



# K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109



DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES

## REPORT OF FDP:

“The Challenges and Opportunities for Women in Science, Technology,  
Engineering & Mathematics (STEM)

### Brochure:

#### **K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**

(Approved by AICTE, Affiliated to VTU &  
Accredited by NAAC)

# 15, Mallasandra, off Kanakapura Road,  
Bangalore - 560109  
[www.ksscm.edu.in](http://www.ksscm.edu.in)



**KSSEM**

#### **FIVE DAY FACULTY DEVELOPMENT PROGRAMME**

ON

**THE “CHALLENGES AND  
OPPORTUNITIES FOR WOMEN IN  
SCIENCE, TECHNOLOGY,  
ENGINEERING & MATHEMATICS”  
(STEM)**

**“HYBRID MODE”**

**OCTOBER 17<sup>TH</sup> TO 21<sup>ST</sup> - 2022**

**Organized by**

**DEPARTMENT OF CIVIL ENGINEERING**

#### **ABOUT THE INSTITUTION**

The Kammavari Sangham, a multi-activity non-profit oriented voluntary service organization, was established in the year 1952 with the sole objective of providing charitable service to community and society. The Sangham has diversified its activities since its establishment over five decades ago. With a firm belief that quality and meaningful education only can lay the strong foundation for bringing about economic and social changes to the lives of thousand, the Sangham went about establishing educational institutions, starting with K.S. Polytechnic in 1992. Enthused with this success of its foray into technical education, the Sangham then started the K.S Institute of Technology (KSIT), its first Engineering College in the year 1999. Following the success of KSIT, the Sangham ventured onwards to start yet another technical institution, oriented towards advanced studies and research, and thus, the K.S Group of Institutions (KSGI) was born in 2010. KSGI was renamed as K.S.School of Engineering & Management in 2011. K.S.School of Architecture was established in the year 2015 and followed by K S P U College in the year 2022.

#### **ABOUT THE DEPARTMENT**

Department of Civil Engineering is established in the year 2010 and offers four year undergraduate course leading to Bachelor's degree in Civil engineering affiliated to Visveswaraya Technological University, Belgaum. Department of Civil Engineering also offers Masters in Structural Engineering program since 2013. Research centre has been established in the year 2016-17 with more than 10 research scholars. The Department aims at producing eminent Civil Engineers for the Nation and also across the Globe. The Department has eminent faculty with wide range of experience in consultancy, research, teaching, training and field experience which will help the

#### **AIM OF THE FDP**

- To throw light on the challenges faced by women in STEM and sensitize on the opportunities available for them.
- The speakers will share their experience with the audience on how to overcome the psychological and physiological barriers.
- This conference also aims at changing the mind-set of the policy makers, employers, colleagues, students and society at large.
- Gender equality will bring new perspective to the industry and provide better future for Indian women in STEM.

#### **PATRONS**

- **Sri. R Rajagopal Naidu**  
President Kammavari Sangham
- **Sri R Leela Shankar Rao**  
Secretary Kammavari Sangham
- **Sri T Neerajakshulu Naidu**  
Treasurer Kammavari Sangham

#### **ADVISORY COMMITTEE**

- **Dr. H P Khincha**  
Chairman, Academic Advisory Board, KSGI
- **Dr. K V A Balaji**  
CEO, KSGI
- **Dr. K N Balasubramanya Murthy**  
Member, KSGI
- **Dr. K Rama Narasimha**  
Principal, KSSEM
- **Prof. B K Raghu Prasad**  
Formerly Prof IISC, Bangalore

<b>CONVENOR</b> Dr. Vijayalakshmi Akella Prof. & Head, Dept. Of Civil Engineering, KSSEM	
<b>CO- CONVENOR</b> Dr. Arekai Vijay Prof., Dept. Of Civil Engineering, KSSEM Ms Saisushma B A Asst. Prof., Dept. Of Civil Engineering, KSSEM	
<b>CHIEF GUEST</b> Sailaja P Vice President, Customer Delivery Head -Banking. TCS- Financial Solutions	
<b>RESOURCE PERSONS</b>	
1	Sailaja P Vice President, Customer Delivery Head - Banking, TCS- Financial Solutions
2	R. Subha Rtd PCCF & Head of Forest Force, Telangana Advisor, Govt of Telangana- Forestry Affairs
3	Sajit T C CHRO- BLAL & Board Director- KIAF
4	Dr. Alka Kutakarni Registrar, D Y Patil University
5	Anuradha S Prakash Scientist, ISRO
6	Dr. Pratima Khandelwal Founder, Fly High (Educational Excellence Services), Bangalore
7	Mr. Nagesh Ramamurthy Practicing Consultant & Toast Master
8	Dr. Sapna Devendra Regional Manager, Ambuja Cements
9	Nandita Chakraborty Quality Head, Namma Metro
10	Ar. Vedavathi Practicing Architect

#### ELIGIBILITY

Faculty members and students of engineering colleges recognized by AICTE, Engineers and Architects are eligible to attend the seminar. We look forward for participation of MEN in our discussions, around gender equity in the work place & make organizational diversity efforts more successful.

Confirmation of eligible candidates will be on a first come first serve basis, upto a maximum of 80 candidates.

#### ORGANIZING COMMITTEE

1. Mr. Veerendra Kumar M, Associate Prof.
2. Dr. Rashmi H R, Associate Professor
3. Mr. Naveena M P, Assistant Professor
4. Ms Sushma M, Assistant Professor
5. Ms Anrutha D, Assistant Professor
6. Mr. Manjunath B, Assistant Professor
7. Mr. Prashanth M, Assistant Professor
8. Mr. Shashi Prasad N, Assistant Professor

#### FOR FURTHER CONTACT DETAILS

Ms Saisushma B A (+91- 9880683009)  
Assistant Professor, KSSEM.

Mr. Shashi Prasad N (+91- 9632081005)  
Assistant Professor, KSSEM.

#### NO REGISTRATION FEE !

Complete the registration using the  
Google form

<https://forms.gle/Cty4KmYyCNeS3NnM6>

OR

SCAN QR CODE TO REGISTER



On or before 14<sup>th</sup> October 2022  
"HYBRID MODE"

#### K. S. SCHOOL OF ENGINEERING AND MANAGEMENT



**KSSEM**

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Accredited by NAAC)

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Bangalore - 560109  
[www.kssem.edu.in](http://www.kssem.edu.in)

Organized by  
DEPARTMENT OF CIVIL ENGINEERING

## Report

### Faculty Development Program (FDP) Report

**Title:** The Challenges and Opportunities for Women in Science, Technology, Engineering & Mathematics (STEM)

**Date:** 17<sup>th</sup> October 2022 to 21<sup>st</sup> October 2022, K. S. School of Engineering and Management, Bangalore.

**Participants:**

- 1) Dr. Jalaja P
- 2) Mrs. Shylaja K R
- 3) Mrs. Lakshmi C

#### Summary:

The topic of "Challenges and Opportunities for Women in Science, Technology, Engineering, and Mathematics (STEM)" in a Faculty Development Program (FDP) is crucial in addressing gender disparities and fostering diversity in these fields.

This FDP delves into the multifaceted landscape of STEM, examining the unique hurdles women face and the promising avenues available to enhance their participation and success. It begins by acknowledging the historical underrepresentation of women in STEM and the persistent barriers such as gender bias, stereotype threat, and lack of mentorship and support

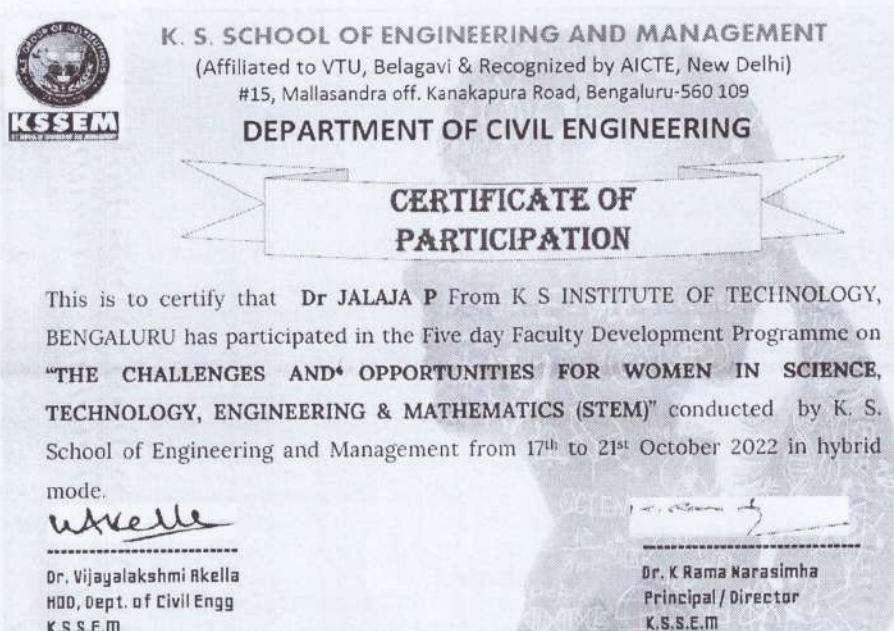
networks. These challenges often lead to lower retention rates, limited career advancement opportunities, and decreased confidence among women in STEM disciplines.

Overall, this FDP aims to empower educators and stakeholders to create a more inclusive and equitable STEM community, where women can thrive and contribute their talents and perspectives to address the complex challenges of the future. Through collaborative efforts and a commitment to diversity and inclusion, we can build a stronger and more resilient STEM workforce that reflects the rich diversity of society.

### **Objectives of the FDP**

The objective of the Faculty Development Program (FDP) on " The Challenges and Opportunities for Women in Science, Technology, Engineering & Mathematics (STEM) " is to Increase awareness among faculty members about the unique challenges faced by women in STEM fields, including gender bias, stereotype threat, and unequal access to resources and opportunities. Also, explore the underlying factors contributing to the underrepresentation of women in STEM disciplines, including societal norms, institutional practices, and individual biases.

### **Submitted by**



**Dr. Jalaja P**



**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
 (Affiliated to VTU, Belagavi & Recognized by AICTE, New Delhi)  
 #15, Mallasandra off. Kanakapura Road, Bengaluru-560 109

**DEPARTMENT OF CIVIL ENGINEERING**

**CERTIFICATE OF PARTICIPATION**

This is to certify that **SHYLAJA K R** from **KSIT** has participated in the Five day Faculty Development Programme on "THE CHALLENGES AND OPPORTUNITIES FOR WOMEN IN SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS (STEM)" conducted by K. S. School of Engineering and Management from 17<sup>th</sup> to 21<sup>st</sup> October 2022 in hybrid mode.

*Handwritten signature of Dr. Vijayalakshmi Akella*

Dr. Vijayalakshmi Akella  
 HOD, Dept. of Civil Engg  
 K.S.S.E.M

*Handwritten signature of Dr. K Rama Narasimha*

Dr. K Rama Narasimha  
 Principal / Director  
 K.S.S.E.M

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**Mrs. Shylaja K. R**



**K. S. SCHOOL OF ENGINEERING AND MANAGEMENT**  
 (Affiliated to VTU, Belagavi & Recognized by AICTE, New Delhi)  
 #15, Mallasandra off. Kanakapura Road, Bengaluru-560 109

**DEPARTMENT OF CIVIL ENGINEERING**

**CERTIFICATE OF PARTICIPATION**

This is to certify that **LAKSHMI C** from **KS INSTITUTE OF TECHNOLOGY, BENGALURU** has participated in the Five day Faculty Development Programme on "THE CHALLENGES AND OPPORTUNITIES FOR WOMEN IN SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS (STEM)" conducted by K. S. School of Engineering and Management from 17<sup>th</sup> to 21<sup>st</sup> October 2022 in hybrid mode.

*Handwritten signature of Dr. Vijayalakshmi Akella*

Dr. Vijayalakshmi Akella  
 HOD, Dept. of Civil Engg  
 K.S.S.E.M

*Handwritten signature of Dr. K Rama Narasimha*

Dr. K Rama Narasimha  
 Principal / Director

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**Mrs. Laksmi C**

*Handwritten signature of HOD*  
**SIGNATURE OF HOD**  
 Head of the Department  
 Dept. of Science and Humanities

*Handwritten signature of Principal*  
**SIGNATURE OF PRINCIPAL**  
 PRINCIPAL  
 K.S. INSTITUTE OF TECHNOLOGY



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**DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES**

## REPORT OF FDP:

“Taking Research to Next Level”

### Brochure:



Accredited by NAAC & NBA\*

**SVCE** BENGALURU

**SRI VENKATESHWARA COLLEGE OF ENGINEERING**

— Affiliated to VTU, Approved by AICTE, Recognised by UGC u/s 2(f) & 12(B)—

Free FDP on Taking Research to the  
Next level

05.25 September 2022



Organizer: Department of Mechanical Engineering and Department of  
Basic Science, Sri Venkateshwara College of Engineering

### About the FDP

- When: 26th to 30th September 2022
- Free Registration
- E- certificates will be provided for all the participants

Every day 1 session (2.30 to 4.00 PM) will be delivered. The key topics covered are Overview of IPR, Planning Research, Funding agencies for Research, Article and Proposal writing.

## **Report**

### **Faculty Development Program (FDP) Report**

**Title:** Taking Research to Next Level'

**Date:** 17<sup>th</sup> October 2022 to 21<sup>st</sup> October 2022, SVCE Bangalore.

**Participants:** 1) Dr. Venkataramana B. S

### **Summary:**

The topic "Taking Research to the Next Level" in a Faculty Development Program (FDP) embodies the aspiration to enhance the quality, impact, and relevance of academic research across disciplines.

This FDP is designed to empower faculty members to elevate their research endeavors to new heights of excellence and significance. It addresses the evolving landscape of academic research, recognizing the need for scholars to adapt to changing methodologies, technologies, and societal demands.

Moreover, the FDP emphasizes the importance of ethical research practices, integrity, and transparency in all stages of the research process. It encourages participants to critically evaluate the societal implications of their research and to actively engage with stakeholders to ensure that their work addresses real-world problems and contributes to positive social change.

### **Objectives of the FDP**

To equip faculty members with advanced research methodologies, interdisciplinary collaboration skills, and innovative approaches necessary to elevate the quality, impact, and relevance of their research projects, thereby advancing knowledge within their fields and contributing to positive societal change.

Submitted by

Accredited by NAAC & NBA

**SVCE** BENGALURU

SVENKATESHWARA COLLEGE OF ENGINEERING  
—Member YRI, Approved by AICTE, Approved by IQAC in 2015, 2018—

**CERTIFICATE OF PARTICIPATION**

**PRESENTED TO**

Venkataramana BS  
of  
KS Institute of Technology  
In recognition for participation in

One Week Online Faculty Development Programme on "Taking Research to Next Level" organized by Department of Mechanical Engineering & Department of Basic Science, in Association with IQAC, ISNT and IIC Cell, Sri Venkateshwara College of Engineering, Bengaluru from 26<sup>th</sup> to 30<sup>th</sup> September 2022.

Dr. K Srinivasa Rao  
Co-Convener

Dr. Sunil S  
Convener

Dr. Nageswara Gupta M  
Principal

ARIIA  
RANKING OF INSTITUTIONS  
OF INNOVATION ACHIEVEMENTS

IQAC

IGAUGE  
INDIAN COLLEGE RATING  
GOLD

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Dr. Venkatarana B. S

SIGNATURE OF HOD  
Head of the Department  
Dept. of Science and Humanities  
K.S. Institute of Technology  
Bengaluru - 560 109

SIGNATURE OF PRINCIPAL  
PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.



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**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

**DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES**

**REPORT OF FDP:**

**“Polymer Composites for Engineering Applications”**

**(PCEA – 2023)**

**Brochure:**



**BMS COLLEGE OF ENGINEERING**  
DEPARTMENT OF CHEMISTRY

**Cordially invites you to the inauguration of**  
**One week Faculty Development Program**

**on**

**“POLYMER COMPOSITES FOR ENGINEERING APPLICATIONS”**  
**(PCEA – 2023)**

**From**

**22<sup>nd</sup> – 26<sup>th</sup> MAY 2023**

**Chief Guest**

**PROF. PRAVEEN C RAMAMURTHY**

Professor, Department of Materials Engineering, IISc, Bengaluru

**Presided by**

**DR S MURALIDHARA**  
PRINCIPAL, BMSCE

**DR SURESH R REDDY**  
VICE PRINCIPAL (ACADEMIC), BMSCE

**DR BHEEMSHA A**  
VICE PRINCIPAL (ADMIN), BMSCE

**DATE: 22<sup>nd</sup> May 2023 at 10:30 AM**

**VENUE:**

Auditorium 2, Platinum Jubilee Block,  
BMSCE, Bull temple road, Bengaluru - 19



 <b>Faculty Development Program on "Polymer Composites for Engineering Applications" (PCEA-2023)</b> <b>22-26 May 2023 (Blended mode)</b> <b>SCHEDULE</b>		
	<b>Time</b>	<b>Program</b>
<b>22-05-2023</b> <b>MONDAY</b> <b>(OFFLINE)</b> VENUE: Auditorium-2, Platinum Jubilee Block, BMSCE	9:00 AM - 10:00 AM	Registration
	10:30 AM - 11:00 AM	Inauguration
	11:00 AM - 12:30 PM	Key note address Dr. Praveen C Ramamurthy Professor, Dept. of Materials Engineering, Indian Institute of Science, Bengaluru.
	12:30 PM - 2:00 PM	Lunch Break
	2:00 PM - 3:15 PM	Dr. Prashantha Kalappa Professor - ACU Research and Innovation Centre Dean - School of Natural Sciences Adichunchanagiri University, Mandya District, Karnataka.
	3:15 PM - 4:30 PM	<b>Dr. Nataraj S K</b> Professor, CNMS, Jain University, Bengaluru
	4:30 PM - 4:45 PM	High Tea
<b>23-05-2023</b> <b>TUESDAY</b> <b>(ONLINE)</b>	<b>DAY 2</b>	
	10:30 AM - 11:45 AM	Dr. Mahesh Padaki, Associate Professor, CNMS, Jain University, Bengaluru
	11:45 AM - 12:00 PM	Break
	12:00 PM - 01:15 PM	Dr. Anil Chandra Assistant Professor, Department of Mechanical Engineering, BMSCE
	01:15 PM - 02:00 PM	Lunch Break
02:00 PM - 03:15 PM	Dr. Sanjeev P Maradur Associate Professor, Materials Science Division, PPISR, Bengaluru	
<b>24-05-2023</b> <b>WEDNESDAY</b> <b>(ONLINE)</b>	<b>DAY 3</b>	
	12:00 PM - 01:15 PM	Dr. Revansiddappa M Professor, PES University, Electronic City Campus, Bengaluru
	01:15 PM - 02:00 PM	Lunch Break
	02:00 PM - 03:15 PM	Dr. Anantharaman Dhanabalan Chief Scientist, SABIC Research & Technology PVT Limited, Bengaluru
	03:15 PM - 4:00 PM	Break

	4:00 PM - 5:15 PM	Dr. Suryasarthi Bose, Professor, Indian Institute of Science, Bengaluru
<b>DAY 4</b>		
<b>25-05-2023</b> <b>THURSDAY</b> <b>(ONLINE)</b>	10:30 AM - 11:45 AM	Dr. Padmavathy Nagarajan Solution Scientist at Merck Life Science, Bengaluru
	11:45 AM - 12:00 PM	Break
	12:00 PM - 01:15 PM	<b>Dr. Shivanand</b> Senior Lead Scientist at ITC Limited, Bengaluru
	01:15 PM - 02:00 PM	Lunch Break
	02:00 PM - 03:15 PM	Dr. Lakshmi Vellanki Assistant Professor, NITK Surathikal
<b>DAY 5</b>		
<b>26-05-2023</b> <b>FRIDAY</b> <b>(OFFLINE)</b> VENUE: Seminar Hall, 4 <sup>th</sup> Floor, Platinum Jubilee Block, BMSCE	10:00 AM - 11:15 AM	Dr. Natarajan Professor, RVCE, Bengaluru
	11:15 AM - 12:00 PM	Valedictory Chief Guest - Dr. Natarajan Professor, RVCE, Bengaluru
	12:00 PM - 12:30 PM	High Tea

Note: Zoom link for online sessions will be shared you through WhatsApp group.

## Report

### **Faculty Development Program (FDP) Report**

**Title:** Polymer Composites for Engineering Applications - (PCEA - 2023)

**Date:** 22<sup>nd</sup> - 26<sup>th</sup> May 2023, BMS College of Engineering, Bangalore.

**Participants:** 1) Dr. Kiran Kumar S R  
2) Mrs. Radhika N

### **Summary:**

The topic of "Polymer Composites for Engineering Applications" in an FDP (Faculty Development Program) suggests a focus on exploring the utilization of polymer composites in various engineering fields. Polymer composites are materials composed of two or more distinct constituents that, when combined, produce a material with enhanced properties compared to the individual components alone.

In this context, the FDP likely aims to cover several aspects:

- Understanding the unique properties of polymer composites, including their mechanical, thermal, electrical, and chemical properties. This would involve discussing how the combination of polymers with reinforcing materials such as fibers or particles can result in composites with tailored characteristics.
- Exploring different manufacturing techniques for producing polymer composites, including methods such as injection molding, compression molding, filament winding, and resin transfer molding. Participants may learn about the advantages and limitations of each process and their suitability for different applications.
- Examining the diverse range of engineering applications where polymer composites are used, including aerospace, automotive, construction, marine, and sports equipment. Participants may gain insights into the specific requirements and challenges of each application area and how polymer composites address them.
- Discussing approaches to design and optimize polymer composite structures for specific engineering applications. This could involve topics such as material selection, geometric optimization, and performance prediction through modelling and simulation.
- Considering the long-term performance and environmental impact of polymer composites. This may involve discussions on durability, degradation mechanisms, recycling, and the development of sustainable composite materials.

Overall, the FDP on "Polymer Composites for Engineering Applications" aims to equip participants with knowledge and skills to effectively utilize polymer composites in engineering practice, fostering innovation and advancements in various industries.

### **Objectives of the FDP**

The objective of the Faculty Development Program (FDP) on "Polymer Composites for Engineering Applications" is to provide participants with comprehensive knowledge, skills, and resources to effectively understand, utilize, and innovate with polymer composites in diverse engineering contexts.

Overall, the FDP aims to empower participants with the necessary expertise and resources to harness the potential of polymer composites for addressing contemporary engineering challenges and driving innovation in various industries.

**Submitted by**


**B.M.S. College of Engineering**  
(An Autonomous Institution Affiliated to VTU with NBA & NAAC A++ Accreditation)  
**One-week Faculty Development Program on  
"Polymer Composites For Engineering Applications"  
(PCEA-2023)**  
**Certificate of Participation**

This is to certify that Mr./Mrs./Dr. Kiran Kumar S. R, from Bangalore has participated in One-week Faculty Development Program on "Polymer Composites For Engineering Applications (PCEA-2023)" (blended-mode) held from 22<sup>nd</sup> to 26<sup>th</sup> May 2023, conducted by the Department of Chemistry, B.M.S. College of Engineering, Bengaluru-560019.


  
Dr. M.S. Dharmaprakash  
Organizing Chair & Head,  
Dept. of Chemistry, BMSCE

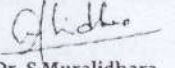
  
Dr. S Muralidhara  
Principal, BMSCE

**Dr. Kiran Kumar S.R**

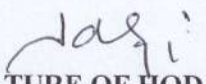
**B.M.S. College of Engineering**  
(An Autonomous Institution Affiliated to VTU with NBA & NAAC A++ Accreditation)  
**One-week Faculty Development Program on  
"Polymer Composites For Engineering Applications"  
(PCEA-2023)**  
**Certificate of Participation**


This is to certify that Mr./Mrs./Dr. Neelam Patil Radhika from Bangalore has participated in One-week Faculty Development Program on "Polymer Composites For Engineering Applications (PCEA-2023)" (blended-mode) held from 22<sup>nd</sup> to 26<sup>th</sup> May 2023, conducted by the Department of Chemistry, B.M.S. College of Engineering, Bengaluru-560019.

  
Dr. M.S. Dharmaprakash  
Organizing Chair & Head,  
Dept. of Chemistry, BMSCE

  
Dr. S Muralidhara  
Principal, BMSCE

**Mrs. Neelam Patil Radhika**

  
**SIGNATURE OF HOD**  
Head of the Department  
Dept. of Science and Humanities  
K. S. Institute of Technology

  
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**DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES**

## **REPORT OF FDP:**

“Recent Trends in Materials Science and Engineering (RTMSE-2022)”

### **Brochure:**

 **Dayananda Sagar**  
Academy of Technology and Management

An IQAC initiative  
• One week online  
Faculty Development Program on  
Recent Trends in Materials Science and Engineering  
(RTMSE-2022)  
12-16 September 2022

*Organized by*  
**Department of Chemistry**  
Dayananda Sagar Academy Technology & Management  
Bangalore - 560082

## **Report**

### **Faculty Development Program (FDP) Report**

**Title:** Recent Trends in Materials Science and Engineering (RTMSE-2022)

**Date:** 12<sup>th</sup> September 2022 to 16<sup>th</sup> September 2022, Dayananda Sagar Academy Technology & Management, Bangalore.

**Participants:** 1) Dr. Renuka C

### **Summary:**


The topic of "Recent Trends in Materials Science and Engineering" in a Faculty Development Program (FDP) offers an invaluable opportunity for educators and researchers to explore the latest advancements and emerging technologies in this dynamic field.


The Faculty Development Program on "Recent Trends in Materials Science and Engineering" aims to provide participants with a comprehensive understanding of the latest developments, innovations, and research trends shaping the discipline. Materials science and engineering play a pivotal role in driving technological progress across various sectors, from electronics and energy to healthcare and infrastructure.

### **Objectives of the FDP**

The objective of the Faculty Development Program on "Recent Trends in Materials Science and Engineering" is to provide faculty members with a comprehensive understanding of the latest advancements, methodologies, and applications in the field, enabling them to incorporate cutting-edge knowledge into their teaching, research, and professional practice.



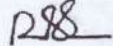
Submitted by

 **DAYANANDA SAGAR ACADEMY OF TECHNOLOGY & MANAGEMENT**  
Opp. Art of Living, Udeyapura, Kanakapura Road, Bangalore- 560082  
(Affiliated to Visvesvaraya Technological University, Belagavi and Approved by AICTE, New Delhi) (All the Branches Accredited by NBA, New Delhi) (NAAC Accredited with A+ Grade)

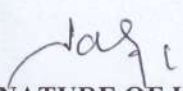


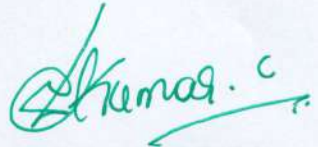
**Department of Chemistry**  
**CERTIFICATE OF PARTICIPATION**

This is to certify that, *Dr. Renuka C*  
from *K.S. Institute of Technology, Bangalore*  
attended the One-Week Online Faculty Development Programme on "Recent Trends in Materials Science and Engineering (RTMSE-2022)" organized by the Department of Chemistry, Dayananda Sagar Academy of Technology & Management, Bangalore from 12<sup>th</sup> September to 16<sup>th</sup> September 2022.

 Convenor (Dr. Nandini A. Pattanashetti)	 HOD, Chemistry (Dr. Shivakumar B.S.)	 Principal, DSATM (Dr. M. Ravishankar)
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**Dr. Renuka C**

  
**SIGNATURE OF HOD**  
Head of the Department  
Dept. of Science and Humanities  
K.S. Institute of Technology  
Bangaluru - 560 109

  
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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## FDP REPORT

ON

### Artificial intelligence and data Science in image Analysis

Venue: CMRIT

Date:13/02/2023 to 17/02/2023

Dr. Vaneeta M, Professor, Department of AIML,KSIT attended a FDP on Artificial intelligence and data Sciene in image Analysis Organized by Department of Electronics and Communication Engineering, CMR Institute of Technology, Bengaluru from 13/02/2023 to 17/02/2023.

#### About Institute

Established in 2000, the CMR Institute of Technology imparts quality, pragmatic education in engineering and management to help students hone their analytical abilities and develop their creative thinking skills. CMRIT meets the rapidly growing need for technology professionals by nurturing young minds in an innovative and progressive learning environment. Situated in the very heart of South India's IT corridor, the CMRIT campus in Whitefield, Bengaluru is centrally located, well connected and easily accessible.

At CMRIT, we are dedicated to holding aloft the flame of Sri Chikka Munisappa Reddy's dreams. Towards this end, we are committed to promoting technical education as a catalyst to the growth and development of the country and society at large. With world-class infrastructure and experienced faculty, CMR Institute of Technology is the preferred destination for technocrats and managers who wish to shape the future.

#### About Department

The Department of Electronics and Communication Engineering was started in the academic year 2000-2001. The Department offers an undergraduate programme in the field of Electronics and Communication Engineering for which the student intake is currently 240 and postgraduate program MTech in VLSI design and embedded systems for which the student intake is currently 24. The Department of Electronics and Communication Engineering is approved by the All India Council for Technical Education (AICTE), and is permanently affiliated to Visvesvaraya Technological University (VTU), Belgaum in Karnataka. The National Board of Accreditation, New Delhi accredits the Department. The Department has established a Research Centre under VTU to facilitate research activities for both faculty and students. Students may also opt to pursue an M.S. through the research programme.

#### ORGANIZING COMMITTEE:

##### PATRONS:

Shri. K. C. Ramaswamy  
Chairman, CMRIT

Dr. Sathish Ramaswamy  
President, CMRIT

Shri. K. R. Jayadev  
CEO, CMRIT

##### ADVISORY COMMITTEE:

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Principal, CMRIT

Dr. B. Narasimha Murthy,  
Vice-Principal, CMRIT

##### CONVENER:

Dr. Ethimathas H. HO-D-ECT, CMRIT

##### Programme Coordinator:

Dr. Kavitha D.,  
Assistant Prof. ECT Dept, CMRIT Bangalore

##### RESOURCE PERSONS

1. Dr. B. Sanyarayanan, Ph. D, Scientific Officer (II), Tata Institute of Fundamental Research, Mumbai.
2. Dr. Kiruba, Data Scientist, Elpis IT solutions PVT LTD., Bangalore.
3. Mr. Gaurav Adke, Data Scientist, Michelin Tyres, Pune.
4. Dr. G. Kavitha, Madras Institute of Technology (MIT Campus), Chennai.
5. Dr. S Geetha, Professor, VIT, Chennai
6. Dr. Sudhakar M.S, VIT, Vellore
7. Dr. Lavanya, SRM Institute of Technology, Chennai
8. Dr. Pallavi adke, PCCOER, Pune

#### 5 DAYS online FACULTY DEVELOPMENT PROGRAM (FDP) ON

"Artificial Intelligence and Data Science in Image Analysis"

For Faculty, Research Scholars & Industry person

13/02/2023 to 17/02/2023



Organized by  
Department of Electronics and Communication Engineering,  
CMR Institute of Technology, Bengaluru-560037



## About FDP

Artificial intelligence revolutionizes image analysis by employing advanced algorithms to extract meaningful insights from visual data, enhancing accuracy and efficiency." "Data science techniques in image analysis leverage statistical models and machine learning to uncover patterns, trends, and anomalies within images, driving innovation across various fields." This FDP allows robust collaboration between AI researchers and health practitioners to on socio-technological challenges and come up with state-of-the-art technology directions in the interdisciplinary field of engineering and medicine.

During this FDP participant will understand

- Fundamentals, applications, recent trends & challenges in Image Processing & Computer Vision.
- Fundamentals of AI and Data Science.
- Data science and its applications.
- Image Enhancement using Deep Learning Techniques.

SUBMITTED BY: Dr. Vaneeta M *Mlay*



*Mlay*  
SIGNATURE OF HOD

Head of the Department  
Artificial Intelligence & Machine Learning  
K.S. Institute of Technology  
Bengaluru - 560 109

*[Signature]*  
SIGNATURE OF PRINCIPAL

PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109





**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109**

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## FDP REPORT

ON

### Embedded System Design using ARM

NPTEL

Date:01/02/2022 to 01/10/2022

Mrs. Sahana Sharma, Assistant Professor, Department of AIML, KSIT completed NPTEL online certification FDP course on **Embedded System Design using ARM** from 1-02-2022 to 1-10-2022 (16 weeks).



#### ABOUT THE COURSE


It includes basic concepts of embedded system design, with particular emphasis on hands-on and demonstration sessions on system design using ARM microcontrollers. Keeping in view of the recent developments, this course will be based on state-of-the-art microcontroller boards and programming environments. This course will also help the participants to understand the developmental aspects of Internet of Things (IoT) based designs. Starting from the basics, the participants will be introduced to various interfacing issues with sensors and actuators.


With hands-on sessions on:

- Temperature sensing unit, Light sensing unit, Sound sensing unit.

- Feedback control system, relay control unit, driving electrical appliances like motors, bulb, pump, etc.
- Object tracking using GPS and GSM.
- Introduction to Internet of Things, smart home concepts, motion sensing using accelerometer, control of appliances over SMS.


SUBMITTED BY: Sahana Sharma *Sharma*






## NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to  
**SAHANA SHARMA**  
for successfully completing the course



### Embedded System Design with ARM


with a consolidated score of **75** %

Online Assignments	22.38/25	Proctored Exam	52.75/75
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Total number of candidates certified in this course: 305

Jul-Sep 2022  
(8 week course)

*Debjani*  
Prof. Debjani Chakraborty  
Coordinator, NPTEL  
IIT Kharagpur




Indian Institute of Technology Kharagpur



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to validate the certificate



No. of credits recommended: 2 or 3

*Onlay*

**SIGNATURE OF HOD**

Head of the Department  
Artificial Intelligence & Machine Learning  
K.S. Institute of Technology  
Bengaluru - 560 109

*Prakash*

**SIGNATURE OF PRINCIPAL**

PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109**

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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## FDP REPORT

ON

## APPLIED ACCELERATED ARTIFICIAL INTELLIGENCE

NPTEL

Date:01/02/2022 to 01/09/2022

Ms. Amulyashree S, Assistant Professor, Department of AIML, KSIT completed NPTEL online certification FDP course on **APPLIED ACCELERATED ARTIFICIAL INTELLIGENCE** from 1-02-2022 to 1-09-2022 (12 weeks).

**Weekly breakup**  
Applied Accelerated Artificial Intelligence

- **Week 1:** Introduction to AI System Hardware CPU, RAM, GPU, Interconnects, Storage Network Controller; Introduction to AI Accelerators GPUs (Lecture ); Introduction to System Software Operating System, Virtualization, Cloud, (Lecture)
- **Week 2:** Introduction to Containers and IDE (Jupyter Demo) (Lecture + Demo ); Scheduling and Resource Management Introduction to schedulers and orchestration tools (Lecture ); DeepOps: Deep-dive into Kubernetes with deployment of various AI-based (Lecture + Demo)
- **Week 3:** DeepOps (contd) (Lecture + Demo) principles for building High Performance clusters for AI (Lecture ); Implementation details for building High Performance compute clusters for AI (contd) (Lecture)
- **Week 4:** Frameworks for Accelerated Deep Learning Workloads - PyTorch (Lecture ); Frameworks for Accelerated Deep Learning Workloads - PyTorch (contd) (Lecture + Demo ); Accelerated PyTorch (Lecture + Demo)
- **Week 5:** Frameworks for Accelerated Deep Learning Workloads - TensorFlow (Lecture ); Frameworks for Accelerated Deep Learning Workloads - TensorFlow (contd) (Lecture + Demo ); Accelerated TensorFlow (Lecture + Demo)
- **Week 6:** Optimizing Deep Learning Training: Accelerated Mixed Precision (Lecture + Demo ); Optimizing Deep Learning Training, Transfer Learning (Lecture + Demo)
- **Week 7:** Fundamentals of Distributed AI Computing: Multi-GPU and multi-node implementation (MPI, NCCL, RDMA) (Lecture ); Distributed AI Computing, Horovod (Lecture + Demo)
- **Week 8:** Challenges with Distributed Deep Learning Training Convergence (Lecture + Demo ); Fundamentals of Accelerating Deployment (Lecture + Demo)
- **Week 9:** Accelerating neural network inference in PyTorch and TensorFlow (Lecture + Demo ); Accelerated Data Analytics (Lecture + Demo); Accelerated Machine Learning (Lecture + Demo)







### ABOUT THE COURSE

This course will cover the fundamentals of the compute capabilities and the system software required for implementing artificial intelligence (AI) based solutions with accelerated computing on industrial use cases such as the one in the domains of Smart City. The course will discuss end to end deployments of industrial use cases like using large language models with demonstration, and hence will help participants use state-of-the-art AI SDKs effectively to solve complex problems.

During this FDP participant will understand

- Practical application of AI techniques with a specific emphasis on acceleration methods.
- This could involve leveraging hardware accelerators like GPUs or TPUs, or optimizing algorithms for faster computation.
- Gain insights into deploying AI models efficiently in real-world scenarios where speed and performance are crucial.

SUBMITTED BY: Ms. Amulyashree S

	<b>NPTEL-AICTE</b> <b>Faculty Development Programme</b> <small>(Funded by the MoE, Govt. of India)</small>	
	This certificate is awarded to <b>AMULYASHREE S</b>	
	for successfully completing the course <b>Applied Accelerated Artificial Intelligence</b> with a consolidated score of <b>66 %</b>	
 Prof. Andrew Thangaraj NPTEL Coordinator IIT Madras	 (Jul-Oct 2022)	 Prof. Dileep N. Malkhede Advisor-I (Research, Institute & Faculty Development) All India Council for Technical Education
Roll No: NPTEL22CS83S44751061		Duration of NPTEL course : 12 Weeks
<p>The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams. This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 24<sup>th</sup> July 2018, similar to other refresher / orientation courses F.No. AICTE / RIFD / FDP through MOOCs / 2017-18</p>		

  
**SIGNATURE OF HOD**  
Head of the Department  
Artificial Intelligence & Machine Learning  
K.S. Institute of Technology  
Bengaluru - 560 109

  
**SIGNATURE OF PRINCIPAL**  
PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.



# **K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109**

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## **FDP REPORT**

**ON**

### **Advanced Tools and Techniques for best research**

**Venue: RVITM**

**Date: 26-09-2022 to 30-09-2022**

**Mrs. Anu Mathews**, Assistant Professor, Department of AIML, KSIT attended a FDP on **Advanced Tools and Techniques for best research** Organized by Department of Information Science and engineering and IPR cell at R V Institute of Technology and Management, Bengaluru from **26-09-2022 to 30-09-2022**.

#### **Objective of the Program:**

The FDP focuses on imparting essential research skills and ethical practices to faculty members and research scholars through expert-led sessions and practical exposure. It aims to equip participants with up-to-date knowledge on diverse research dimensions, enhancing their ability to conduct independent research, formulate successful projects, and effectively communicate their findings in national and international forums.

During this FDP participant will understand

Through lectures and hands-on exercises, participants will gain insights into key aspects such as research topic selection, literature review, project planning, proposal writing, and crafting research papers.

The program emphasizes methodical learning to ensure comprehensive understanding and skill development among participants.

SUBMITTED BY: Mrs. Anu Mathews



RV Institute of Technology and Management®

Department of Information Science & Engineering

&

IPR Cell

**CERTIFICATE OF PARTICIPATION**

This is to certify that

*Mrs. ANU MATHEWS*

*of K.S INSTITUTE OF TECHNOLOGY*

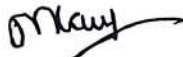
has participated in 5 DAY FACULTY DEVELOPMENT PROGRAMME(Online) on "ADVANCED TOOLS AND TECHNIQUES FOR BEST RESEARCH" jointly organized by the Department of Information Science & Engineering and IPR-Cell during 26<sup>th</sup>- 30<sup>th</sup> September, 2022 at RV Institute of Technology and Management, Bengaluru.



Dr. Latha CA  
HoD, Dept of ISE



Dr. Jayapal R  
Principal, RVITM



SIGNATURE OF HOD

Head of the Department  
Artificial Intelligence & Machine Learning  
K.S. Institute of Technology  
Bengaluru - 560 109



SIGNATURE OF PRINCIPAL

PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109



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DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## FDP REPORT

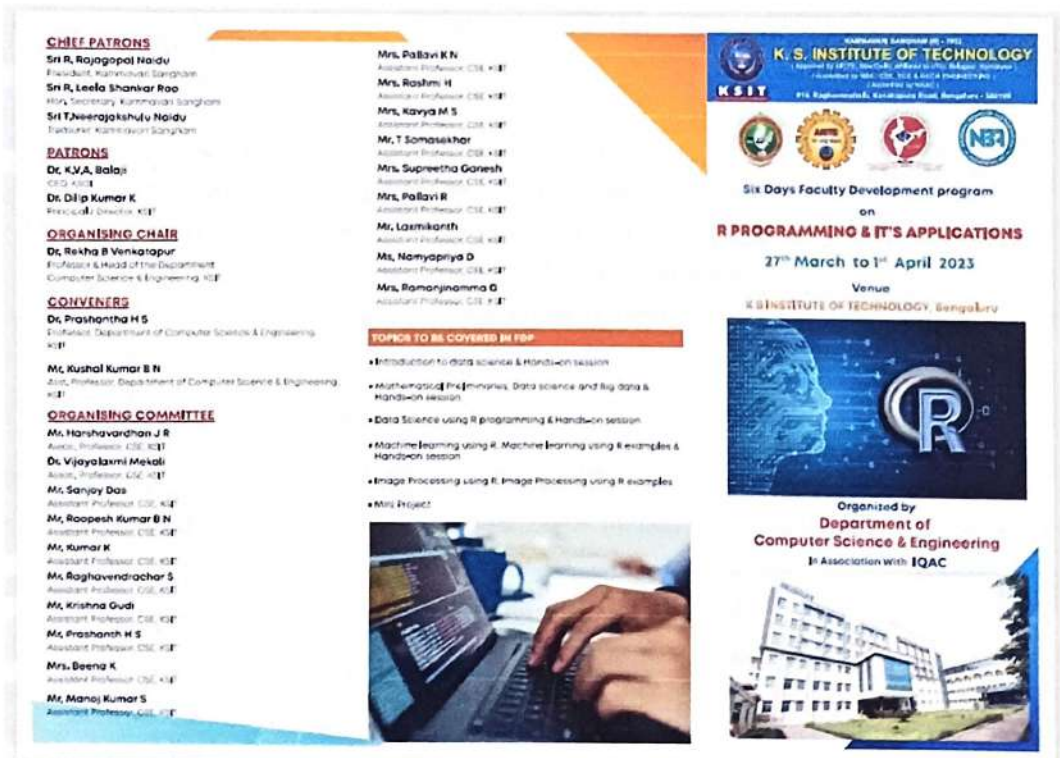
ON

## R Programming and its Applications

Venue: KSIT

Date: 27-03-2023 to 01-04-2023

Mrs. Lakshmi K K, Assistant Professor, Department of AIML, KSIT attended a FDP on R programming and its Applications Organized by Department of Computer Science and engineering at K S Institute of Technology, Bengaluru from 27-03-2023 to 01-04-2023.



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 Vice-Chancellor, Karnataka Sangham  
**Sri Thirunarayanan Naidu**  
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**Dr. D.J. Kumar K**  
 Associate Professor, CSE

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 Professor & Head of the Department  
 Computer Science & Engineering, KSIT

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**Mr. Kuzhal Kumar B N**  
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**Mrs. Pallavi R**  
 Assistant Professor, CSE, KSIT  
**Mr. Lokmikanth**  
 Assistant Professor, CSE, KSIT  
**Ms. Namysriya D**  
 Assistant Professor, CSE, KSIT  
**Mrs. Ramarajamma G**  
 Assistant Professor, CSE, KSIT

**TOPICS TO BE COVERED IN FDP**

- Introduction to data science & Hands-on session
- Mathematical Preliminaries, Data science and Big data & Hands-on session
- Data Science using R programming & Hands-on session
- Machine Learning using R, Machine Learning using R examples & Hands-on session
- Image Processing using R, Image Processing using R examples
- Mini Project

**K. S. INSTITUTE OF TECHNOLOGY**  
 Bangalore  
 #14, Raghuvanahalli, Kanakapura Road, Bengaluru - 5600109

**Six Days Faculty Development program**  
 on  
**R PROGRAMMING & IT'S APPLICATIONS**  
 27<sup>th</sup> March to 1<sup>st</sup> April 2023  
 Venue  
**K S INSTITUTE OF TECHNOLOGY Bangalore**

Organized by  
**Department of**  
**Computer Science & Engineering**  
 In Association With **IQAC**

#### ABOUT SAMMAVEER BANGHAM

The Department of Computer Science and Engineering is established in the year 1993 with the objectives of providing quality service to community and society. The Department has established its activities since its inception over five decades ago with a firm belief that quality and meaningful education can only be the strong foundation for bringing about economic and social changes to the lives of individuals. The Department went ahead establishing its own infrastructure along with its facilities in 1992, followed with the opening of its first B.Tech. programme. Over the years, the Department moved forward starting the B.Tech. programme of Technology (IT) in the year 1995, B.Tech. of Engineering & Management Studies in the year 2001, B.Tech. of Architecture (ASAE) in the year 2003, B.Tech. of Design in 2010. In the following years, these initiatives have paved the way for themselves an excellent niche through academic excellence achieved in a very short span of time by providing the highest accommodation and facilities to the deserving students in the community. It has furthered its commitment to education.

#### ABOUT THE INSTITUTION

V. V. Institute of Technology was established in the year 1985 by the government of Karnataka with a commitment to provide the best technical education. VVI is a strategic, located in Mysore region of Karnataka State Road, Bangalore. The Institution has modern infrastructure with new state-of-the-art equipment and laboratory facilities, well-qualified faculty and an impressive placement record. The objective of VVI is to impart quality education to students and enable them to develop the abilities of problem-solving, creative thinking and adaptability in their career path. VVI is an ISO 9001:2015 certified.

#### ABOUT THE DEPARTMENT

The Department of Computer Science and Engineering is established in the year 1993 and offers B.Tech. in CSE and also for R & D center for Ph.D. scholars. The department is NBA (AICTE) accredited. It has well-qualified, experienced and committed faculty to provide quality industry-focused education to students. The infrastructure, R&D and supports learning skills on the latest technology in the industry. Our mission is to equip professional with social responsibility to become leaders in research, industry and also become entrepreneurs with good ethics. It has several active professional bodies membership like IEEE, IITR, ISTE, and IIT where students learn to do projects, present technical papers and students work together which enables teamwork and leadership qualities. The students won prizes in national-level exhibitions, fests and presented papers in international conferences.

#### ABOUT THE FDP

R is a free, free and Open Source Software (FOSS) or well-organized and sophisticated package that facilitates data analysis, modeling, statistical testing, and forecasting. It is user-friendly, software that allows creating new function commands to solve statistical problems. It runs on a variety of UNIX platforms (and on OS systems such as Linux, Windows, and Mac OS X). It is one of the most preferred open-source languages for scientific and data science. The programming capabilities of R and its capacity to handle large and complex data sets makes it an excellent tool for data scientists to analyze data in their field.

It can be used for simple tasks like more calculations, differential equations, regression, statistical analysis, plotting graphs, etc. Also, it is useful for anyone who wishes to undertake extensive statistical computations and data visualization. It allows you to develop custom artificial intelligence apps and has numerous packages that are used in the field of ML, DL, R programming is a prescribed course for Computer science, Information Science and IIT branches as per VIT 2022 Scheme.

#### METHODOLOGY OF THE FDP

The workshop will be conducted using experts from Industry and academia covering basic applications with practical sessions.

#### BENEFITS OF THE FDP

- On successful completion the workshop participants will be able to:
- Learn basic R programming
  - Learn basic mathematical preliminaries
  - Learn how to do basic statistical analysis using R
  - Learn how to use R for ML and Image Processing applications
  - Certificate for attending a 5 days FDP



#### WHO SHOULD ATTEND

The R workshop will be useful for Faculty of Engineering, UET, Researchers & working Professionals.

#### REGISTRATION FEE

₹ 500 /-

Last Date For Registration: 20-01-2023 (Limited Participants)

[Scan Here For Payment](#)



[Scan Here For Registration](#)



#### REGISTRATION FORM (Offline Mode)

Name: \_\_\_\_\_  
Designation: \_\_\_\_\_  
Department: \_\_\_\_\_  
Institution: \_\_\_\_\_  
Address: \_\_\_\_\_  
Mob No: \_\_\_\_\_  
Email: \_\_\_\_\_  
Date: \_\_\_\_\_

Registration: 500 Rs  
Contact Details for Registration  
Mobile Number: 9929 12168  
Email Number: N. 9999 5268

Signature of Applicant

Signature & Seal of Principal


## About FDP

The FDP on R Programming offers participants a comprehensive understanding of R, a powerful programming language widely used in data analysis, statistics, and visualization. Through expert-led sessions and hands-on exercises, participants will gain proficiency in R programming fundamentals, data manipulation, statistical analysis, and data visualization techniques. The FDP aims to equip participants with practical skills to analyze data, interpret results, and communicate findings effectively.

During this FDP participant will understand

Participants will be proficient in utilizing R for various research and analytical tasks, empowering them to apply their knowledge in academic research, industry projects, and beyond.



SUBMITTED BY: Mrs. Lakshmi K K 

 **K.S. INSTITUTE OF TECHNOLOGY**  
( APPROVED BY AICTE, NEW DELHI; AFFILIATED TO VTU, BELAGAVI, KARNATAKA )  
( ACCREDITED BY NBA : CSE, ECE & MECH ENGINEERING )  
( ACCREDITED BY NAAC )  
#14, RAGHUVANAHALLI, KANAKAPURA ROAD, BENGALURU - 560109

*Certificate of Participation*


This is to certify that

*Ms. Lakshmi K K, Assistant Professor, K.S. Institute of Technology*

has participated for the 6-Days Faculty Development Program on  
**"R PROGRAMMING AND IT'S APPLICATIONS"**  
organized by Department of COMPUTER SCIENCE & ENGINEERING  
in association with IQAC  
from 27<sup>th</sup> March to 1<sup>st</sup> April 2023

 Dr. Prasantha H S CONVENER Prof., Dept of CSE	 Dr. Rekha B Venkatapur Professor & Head, CSE Dept	 Dr. Dilip Kumar K Principal / Director, KSIT
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SIGNATURE OF HOD  
Head of the Department  
Artificial Intelligence & Machine Learning  
K.S. Institute of Technology  
Bengaluru - 560 109

  
SIGNATURE OF PRINCIPAL  
PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
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# K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

## FDP REPORT

ON

### Human Values Education: Why? and How?

Venue: KSIT

Date: 15-05-2023 to 19-05-2023

Ms. Roopa K Murthy, Assistant Professor, Department of AIML, KSIT attended a FDP on **Human Values Education: Why? and How?** Organized by Department of Management Studies and Research Centre at K S School of Engineering and Management, Bengaluru from **15-05-2023 to 19-05-2023**.



  
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www.ksssem.edu.in  
DEPARTMENT OF MANAGEMENT STUDIES AND RESEARCH CENTRE

WE CORDIALLY INVITE YOU TO THE

*5 Days Workshop on  
Human Values Education : Why ? and How?*

ORGANIZED BY THE DEPARTMENT OF  
MANAGEMENT STUDIES AND RESEARCH CENTRE

15TH MAY, 2023 - 19TH MAY, 2023

VENUE: KS ARCHITECTURE SEMINAR HALL  
INAUGURATION TIMINGS : 9.30 AM - 10.30 AM  
SESSION TIMINGS: 11 AM - 3.30 PM

REGISTRATION FEE : Rs 600/-  
FOR REGISTRATION SCAN THE QR CODE



  
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www.ksssem.edu.in  
DEPARTMENT OF MANAGEMENT STUDIES AND RESEARCH CENTRE

Cordially invite you for the 5 days workshop on  
"Human Values Education : Why ? and How? "  
from 15th May, 2023 to 19th May , 2023

RESOURCE PERSON  
Mr. Panduranga Bhatta  
FORMER PROFESSOR -IIM CALCUTTA

Presided by  
Sri. R. Rajagopal Naidu  
Hon. President, Kammavari Sangham

Will Grace the occasion  
Sri. R. Leela Shankar Rao  
Hon. Secretary, Kammavari Sangham

Sri. T. Neerajakshulu Naidu  
Hon. Treasurer, Kammavari Sangham

Dr. K.V.A. Balaji  
CEO, KSIG

Dr. Shekar H S  
HOD-MBA

Dr. K. Rama Narasimha  
Principal, KSSEM

Venue : KS Architecture seminar hall  
Inauguration Timings : 9.30 AM - 10.30 AM  
Session Timings : 11 AM - 3.30 PM


## About FDP

The FDP on Human Values Education: Why? and How? delves into the significance and methodologies of integrating human values into education. Led by subject matter experts, the program aims to facilitate discussions and knowledge sharing on the rationale behind incorporating human values in education and practical strategies for implementation.

During this FDP participant will understand

Participants will explore the importance of fostering values such as empathy, integrity, and social responsibility in educational settings, and learn effective approaches for integrating these values into curricula and teaching practices.

Through interactive sessions and case studies, participants will gain insights into the transformative impact of human values education on learners and society as a whole, equipping them with the tools to promote holistic development and ethical behavior among students.

**SUBMITTED BY: Ms. Roopa K** 



**KSSEM**

Kannavari Sangham (R) 1957  
K. S. GROUP OF INSTITUTIONS  
K. S. SCHOOL OF ENGINEERING AND MANAGEMENT  
Approved by AICTE, New Delhi; Affiliated to VTU, Belagavi, Karnataka; Accredited by NAAC  
[www.kssem.edu.in](http://www.kssem.edu.in)

DEPARTMENT OF MANAGEMENT STUDIES AND RESEARCH CENTRE

**CERTIFICATE OF PARTICIPATION**

*This is to Certify that Dr./Mr./Ms. Roopa K.....  
of K.S.I.T..... college has participated in the 5 days  
Offline Workshop on "Human Values Education: Why? and  
How?" from 15th May, 2023 to 19th May, 2023.*



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**DR. SHEKAR H S**  
HOD-MBA



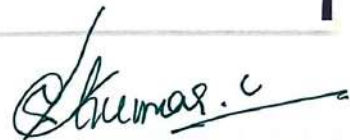
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**DR. K. RAMA NARASIMHA**  
PRINCIPAL/DIRECTOR, KSSEM



**SIGNATURE OF HOD**

Head of the Department  
Artificial Intelligence & Machine Learning  
K.S. Institute of Technology  
Bengaluru - 560 109



**SIGNATURE OF PRINCIPAL**

PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109



**Kammavari Sangham (R)-1952**  
**K.S.INSTITUTE OF TECHNOLOGY**  
**Department of Computer Science & Engineering**  
**FDP REPORT**  
**ON**  
**INTELLECTUAL PROPERTY RIGHTS**

**Venue: JSSETM**

**Date: 12-09-2022 to 16-09-2022**

I, **Dr.Rekha B Venkatapur**, Professor & HOD, Department of CSE, KSIT, attended a Five Days Faculty Development Programme on “Intellectual Property Rights” at JSSATE, Bengaluru on 12th to 16th September 2022.

**Brochure:**

<p><b>CHIEF PATRON</b></p>  <p>His Holiness "Jagadguru Sri Shivarathri Deshikendra Mahaswamigalavaru" President Veerasimhasana Math, Suttur, SriKshethra, JSSMVP, Mysuru.</p> <p><b>PATRONS</b></p> <p>Dr. C G Betsurmath, Executive Secretary, JSSMVP, Mysuru Prof. M H Dhananjaya, Advisor (T), JSSMVP, Mysuru Dr. B. Suresh, Pro-Chancellor, JSSAHER-Mysuru &amp; Director, TED, JSSMVP, Mysuru Dr. H R Mahadevaswamy, Joint Director, TED, JSSMVP, Mysuru.</p> <p><b>CO-PATRON</b></p> <p>Dr. Bhimasen Soragaon, Principal, JSSATE, Bengaluru.</p> <p><b>About CIPAM</b></p> <p>A professional body under the support of Department for Promotion of Industry and Internal Trade (DPIIT) which ensures focused action on issues related to IPRs and addresses the seven identified objectives of the policy. CIPAM assists in simplifying and streamlining of IP processes, apart from undertaking steps for furthering IPR awareness, commercialization and enforcement.</p> 	<p><b>About JSSATE Bengaluru</b></p> <p>JSS Academy of Technical Education (JSSATE) was established in the year 1997 at Bengaluru and is under the umbrella of JSS MahaVidyapeetha, Mysuru. The Campus is located on a sprawling 21.17 acres land surrounded by lush green plantation on the South-Western edge of Bengaluru City. The institution is affiliated to Visvesvaraya Technological University (VTU), Belagavi, India.</p> <p><b>About ISE Department</b></p> <p>The department educates the students from the basic to specialized subjects of computing to disseminate the information science knowledge and technology, and to produce competent Information Science Professionals. The department is an active and vibrant place that has outstanding faculty members with rich experience in academia, industry and research. Faculty use state-of-art teaching aids to ensure better content delivery and facilitate greater student interaction. Our graduates are successful and have found excellent placement in top-ranking companies. The department also organizes various student development programs, extracurricular activities, seminars, workshops from Industry.</p> <p><b>About CSE(AIML) Department</b></p> <p>Bachelor of Engineering (B.E) program in Computer Science and Engineering (Artificial Intelligence and Machine Learning) was started in the year 2021 with an intake of 60. The emergence of the department is also the consequence of the huge demand from the industry, and the need to address emerging real-world applications and research problems arising in this rapidly evolving field. The current intake for the program is 90.</p>	<p style="text-align: center;"><b>COMMEMORATE THE SILVER JUBILEE (2023) CELEBRATION</b></p>   <p style="text-align: center;"><b>ONE WEEK FACULTY DEVELOPMENT PROGRAMME (FDP) (offline)</b></p> <p style="text-align: center;">on</p> <p style="text-align: center;"><b>“Overview: Intellectual Property Rights (IPR), Patent &amp; Trademarks”</b></p> <p style="text-align: center;"><b>12<sup>th</sup> to 16<sup>th</sup> September 2022</b></p>  <p style="text-align: center;"><b>Organized by:</b></p> <p style="text-align: center;"><b>Department of ISE &amp; CSE (AI&amp;ML)</b></p> <p style="text-align: center;">&amp;</p>  <p style="text-align: center;"><b>Cell for IPR Promotion and Management</b> (Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Govt. of INDIA)</p>
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**About FDP**

- The primary objective is to give the students an opportunity to apply the concepts they learned to their own research problems and plan their respective research strategies to avoid “rediscovering the wheel” and at the same time initiate the protection of the Intellectual Property created during their research to aid in speedy transfer to application centres / industries for commercialization.



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Department of Computer Science & Engineering

- The objective is to create IPR literates by exposing students to operational concepts in IPR.
- A common set of objectives of IPR Cell is to make the students aware of the relevant community-level intellectual property such as Geographical Indications that can be used for socio-economic development in communities.

Certificate:



SUBMITTED BY: Dr.Rekha B Venkatapur

*Dr. Rekha B Venkatapur*  
SIGNATURE OF FACULTY

*Dr. Rekha B Venkatapur*  
HOD  
Head of the Department  
Dept. of Computer Science & Engg  
K.S. Institute of Technology  
Bengaluru - 560 109

*Dr. Bhimasen Soragaon*  
PRINCIPAL  
PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.



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Department of Computer Science & Engineering

# FDP REPORT ON RECENT ADVANCEMENT IN DATA INTELLIGENCE AND ITS APPLICATIONS

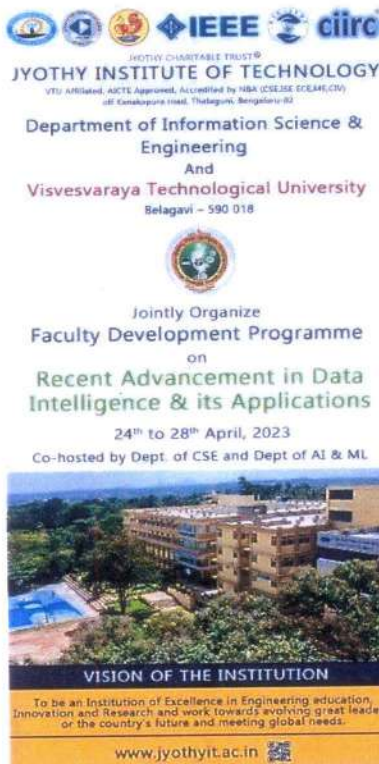
Venue: JIT




Date: 24-4-2023 to 28-4-2023

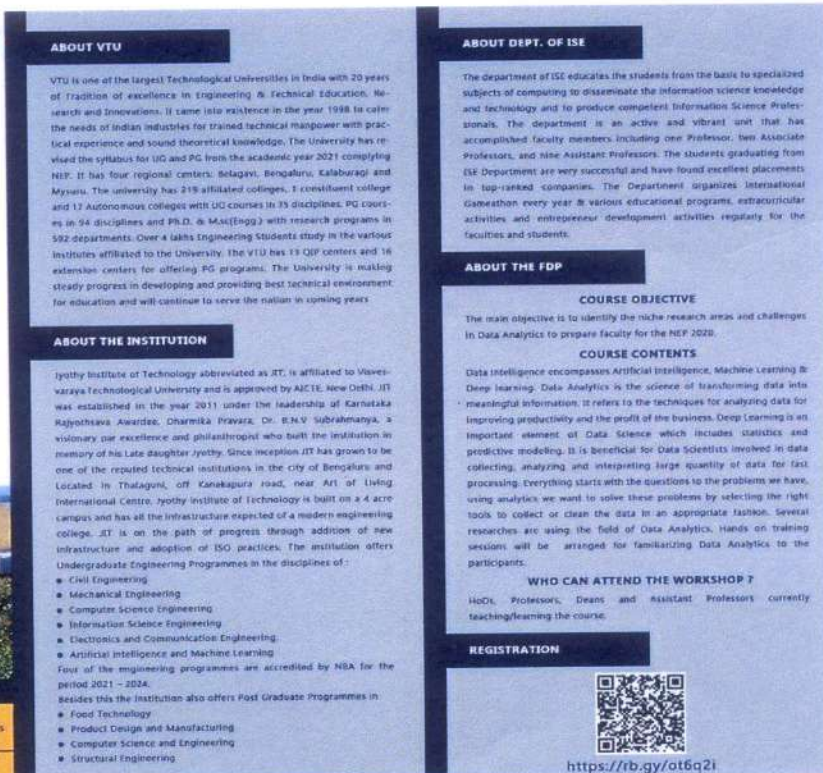
Mr. Abhilash L Bhat & Mrs. Swapna Subhash Banasode, Assistant Professor, Department of CSE, KSIT, I attended the 5 days FDP organized by the Department of Information Science & Engineering, in association with Visvesvaraya Technological University (VTU), supported by IEEE Bangalore chapter, is organising five day Faculty Development Program on "RECENT ADVANCEMENT IN DATA INTELLIGENCE AND ITS APPLICATIONS" to foster the research and development activities of faculty in Data Science and Artificial Intelligence domains \*from 24th April 2023-28th April 2023\* at Jyothy Institute of Technology, Thataguni, Bangalore -82

The Programme is co-hosted by the Department of Computer Science and Engineering and the Department of Artificial Intelligence & Machine Learning, JIT.

## Brochure:



  
 JYOTHY CHARITABLE TRUST®  
**JYOTHY INSTITUTE OF TECHNOLOGY**  
 VTU Affiliated, AICTE Approved, Accredited by NBA (CSE/ISE/CE/ME/EN)  
 Off Kanakapura road, Thataguni, Bangalore-82  
 Department of Information Science & Engineering  
 And  
 Visvesvaraya Technological University  
 Belagavi - 590 018  
  
 Jointly Organize  
 Faculty Development Programme  
 on  
**Recent Advancement in Data Intelligence & its Applications**  
 24<sup>th</sup> to 28<sup>th</sup> April, 2023  
 Co-hosted by Dept. of CSE and Dept of AI & ML  
  
**VISION OF THE INSTITUTION**  
 To be an Institution of Excellence in Engineering education, Innovation and Research and work towards evolving great leaders or the country's future and meeting global needs.  
[www.jyothyit.ac.in](http://www.jyothyit.ac.in)



**ABOUT VTU**  
 VTU is one of the largest Technological Universities in India with 20 years of Tradition of excellence in engineering & Technical Education, Research and Innovations. It came into existence in the year 1998 in order to meet the needs of Indian industries for trained technical manpower with practical experience and sound theoretical knowledge. The University has revised the syllabus for UG and PG from the academic year 2021 complying NIP. It has four regional centers: Belagavi, Bengaluru, Kalaburagi and Mysuru. The university has 215 affiliated colleges, 1 constituent college and 12 Autonomous Colleges with UG courses in 33 disciplines, PG courses in 94 disciplines and Ph.D. & M.Tech courses with research programs in 592 departments. Over 4 lakhs Engineering Students study in the various Institutes affiliated to the University. The VTU has 13 QIP centers and 16 extension centers for offering PG programs. The University is making steady progress in developing and providing best technical environment for education and will continue to serve the nation in coming years.

**ABOUT THE INSTITUTION**  
 Jyothy Institute of Technology abbreviated as JIT, is affiliated to Visvesvaraya Technological University and is approved by AICTE, New Delhi. JIT was established in the year 2011 under the leadership of Karnataka Rajyotsava Awarded, Dharmika Pravar, Dr. B.N.V. Subrahmany, a visionary our excellence and philanthropist who built the institution in memory of his late daughter Jyothy. Since inception JIT has grown to be one of the reputed technical institutions in the city of Bengaluru and Located in Thataguni, off Kanakapura road, near Art of Living International Centre, Jyothy Institute of Technology is built on a 4 acre campus and has all the Infrastructure expected of a modern engineering college. JIT is on the path of progress through addition of new infrastructure and adoption of ISO practices. The institution offers Undergraduate Engineering Programmes in the disciplines of:
 

- Civil Engineering
- Mechanical Engineering
- Computer Science Engineering
- Information Science Engineering
- Electronics and Communication Engineering
- Artificial Intelligence and Machine Learning

 Four of the engineering programmes are accredited by NBA for the period 2021 - 2024. Besides this the institution also offers Post Graduate Programmes in:
 


- Food Technology
- Product Design and Manufacturing
- Computer Science and Engineering
- Structural Engineering.

**ABOUT DEPT. OF ISE**  
 The department of ISE educates the students from the basic to specialized subjects of computing to disseminate the information science knowledge and technology and to produce competent Information Science Professionals. The department is an active and vibrant unit that has accomplished faculty members including one Professor, two Associate Professors, and nine Assistant Professors. The students graduating from ISE Department are very successful and have found excellent placements in top-rated companies. The Department organizes International Games every year & various educational programs, extracurricular activities and entrepreneur development activities regularly for the faculties and students.

**ABOUT THE FDP**  
**COURSE OBJECTIVE**  
 The main objective is to identify the niche research areas and challenges in Data Analytics to prepare faculty for the NEP 2020.

**COURSE CONTENTS**  
 Data intelligence encompasses Artificial Intelligence, Machine Learning & Deep learning. Data Analytics is the science of transforming data into meaningful information; it refers to the techniques for analyzing data for improving productivity and the profit of the business. Deep Learning is an important element of Data Science which includes statistics and predictive modeling. It is beneficial for Data Scientists involved in data collecting, analyzing and interpreting large quantity of data for fast processing. Everything starts with the questions to the problems we have, using analytics we want to solve these problems by selecting the right tools to collect or clean the data in an appropriate fashion. Several researches are using the field of Data Analytics. Hands on training sessions will be arranged for familiarizing Data Analytics to the participants.

**WHO CAN ATTEND THE WORKSHOP ?**  
 HoDs, Professors, Deans and Assistant Professors currently teaching/learning the course.

**REGISTRATION**  
  
<https://fb.gy/ot6q2i>



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Department of Computer Science & Engineering

### About FDP

The primary objective of this Five day Faculty Development Program (FDP) on **RECENT ADVANCEMENT IN DATA INTELLIGENCE AND ITS APPLICATIONS** was to enrich faculty members of Computer Science stream with preliminaries of artificial intelligence and its modern applications in machine learning and deep learning. The FDP was divided into several modules falling under the umbrella of Artificial Intelligence including Machine Learning, Deep Learning, Data Science, Natural Language Processing and Digital Image Processing. The objective was to address modern trends in the field of Artificial Intelligence with real time problem solving. This FDP focused on hands-on implementation of various algorithms to deliver practical skill to participants.

### Certificate:





Kammavari Sangham (R)-1952

K.S.INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering



SUBMITTED BY: Mr. Abhilash L Bhat

SIGNATURE OF FACULTY

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BENGALURU - 560 109.

HOD

Head of the Department  
Dept. of Computer Science & Engg  
K.S. Institute of Technology  
Bengaluru - 560 109





Kammavari Sangham (R)-1952

K.S.INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

# FDP REPORT ON RECENT ADVANCEMENT IN DATA INTELLIGENCE AND ITS APPLICATIONS

Venue: JIT

Date: 24-4-2023 to 28-4-2023

I, **Mr. Sanjoy Das**, Assistant Professor, Department of CSE, KSIT, I attended the 5 days FDP organized by the Department of Information Science & Engineering, in association with Visvesvaraya Technological University (VTU), supported by IEEE Bangalore chapter, is organising five day Faculty Development Program on **"RECENT ADVANCEMENT IN DATA INTELLIGENCE AND ITS APPLICATIONS"** to foster the research and development activities of faculty in Data Science and Artificial Intelligence domains **\*from 24th April 2023-28th April 2023\*** at Jyothy Institute of Technology, Thataguni, Bangalore -82. The Programme is co-hosted by the Department of Computer Science and Engineering and the Department of Artificial Intelligence & Machine Learning, JIT.



**JYOTHY INSTITUTE OF TECHNOLOGY**  
VTU Affiliated, AICTE Approved, Accredited by NBA (CSE,ISE,EC&ME,CIN)  
off Kanakapura road, Thataguni, Bengaluru-82

Department of Information Science & Engineering  
And  
Visvesvaraya Technological University  
Belagavi - 590 018



Jointly Organize  
Faculty Development Programme

on  
**Recent Advancement in Data Intelligence & its Applications**

24<sup>th</sup> to 28<sup>th</sup> April, 2023

Co-hosted by Dept. of CSE and Dept of AI & ML



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#### ABOUT THE FDP

##### COURSE OBJECTIVE

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HODs, Professors, Deans and Assistant Professors currently teaching/learning the course.

#### REGISTRATION



<https://fb.gy/ot6q2i>



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K.S.INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

About FDP

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**Certificate:**



SUBMITTED BY: Mr. Sanjoy Das

*Sanjoy Das*  
SIGNATURE OF FACULTY

*Principals*  
PRINCIPAL

PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.

*[Signature]*  
HOD

Head of the Department  
Dept. of Computer Science & Engg  
K.S. Institute of Technology  
Bengaluru - 560 109



**Kammavari Sangham(R)-1952**  
**K.S.INSTITUTE OF TECHNOLOGY**  
 Department of Computer Science & Engineering  
**FDP REPORT ON**

**INTELLECTUAL PROPERTY RIGHTS (IPR)-PATENTS AND  
 TRADEMARKS**

**Venue: DSATM**

**Date: 13-2-2023 to 17-2-2023**

I **Mr. Kushal Kumar B N** Assistant Professor, Department of CSE, KSIT attended Five Days Faculty Development Programme on —Intellectual Property Rights, Patents and Trademarks” in association with Cell for IPR Promotion and Management (CIPAM), Department for promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India, organized by Department of Computer Science and Engineering, DSATM from 13th February – 17th February 2023

**Brochure:**

**DAYANANDA SAGAR ACADEMY OF TECHNOLOGY & MANAGEMENT**  
 Opp. Act of Living, Udipiapeta, Kamakapur road, Bengaluru-082  
 (Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi)  
 Accredited by NAAC with A++

**Course Content:**

- Overview on Intellectual Property Rights.
- When to go for Patent and when to go for Research Paper (Importance of IP for academic institution).
- IP Filing processes in India (Copyright, trademarks, Patents and Designs)
- Patent search and emerging issues in patenting.
- Patent Drafting Procedures
- Overview of Geographical Indication and its registration process.
- Introduction to Copyrights including registration.
- Digital Piracy and copyright protection.
- Introduction to Trademarks and its Registration
- Protection of Trademark Rights in India and International Regime.
- Trademark Assignment and Licensing.
- Industrial Design and its registration process.
- Protection of Plant Varieties and Farmers Rights Act
- Intellectual Property Entrepreneurship

**Course Objectives:**  
 Introducing and promoting IP education in Institutions of higher learning universities, for which DIPP-IPR Chairs may be appointed in eligible institutions selected under the Scheme and Creation of an IPR knowledge database by compiling global best practices on all IPR matters.

**ONE WEEK FACULTY DEVELOPMENT PROGRAMME**  
 On  
 Intellectual Property Rights (IPR), Patent & Trademarks  
 13<sup>th</sup> to 17<sup>th</sup> February 2023

**Organized by**  
 Department of Computer Science and Engineering  
 Accredited NBA A grade 2021, New Delhi

**In association with**  
 Cell for IPR Promotion and Management  
 Department for Promotion of Industry and Internal Trade (DPIIT),  
 Ministry of Commerce and Industry, Govt. of INDIA

**About CIPAM**  
 A professional body under the support of Department for Promotion of Industry and Internal Trade (DPIIT) which ensures focused action on issues related to IPRs and addresses the seven identified objectives of the policy. CIPAM assists in simplifying and streamlining of IP processes, apart from undertaking steps for furthering IPR awareness, commercialization and enforcement.

**Speakers:**  
 Sri Dayananda Sagar, Founder, MGVP Trust  
 Dr. D Hemachandra Sagar, Chairman, DSI  
 Dr. D Premachandra Sagar, VC & CEO, DSI  
 Sri. Galurwamy, Secretary, DSI



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Department of Computer Science & Engineering

About FDP:

### Objectives of the FDP:

- Introducing and promoting IP education in Institutions of higher learning/ universities, for which DIPP-IPR Chairs may be appointed in eligible institutions selected under the Scheme and Creation of an IPR knowledge database by compiling global best practices on all IPR matters.
- Create awareness among faculty members about Intellectual Property Rights, Copyrights, Trademarks, when to go for patents, patent search, patent drafting

### Details about the event:

Faculty Development Programme on “Intellectual Property Rights (IPR)-Patents and Trademarks” in association with Cell for IPR Promotion and Management (CIPAM), Department for promotion of Industry an Internal Trade (DPIIT), Ministry of Commerce and Industry, Government of India. 13<sup>th</sup> Feb to 17<sup>th</sup> Feb 2023.

### Resource Persons:

Content of Delivery	Resource Person
Chief Guest & Key Note Address by	Ms. Ginni Sabhrwal, Deputy Manager, CIPAM
Overview on Intellectual Property Rights	Mr. J.L. Anil Kumar, Senior Consultant, Lexorbis, Bangalore
When to go for Patent and when to go for Research Paper (Importance of IP for academic institution)	Ms. Moumita Gorai, Assistant Manager, CIPAM
IP Filing processes in India (copyright, trademarks, patents and designs)	Mr. Shravan Kumar Yadav, Associate, RVR Associates, Hyderabad
Patent Search and emerging issues in patenting	Dr. Manish Badani, Consultant, Lexorbis, Bangalore
Patent Drafting Procedures	Mr. Jnana Teja, Research Assistant, NLSU, Bangalore
Overview of Geographical Indication and its registration process	Mr. Jnana Teja, Research Assistant, NLSU, Bangalore
Introduction to Copyrights including registration	Ms. Kajol Andley, Assistant Manager, CIPAM
Copyright licensing and Infringement	Mr. Rishabh Gupta, Advocate, United and United
Digital Piracy and copyright protection	Mr. Waseem Ahmed, Managing Associate, INTTL Advocare
Introduction to Trademarks and its Registration	Mr. Prateek Shrivastava, IP Attorney, PNA & Technology Attorneys, Gwalior
Protection of Trademark Rights in India and International Regime	Mr. Prateek Shrivastava, IP Attorney, PNA & Technology Attorneys, Gwalior



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**K.S.INSTITUTE OF TECHNOLOGY**  
**Department of Computer Science & Engineering**  
**FDP REPORT**

**ON**

**NATIONAL EDUCATION POLICY FOR SKILL INDIA AND DATA ANALYTICS  
AND CLOUD COMPUTING”**

**Venue: City Engineering College**

**Date: 10-4-2023 to 15-4-2023**

I, **Mr. Kumar K** Assistant Professor, Department of CSE, KSIT attended Five Days Workshop on “National Education Policy for Skill India and Data Analytics and Cloud Computing” organized by City Engineering College in Collaboration with Institution of Engineers (India) & Edunet Foundation & EYGDS(London) from 10th April – 15th April 2023.

**Brochure:**



**About FDP:**

The National Education Policy (NEP) plays a pivotal role in shaping India's educational landscape, particularly in the context of Skill India initiatives aimed at enhancing employability and fostering economic growth. In recent years, there has been a growing emphasis on emerging technologies such as Data Analytics and Cloud Computing, which have the potential to revolutionize various industries. This report delves into the integration of these technologies within the framework of the NEP, outlining strategies to promote skill development in these domains.

The integration of Data Analytics and Cloud Computing within the framework of the National Education Policy presents a significant opportunity to equip India's workforce with relevant skills for the digital era. By focusing on curriculum enhancement, skill development programs, research and innovation, and industry-academia collaboration, India can position itself as a global hub for



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Department of Computer Science & Engineering

talent in these critical domains. The concerted efforts of policymakers, educational institutions, industry stakeholders, and the government are essential to realizing this vision and driving sustainable economic growth through skill development

Certificate:



SUBMITTED BY: Mr. Kumar K

*Kumar K*  
SIGNATURE OF FACULTY

*Y.S. Kumar Swamy*  
HOD

Head of the Department  
Dept. of Computer Science & Engg  
K.S. Institute of Technology  
Bengaluru - 560 100

*Thippeswamy H. N.*  
PRINCIPAL

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**FDP REPORT**  
ON  
**ENTREPRENEURSHIP DEVELOPMENT**

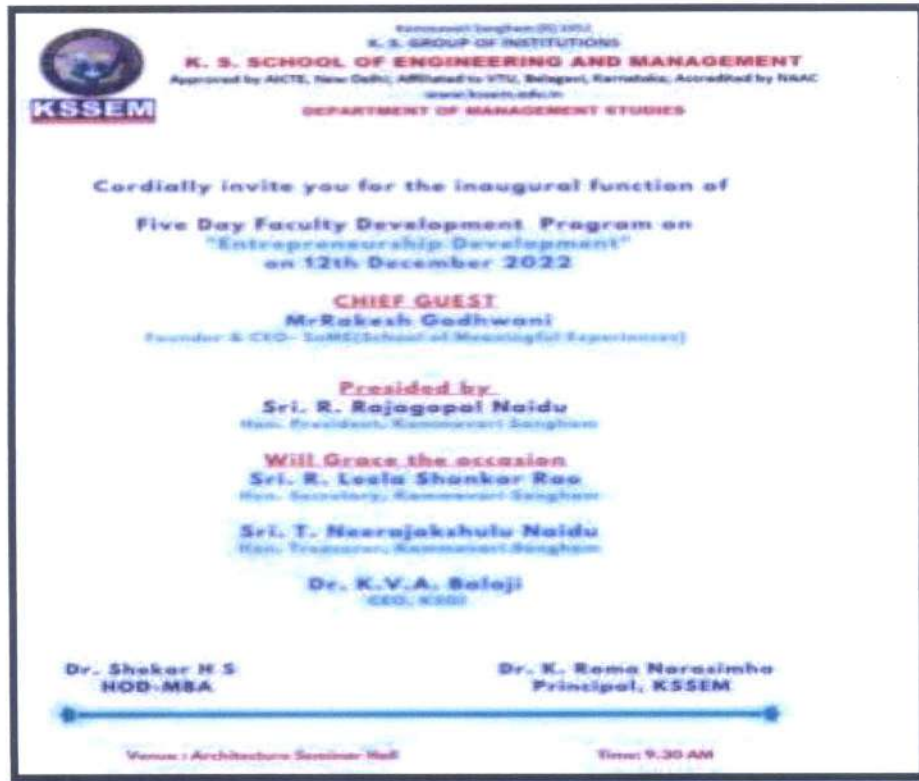
**Venue: KSSEM**

**Date: 12th - 16th December, 2022**

I, Mr. Krishna Gudi, serve as an Assistant Professor in the Department of Computer Science and Engineering at KSIT. I had the privilege of participating in a comprehensive Five-Day Faculty Development Program focused on 'Entrepreneurship Development'. This enriching program took place from December 12th to 16th, 2022, and was meticulously organized by the Department of Management Studies at the K S School of Engineering and Management.

**Brochure:**

The brochure is a dark blue poster with white and yellow text. At the top left is the KSSEM logo. The text reads: 'Kammavari sangham (R) 1952', 'K. S. GROUP OF INSTITUTIONS', 'K. S. SCHOOL OF ENGINEERING AND MANAGEMENT', 'Approved by AICTE, New Delhi; Affiliated to VTU, Belagavi, Karnataka; Accredited by NAAC', and 'www.kssem.edu.in'. Below this, it says 'DEPARTMENT OF MANAGEMENT STUDIES Presents Five Day Faculty Development Program on'. In the center is an illustration of a man in a suit with multiple arms holding a calculator, a target, and a document. At the bottom, it says 'Entrepreneurship Development', '12<sup>th</sup> to 16<sup>th</sup> December, 2022', 'Venue', and 'Architecture Seminar Hall'.



### About FDP:

To introduce participants to the fundamentals of Entrepreneurship To train and develop professionals in the area of entrepreneurship, innovation and incubation

Outcomes of the FDP: The FDP facilitated the participants to understand the concepts of entrepreneurship and its varied dimensions FDP enabled the promotion of the scope of entrepreneurship among faculty and the students about entrepreneurial careers. In the 5 days FDP, given presentation on 'Entrepreneurship in the Present Scenario'. Based on resource person (Mr Venugopal Gupta has worked at Hindustan Aeronautics Ltd as General Manager – Joint Ventures and Out Sourcing at Corporate office. He joined HAL in 1982 at Nasik Division) experience and knowledge, sir had shared how fast the current scenario is growing and changing its pattern. Environment becoming more creative day by day and every creativity becomes a new entrepreneurship in the market. At present he is engaged in sharing his experiences with Young people who are on their way to corporate ladder and shaping businesses to new levels. This Five days Faculty Development on Entrepreneurship Development for creating Entrepreneurs for new generation students was hosted by Prof. Roopa Balavenu. Initiated the Program through Invocation song by Prof. Rupa Das Chatterjee, FDP Summary by Prof. Vidyashree V, Welcome speech by Dr. Shekar H S, HOD-MBA, and



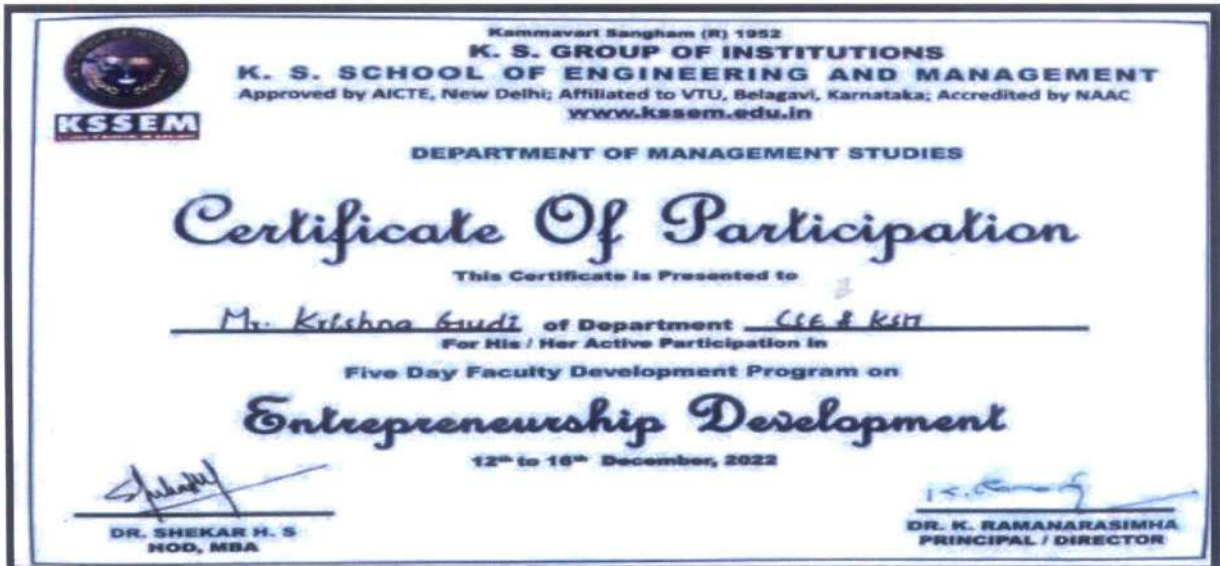


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K.S.INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

Introduction of Chief Guest Dr. S Subramanya Swamy. The Chief Guest addressed the students on the importance of Entrepreneurs to our country. Later, the felicitation to chief guest by Principal & CEO. CEO and Principal addressed the participants in the Program and concluded through Vote of thanks by Prof. Sreedhar.

Certificate:



SUBMITTED BY: Mr. Krishna Gudi

SIGNATURE OF FACULTY

HOD

Head of the Department  
Dept. of Computer Science & Engg  
K.S. Institute of Technology  
Bengaluru - 560 109

PRINCIPAL

PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.



**Kammavari Sangham (R)-1952**  
**K.S.INSTITUTE OF TECHNOLOGY**  
**Department of Computer Science & Engineering**  
**FDP REPORT**  
**ON**  
**IMPORTANCE OF DATA SCIENCE IN MACHINE LEARNING AND ITS**  
**APPLICATIONS**

**Venue: RVITM**

**Date: 6-2-2023 to 10-2-2023**

Mrs. Kavya M S, Mrs. Supreetha Ganesh & Mrs. Beena K, Assistant Professor, Department of CSE .KSIT, attended Five Days Faculty Development Programme on —Importance of Data Science in Machine Learning and its Applications” organized by Department of Computer Science and Engineering and Information Science and Engineering, R V Institute of Technology and Management from 6th February - 10th February 2023.

The poster is for a Five Day Online Faculty Development Programme. It lists the following details:

- Organized by:** Department of Computer Science and Engineering & Information Science and Engineering, RV Institute of Technology and Management.
- Chief Patrons:** Dr. M. P. Shyam, Dr. (h.c) A.V.S. Murthy, Sri. D.P. Nagaraj, Sri. K.G. Subbarama Setty.
- Patron:** Dr. Jayapal R.
- Convener:** Dr. Malini M. Patil, Dr. Latha C A.
- Programme Coordinators:** Dr. Surbhi Agrawal, Dr. Niharika P. Kumar.
- Organizing Committee:** Prof. V R Selvidhya, Prof. Deepak D. J, Ms. Chaltra H R, Mr. Abhishek V.
- Resource Persons:** Dr. Vivek Chaudhary, Mr. Abhishek Joshi, Mr. Deepak Nagar, Dr. Snehasishu Saha, Dr. Nitesh Nagaraj, Dr. Malini M. Patil, Mr. Sama Dhavala, Dr. Gowri Srinivasa, Dr. A. Srinivas, Mr. Anmol Agrawal.
- Registration Fee:** Academicians and Students: Rs 250/-, Industry delegates: Rs 500/-. E-Certificates will be issued to those participants who attend all the sessions.
- Dates:** 6th Feb 2023 to 10th Feb 2023.

**About FDP**

This FDP has been proposed to have deeper insights about how much understanding of data , it’s statistics , it’s interpretation is important before we use ML techniques on them. We had eminent faculties from various Institutes across India. We had a182 participants who attended this FDP from Institutes like VTU-Belagavi, SJCE-Mysore, Acharya Institute-Bengaluru, KSIT, etc. The speakers of all the sessions were welcomed and so were the participants. The speakers were from premier Institutes like BITS, GOA, National Institute of Advanced Studies,



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K.S.INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

Bangalore, RNSIT Bangalore, RVITM, Bangalore. PES University Bangalore and Industry experts from AlmaBetter Bengaluru, WadhvaniAi, Symphony RetailAi, Siemens Technology. They all have vast and deep knowledge in the area of data science and machine learning in their working domains and hence will introduce. The FDP concluded with a Valedictory address and feedback was taken from participants for each session as well as overall feedback on the FDP was taken. E-certificates were issued on completion of Quiz

Certificates:





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K.S.INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

**RV INSTITUTE OF TECHNOLOGY AND MANAGEMENT®**  
 Chaitanya Layout, 8th Phase, JP Nagar, Bangalore, Karnataka - 560076  
 Recognized by ANTE, New Delhi | Affiliated to VTU, Belagavi

**CERTIFICATE  
 of Participation**

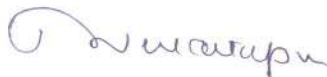
**Dr./Prof. SUPREETHA GANESH**  
 of KSIT

has participated in 5-Day Online Faculty Development Program on **"IMPORTANCE OF DATA SCIENCE IN MACHINE LEARNING AND ITS APPLICATIONS"** organized by the Department of Computer Science and Engineering & Department of Information Science and Engineering from 6th - 10th Feb 2023 at RV Institute of Technology and Management, Bengaluru.

 Dr. Malini M Patil HoD, CSE RVITM, Bengaluru	 Dr. Latha CA HoD, ISE RVITM, Bengaluru	 Dr. Jayapal R Principal RVITM, Bengaluru
---	---	--

SUBMITTED BY: Mrs. Kavya M S

SIGNATURE OF FACULTY

  
HOD

Head of the Department  
Dept. of Computer Science & Engg  
K.S. Institute of Technology  
Bengaluru - 560 109

  
PRINCIPAL

PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 108.



# K. S. INSTITUTE OF TECHNOLOGY

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-560109

DEPARTMENT OF COMPUTER SCIENCE AND  
ENGINEERING



## REPORT ON

### 6 Day Faculty Development Program on **R PROGRAMMING AND ITS APPLICATIONS**



#### Organizing Chair

Dr. Rekha B Venkatapur  
Professor & Head, Department of CS&E  
KSIT BANGALORE

#### Conveners

Dr. H S Prasantha,  
Professor, Department of CSE  
KSIT BANGALORE

Mr. Kushal Kumar B N  
Assistant Professor, Department of CSE  
KSIT BANGALORE

## CONTENTS

<b>Sl</b>	<b>Particulars</b>	<b>Page no</b>
1	FDP Brochure	3
2	FDP Inauguration Brochure	4
3	Program schedule	5
4	Department committees	6
5	Participants list	7
6	Speaker details	8-13
7	Session-wise details	14-38
8	Feedback Questionnaire	39-40
9	Assessment questions	41-44

# FDP Brochure

## CHIEF PATRONS

**Sri R. Rajagopal Naidu**  
President, Kammavari Sangham  
**Sri R. Leela Shankar Rao**  
Hon. Secretary, Kammavari Sangham  
**Sri T.Neerajakshulu Naidu**  
Treasurer, Kammavari Sangham

## PATRONS

**Dr. K.V.A. Balaji**  
CEO, KSGI  
**Dr. Dilip Kumar K**  
Principal / Director, KSIT

## ORGANISING CHAIR

**Dr. Rekha B Venkatapur**  
Professor & Head of the Department  
Computer Science & Engineering, KSIT

## CONVENERS

**Dr. Prashantha H S**  
Professor, Department of Computer Science & Engineering,  
KSIT

**Mr. Kushal Kumar B N**  
Asst. Professor, Department of Computer Science & Engineering,  
KSIT

## ORGANISING COMMITTEE

**Mr. Harshavardhan J R**  
Assoc. Professor, CSE, KSIT  
**Dr. Vijayalaxmi Mekali**  
Assoc. Professor, CSE, KSIT  
**Mr. Sanjoy Das**  
Assistant Professor, CSE, KSIT  
**Mr. Roopesh Kumar B N**  
Assistant Professor, CSE, KSIT  
**Mr. Kumar K**  
Assistant Professor, CSE, KSIT  
**Mr. Raghavendrachar S**  
Assistant Professor, CSE, KSIT  
**Mr. Krishna Gudi**  
Assistant Professor, CSE, KSIT  
**Mr. Prashanth H S**  
Assistant Professor, CSE, KSIT  
**Mrs. Beena K**  
Assistant Professor, CSE, KSIT  
**Mr. Manoj Kumar S**  
Assistant Professor, CSE, KSIT

**Mrs. Pallavi K N**  
Assistant Professor, CSE, KSIT  
**Mrs. Rashmi H**  
Assistant Professor, CSE, KSIT  
**Mrs. Kavya M S**  
Assistant Professor, CSE, KSIT  
**Mr. T Somasekhar**  
Assistant Professor, CSE, KSIT  
**Mrs. Supreetha Ganesh**  
Assistant Professor, CSE, KSIT  
**Mrs. Pallavi R**  
Assistant Professor, CSE, KSIT  
**Mr. Laxmikanth**  
Assistant Professor, CSE, KSIT  
**Ms. Namyapriya D**  
Assistant Professor, CSE, KSIT  
**Mrs. Ramanjinamma G**  
Assistant Professor, CSE, KSIT

## TOPICS TO BE COVERED IN FDP

- Introduction to data science & Hands-on session
- Mathematical Preliminaries, Data science and Big data & Hands-on session
- Data Science using R programming & Hands-on session
- Machine learning using R, Machine learning using R examples & Hands-on session
- Image Processing using R, Image Processing using R examples
- Mini Project



Six Days Faculty Development program  
on  
**R PROGRAMMING & IT'S APPLICATIONS**

27<sup>th</sup> March to 1<sup>st</sup> April 2023

Venue  
K S INSTITUTE OF TECHNOLOGY, Bengaluru



Organized by  
**Department of  
Computer Science & Engineering**



## FDP Inauguration Brochure



Kammavari Sangham(R)1952  
**K. S. INSTITUTE OF TECHNOLOGY**  
Approved by AICTE, New Delhi, A EROD to VIT, Belgaol, Karnataka, Accredited by NACC ANBA (Dept. of OI, BS, M R)  
#14, Taghuvanahalli, Kankopura Main road, Bangalore-560109  
Tel : 28435723 Email : Email : principal@ksit.edu.in Web : www.ksit.edu.in

The Management, CEO, Principal & Staff  
Cordially invite you for the Inaugural Function of  
**6 Days Faculty Development Program**  
[27<sup>th</sup> March 2023 to 1<sup>st</sup> April 2023]

**Organized by Department of CSE & ECE**

**on 27<sup>th</sup> March at 9.30 am in Conference Hall, KSIT**

Chief Guest

**Dr. C. P. Ravi Kumar**

Director of Talent Development,  
Texas Instruments, India

Presided By

**Sri. R. Rajagopal Naidu**

President, Kammavari Sangham

Will Grace the Occasion

**Sri. R. Leela Shankar Rao**

Hon. Secretary, Kammavari Sangham

**Sri. T. Neerajakshulu Naidu**

Treasurer, Kammavari Sangham

**Dr. K. V. A. Balaji**

CEO, KSGI

**Dr. Dilip Kumar K**

Principal & Director

**Dr. P. N. Sudha**

Prof & Head, ECE Department

**Dr. Rekha B Venkatapur**

Prof & Head, CSE Department





# K. S. INSTITUTE OF TECHNOLOGY

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-560109

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

6 Day Faculty Development program on R PROGRAMMING AND ITS

## APPLICATIONS PROGRAM SCHEDULE

DATE	SESSION 1 (9 AM -10.30AM)	10.30- 11 AM	SESSION 2 (11 AM – 12.30 PM)	12.30 PM – 1.30 PM	SESSION 3 (1.30 PM – 3.30PM)
28/3/2023	<b>REGISTRATION &amp; INAGURATION</b>		<b>KEYNOTE ADDRESS</b> Dr. C. P. Ravi Kumar Director of Talent Development, Texas Instruments, India		<b>Hands-On Session 1</b> Dr. H S Prasantha, Professor KSIT <b>Introduction, Numeric, Arithmetic, Assignment</b>
28/3/2023	Dr. Rekha Padke, Associate Professor, NMIT Bangalore <b>Time series analysis using R</b>	TEA BREA K	Dr. Rekha Padke, Associate Professor, NMIT Bangalore <b>Forecasting using R</b>	LUNC H BREA K	<b>Hands-on session 2</b> Dr. H S Prasantha, Professor KSIT <b>Vectors, Matrices and Arrays</b>
29/3/2023	Dr. Gourish Goudar, Assistant Professor NMIT Bangalore <b>Statistical Modelling, Distribution Fitting and Plotting the graphs using R/R-studio</b>		Dr. Vijayakrishna, Senior Architect, Robert Bosch <b>Mathematical Preliminaries</b>		<b>Hand-on Session -3</b> Mr. Kushal Kumar B N, KSIT <b>Lists and data frames</b>
30/3/2023	Dheeraj .D, Assistant Professor GAT Bangalore <b>Machine learning/AI using R</b>		Dheeraj .D, Assistant Professor GAT Bangalore <b>Examples of Machine learning/AI using R</b>		<b>Hand-on Session -4</b> Mr. Kushal Kumar B N, KSIT <b>Functions</b>
31/3/2023	Dattaramu. B A, Director- Data Science, Noodles.AI <b>Use Cases and Landscape of Analytics Projects: An Industrial Perspective</b>		Dr. H S Prasantha, Professor KSIT <b>Image Processing using R</b>		<b>Hand-on Session-5</b> Mr. Kushal Kumar B N, KSIT <b>Pointers</b>
1/4/2023	Mr. Ravindranath, PhD scholar NIT Trichy <b>Biomedical signal processing using R</b>		Mr. Ravindranath, PhD scholar NIT Trichy <b>Examples on Biomedical signal processing</b>		Valedictory function



# K.S. INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

## R PROGRAMMING & It's APPLICATIONS

### Department Level Committee Coordinators

#### 1. Registrations Committee

**Faculty Coordinator:** Dr. VijayalaxmiMekali

**Faculty Member:**

Mr. Prashanth H S  
Mrs. Supreetha Ganesh  
Mr. Manoj Kumar S  
Mrs. Pallavi R  
Mr. Laxmikantha K  
Mrs. Divya R G  
Mrs. Geetha T  
Ms. Preethi R

#### 2. Stage Committee

**Faculty Coordinator:** Mrs. Beenak K

**Faculty Members:**

Mrs. Kavya M S  
Mrs. Pallavi K N  
Mrs.Rashmi H,  
Mrs. VimalaKumari V  
Mrs. KeerthanM N  
Mrs. Mounika G  
Mr. Babu G

#### 3. Hospitality Committee

**Faculty Coordinator:** Mr. Harshavardhan J R

**Faculty Members:**

Mr. Sanjoy Das,  
Mr. Roopesh Kumar B N  
Mr. Raghavendrachar S  
Mr. Somasekhar T  
Mr. Om Prakash S

Mr. Krishna Gudi (Transportation facility for Chief Guest and Resource persons if required)

#### 4. Lab in-charge During Hands on Session

1. Mr. Kumar K
2. Mrs. Namyapriya D
3. Mrs. Ramanjinamma G



# K. S. INSTITUTE OF TECHNOLOGY

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-560109

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

6 Day Faculty Development program on R PROGRAMMING AND ITS

## APPLICATIONS Registration details

Sl. No.	Name	Organization
1	Ms. Anitha M C	SVIT
2	Mrs. Rekha Murthy	SVIT
3	Mrs. Supriya R K	DSATM
4	Mrs. Swathi Darla	RVITM
5	Mrs. Padma Sree N	RVITM
6	Mrs. Prabhavathi K	RVITM
7	Mrs. Harshitha B K	DSATM
8	Ms. Roopa K Murthy	KSIT
9	Ms. Kiranashree B K	TJIT
10	Ms. Shilpa Sannamani	TJIT
11	Mrs. Apoorva Busad	DSATM
12	Mrs. Nandini D	JIT
13	Ms. Rakshatha S	JIT
14	Ms. Divya Sharma	NHCE
15	Ms. Sarala D V	DSCE
16	Mrs. K K Kavitha	KSIT
17	Ms. Sushma A	KSIT
18	Ms. Surekha Byakod	KSIT
19	Ms. Lakshmi K K	KSIT
20	Dr. M Nirmala	NHCE
21	Ms. Namyapriya Dayananda	KSIT
22	Mr. Sampath Kumar S	KSIT
23	Ms. Sheela S	GAT
24	Dr. Shalini S	GAT
25	Dr. Nandeeswar S B	APSCE
26	Dr. Vijayalaxmi Mekali	KSIT
27	Mrs. Rajashree M Byalal	APSCE
28	Mrs. Ramanjinamma G	KSIT
29	Mrs. Bhagyashree R	APSCE
30	Ms. Jyothi S	GAT
31	Mrs. Rashmi H	KSIT
32	Mrs. Ishani Mishra	NHCE
33	Mr.Somashekar	KSIT

## SPEAKER DETAILS



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE**  
Department of Computer Science and Engineering  
**Six Days Faculty Development on “R Programming and its Applications”**  
**(27<sup>th</sup> March 2023 to 1<sup>st</sup> April 2023)**

### PROFILE DETAILS

**Name:** Dr. A Vijayakrishna

**Designation:** Senior Architect

**Organization:** Bosch Global Software Technologies

**Phone:** 98441 66478

**Email:** a.vijayakrishna@in.bosch.com



### Short Biography:

- Currently working as Senior Architect Bosch Global Software Technologies in the area of Internet of Things (IoT), Cyber security, Cryptography
- Served as Professor in the department of Electronics & Communication Engineering from 2008-2022 handling courses related to communication and Signal Processing, Guiding PhD students, Guiding Projects (UG & PG), framing syllabus, served as Member – BOS, BOE DPAC committees, conducting coaching for Gate classes (for PES ECE students), mentoring Junior faculties, etc..
- Graduated from SJCE Mysore (E&CE) 1994-98, masters from Indian Institute of Science (IISC) 1999-2001 and PhD from Indian Institute of Science (IISC) 2002-2006
- Served as an expert member for handling session on Mathematical preliminaries, Signal Processing and Communication related topics at various organizations and Institutes
- Served as member for research committee, doctoral committee under VTU and PES university
- Published papers in Journals and conferences of repute
- Served as Reviewer for various Journals and conferences



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE**  
Department of Computer Science and Engineering  
**Six Days Faculty Development on “R Programming and its Applications”**  
(27<sup>th</sup> March 2023 to 1<sup>st</sup> April 2023)

**PROFILE DETAILS**

**Name:** B A Dattaram

**Designation:** Director for Data Science

**Organization:** Noodle.ai

**Phone:** 95919 82000

**Email:** badattaram2@gmail.com



**Short Biography:**

- B.A. Dattaram is a highly experienced analytics professional with 18 years of industry experience.
- He graduated in Instrumentation and Electronics from SIT, Tumkur, and completed his specialization in Machine Learning from IIM, Bangalore in 2011.
- Dattaram was a part of IBM's AI Expert labs and currently serves as the Director for Data Science at Noodle.ai. His extensive experience ranges from AI product development to Data Science leadership roles and includes contributions to various domains, including Manufacturing and Supply Chain.
- Dattaram's work has been recognized with several key awards, including the 'Outstanding Technical Achievement Award' from IBM and the 'AI Game changing (2018)' award presented by NASSCOM.
- He has also been granted three patents
- He is a guest speaker at IIM, Bangalore on Hidden Markov Models for executive courses.
- Dattaram's contributions to the field of analytics extend beyond his professional work, as he has authored several publications and is a frequent speaker at conferences on the topic.



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE**  
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**PROFILE DETAILS**

**Name:** Dr. Gourish Goudar

**Designation:** Assistant Professor

**Organization:** Nitte Meenakshi Inst of Technology

**Phone:** 77605 09192

**Email:** gourish.goudar@nmit.ac.in



**Short Biography:**

- Dr. Gourish Goudar has completed his ME and PhD in the area of Mobile and Wireless Networks from BITSPilani.
- He has worked as SDE at AMAZON development center, Bengaluru.
- He has a total of 2 years industry experience, 2.5 years in academics and 5 years as senior research fellow.
- He is the awardee of the prestigious UGC JRF and NET by MHRD, Govt. of India.
- He has won the PhD forum best paper award at IEEE International conference on Advanced Networks and Telecommunication Systems (ANTS), 2017.
- He has published research articles in highly reputed journals such as IEEE Transactions and IEEE CORE conferences.
- His current areas of research include Future Networks, Intelligent Transportation Systems, Machine Learning and Mathematical Modelling.
- He is currently working as Assistant Professor in Dept. of Artificial Intelligence and Data Science, NMIT, Bengaluru.



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE**  
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**Six Days Faculty Development on “R Programming and its Applications”**  
(27<sup>th</sup> March 2023 to 1<sup>st</sup> April 2023)

**PROFILE DETAILS**

**Name:** Dr. Rekha Padke

**Designation:** Associate Professor

**Organization:** Nitte Meenakshi Inst of Technology

**Phone:** 99017 33233

**Email:** rekhaphadke@gmail.com



**Short Biography:**

- Graduated as Electronics and Communication Engineer from JNNCE, Shimoga and Post-Graduation in Digital Communication and Networking from SJCIT, Chickaballapur in 2008.
- Awarded PhD for Developing Algorithms for Glucose Monitoring in a closed loop System from University of Mysore in 2021
- Currently Pursuing PG certified Course of 13 months in Computation Data Science from Indian Institute of Science.
- 20+ years of working experience in teaching handling various courses. Handled most of the basic courses for ECE students and Programming oriented courses for ECE, and other branches.
- Handled various Program or algorithm-based courses for ECE, and other branch students
- Guided about 20 undergraduate Projects , 4 PG projects related to cutting edge technologies
- Published around 15 papers. One of my PhD work is published in Sadhana along with Dr. Abhijit Bhograj, a renowned Diabetician in Bangalore.
- Framed syllabus and contents for ECE and Data science branches (Autonomous).
- Served and serving as BOS/BOE Member for NMIT and presented session for students helping them for placement related activities.
- Served and serving as Domain head in the area of Data science and Machine learning for Project related activities.



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE**  
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(27<sup>th</sup> March 2023 to 1<sup>st</sup> April 2023)

**PROFILE DETAILS**

**Name:** Mr. Ravindranath K

**Designation:** Research Scholar

**Organization:** NIT, Trichy

**Phone:** 97424 20155

**Email:** ravindranath321@gmail.com



**Short Biography:**

- 10+ years of experience in the Research and academic profession, spearheading diverse teams and people worked at NMIT and DBITBangalore
- Bachelor of Engineering from Vivekananda Institute of Technology, Master of Technology from RNS Institute of Technology Bangalore and Pursuing Ph.D. (2019-Till date), National Institute of Technology Tiruchirappalli (Final stage of completion)
- Projects Completed: 1) Novel classification algorithms were built to classify the Histopathological images 2) Novel automated algorithms were developed using the deep learning toolbox of MATLAB to classify skin cancer and brain tumordatasets.
- On Going projects: 1) developing Hybrid models by combining convolutional neural networks and long short-term memory to efficiently classify CT Lung images provided by Kangwon medical university and hospital, South Korea, and Chonbuk National University and Hospital, South Korea 2) Studies are being made to automatically diagnose MRI Breast Images from Kangwon medical university and hospital South Korea. 3) Segmentation of Mediastinal images from CT chest images from Kangwon medical university and hospital, South Korea. 4) Supported the University of Saskatchewan, Canada team for rib segmentation. 5) Hardware implementation of LiteHistoNet on Raspberry Pi for reducing the number of parameters used by neuralnetworks.
- Published research manuscripts in reputed science citation and Scopus-indexed journals
- Visited the University of Saskatchewan, Canada, under the Scheme for Promotion and Research Collaboration, India, funded by the Ministry of Human Resource & Development.
- Cleared UGC NET exam conducted by UGC, DEC – 2013, 2014, 2015





**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE**  
Department of Computer Science and Engineering  
**Six Days Faculty Development on “R Programming and its Applications”**  
(27<sup>th</sup> March 2023 to 1<sup>st</sup> April 2023)

**PROFILE DETAILS**

**Name:** Mr. Dheeraj . D

**Designation:** Assistant professor

**Organization:** GAT Bangalore

**Phone:** 9880166448

**Email:** dwarakanathdheeraj@gmail.com



**Short Biography:**

- Mr. Dheeraj D, currently works as an Assistant Professor in Dept.of ISE, Global Academy of Technology. He has about 15 years of experience in teaching including 4 years of research expertise in the field of bio-medical engineering and augmented reality.
- His research interests include data science, deep learning and optimization, hyper-parameter tuning, parallel processing, augmented reality and data mining and visualization.
- 40+ publications in peer journals and conferences. He has received many best paper awards in the past. He has 23 citations and h-index of 3 and i-10 index of 1.
- He has 2 Indian patents published in his name.
- He is a reviewer for ASTES and JENRS Journal in the field of computational intelligence.
- He has reviewed and contributed book chapters for the book entitled Introduction to Computing and Programming in Python with Pearson publishers
- He owns 3 student clubs at GAT for promoting open source technologies, competitive programming and interdisciplinary projects.
- He has guided and completed more than 40 projects under UG and PG level.
- He is a technical consultant at Infidata Technologies and Dhvajani Technologies till date.
- Served as a resource person in FDPs conducted at RVCE, SVCE, DSCE, SVIT, REVA
- He has also delivered talks on machine learning and deep learning in about 2 ATAL sponsored FDPs and chaired few sessions in national conferences as well.
- He is a recipient of various awards in sports and also recipient of academic excellence award too.
  - He is a Sun Certified Java Programmer in Java 1.4.
  - Infosys certified Python Programming trainer.
  - Wipro certified Full Stack Development trainer.
  - Also, he has many certifications under Coursera and Swayam.
- He also has served as a JURY at various state and national level hackathons and most importantly as a JURY for smart India hackathon 2020 software and 2021-hardware version. He also is a recognized mentor and jury at BiTesiXcellerator Project competition at the national level from 2018 onwards.
- Conducted many technical events, coding competitions, state and national level hackathons.
- Life member of professional bodies such as IAENG, ICFER, MISTE, ISTE and IACSIT.



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**(27<sup>th</sup> March 2023 to 1<sup>st</sup> April 2023)**

**PROFILE DETAILS**

**Name:** Dr. H S Prasantha

**Designation:** Professor

**Organization:** K.S. Institute of Technology Bangalore

**Phone:** 9902058362

**Email:** [drhsprashanth@gmail.com](mailto:drhsprashanth@gmail.com)



**Short Biography:**

- Currently serving as Professor CSE Department KSIT and previously served as Professor at NMIT, PESIT and EWIT (more than 21 years of experience)
- Graduated from ECE under BU, MTech from VTU and PhD from Anna university Chennai during 2012
- Extensive experience in executing Teaching/Training courses related to the Signal Processing and Machine Learning for Under-Graduate (UG) and Post-Graduate (PG) Programs (Handled most of the courses, framed syllabus and contents in the domain)
- Guiding Under-Graduate and Post-Graduate Projects related to Signal Processing and Machine learning (Guided more than 100 UG projects, more than 25 PG Projects)
- Guiding Research students for PhD in the area of Signal Processing and Machine Learning, Publishing papers in the area of Signal Processing and Machine Learning (Guided 2 students for PhD and guiding 3 students for PhD program under VTU)
- Published more than 80 papers in Reputed Journals and conferences with more than 450 citation and h index of 10, research gate citations of 500
- Served and serving as Reviewer for many reputed Journals and conferences including IEEE transactions, Jon WILEY, etc.
- Served and serving as Session chair for many conferences
- Served and serving as Editorial Board member for Various Journals
- Filed one patent
- Served and serving as Member BOS – NMIT, PESIT, CMR University
- Served and serving as Member BOE – NMIT, PESIT, Reva University, UVCE
- Served and serving as Academic council member for PESCE Mandya, CMR University Served and research council member at NMIT from 2014 to 2022
- Served as Member – Research Committee VTU and Reva University
- Served as Guest speaker for various Institutes and Organizations
- He is a member of professional bodies such as IEEE (Senior Member), IEEE – Signal Processing Society, IEEE – Commuter Society, IET, ISSE, Fellow-IETE, IAENG, IFRP, MISTE, etc.
- Served as Doctoral committee member for Research scholars under VTU, Reva University, Jain University

**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE**  
Department of Computer Science and Engineering  
**Six Days Faculty Development on “R Programming and its Applications”**  
**(27<sup>th</sup> March 2023 to 1<sup>st</sup> April 2023)**

**PROFILE DETAILS**

**Name:** Mr. Kushal Kumar B N

**Designation:** Asst. Professor

**Organization:** K.S. Institute of Technology Bangalore

**Phone:** 9900533883

**Email:** [kushalkumarbn@ksit.edu.in](mailto:kushalkumarbn@ksit.edu.in)



**Short Biography:**

- Currently serving as Asst.Professor CSE Department KSIT
- Graduated from ISE under VTU & M. Tech from VTU
- Secured 3rd rank for the Visvesvaraya Technological University in M. Tech
- Pursuing PhD in VTU
- GATE Computer Science Qualified with 92.8 percentile
- Mentored a Team from KSIT named Pacman Bytes has won the first place in Smart India Hackathon under the problem statement of Ministry of Civil Aviation.
- Delivered Guest lecture on Discrete Mathematical Structures at K S School of Engineering and Management
- NBA Department Coordinator
- Handled NBA (National Board of Accreditation) criteria 3
- Handled NAAC (National Assessment and Accreditation Council) criteria 2
- Result Analysis Coordinator
- Technical Seminar Coordinator
- Member of Academic Committee
- Member of Cultural Committee
- Member of VTU flying squad Team

## DAY – 1

### SESSION – 1 DETAIL

**TOPIC:** Registration and Inauguration of the FDP program

**SCHEDULE:** 9.30 AM to 11AM

### Brief details about the session

The FDP program was designed to address the contents of 4<sup>th</sup> semester syllabus along with research opportunities in various domain such as Image Processing, Biomedical Signal Processing, Data science, Machine Learning with hands-on demonstrations using R language. FDP also covered mathematical preliminaries required for faculty pursuing research or planning to pursue research in the related domain.

The FDP was inaugurated by the dignitaries such as Dr. C P Ravikumar - Director of Talent Development Texas Instruments India Sri. R. Rajagopal Naidu, - President K S Group of Institution, Sri. R. Leela Shankar Rao - Hon. Secretary K S Group of Institution, Sri. T. Neerajakshulu Naidu – Treasurer K S Group of Institution, Dr. K. V. A. Balaji - Chief Executive Officer K S Group of Institution, Dr. Dilipkumar K - Principal & Director, KSIT, Dr. Rekha B Venkatapur - Head Department of CS&E KSIT, Dr. Sudha P N – Head, Department of E&CE KSIT. The program was attended by Principal & Director KSSEM, Principal K S School of Architecture, Principal PU College, Heads of all the departments of KSIT and KSSEM, Faculties of KSIT (both teaching and Non-teaching), Participants from various Institutes across Bangalore.

The agenda of the Inaugural Session are as follows:

### Inaugural Function Agenda

<b>Invocation Song :</b>	Mr. Sanjeev and Ms. Bhumika
<b>Welcome Address:</b>	Dr. Dilip Kumar K
<b>Lighting the Lamp:</b>	Chief Guest and Dignitaries
<b>Introduction of Chief Guest:</b>	Dr. Rekha B. Venkatapur
<b>Address by Chief Guest:</b>	Dr. C.P Ravi Kumar
<b>Address by President:</b>	Sri. R. Rajagopal Naidu
<b>Address by Secretary:</b>	Sri R. Leela Shankar Rao
<b>Address by Treasurer:</b>	Sri. T. Neerajakshulu Naidu
<b>Address by CEO:</b>	Dr. K.V.A. Balaji
<b>Vote of Thanks:</b>	Dr. P.N Sudha

## Few Glimpse from the inaugural Session





**Registration snapshots**

**DAY 1: Session 2**

**Date: 27/03/2023**

**KEY NOTE ADDRESS**

**Keynote Speaker:** Dr. C P Ravikumar Director of Talent Development Texas Instruments India

**Topic:** Perspectives in Programming

**Schedule:** 11 AM to 12 PM

The keynote speaker introduces about the two programming languages such as PYTHON and R. The speaker explained the necessity of programming languages to improve the quality of learning and teaching.



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

**Day 1 Session 2**

Date: 27/03/2023 Time: 11 AM to 12 PM

KEY NOTE ADDRESS

BY

Dr. C. P. Ravi Kumar

Director of Talent Development,  
Texas Instruments, India

Perspectives in Programming

Dr. C. P. Ravi Kumar  
Director of Talent Development,  
Texas Instruments, India



**DAY 1: Session 2**

**Date: 27/03/2023**

**FDP Flow**

**Speaker:** Dr. H S Prashantha, Professor CS&E KSIT Bangalore

**Topic:** FDP Design flow

**Schedule:** 12 PM to 1 PM

The speaker introduces about R programming language and briefed about 6 days session details and contents of each session to be covered by different speakers.



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

**Day 1 Session 2**

Date: 27/03/2023 Time: 12 PM to 1 PM

FDP FLOW

BY

Dr. H S Prashantha

Professor, department of CSE  
K.S.Institute of Technology

FDP DAYWISE AND SESSIONWISE DETAILS ABOUT TOPIC AND  
SPEAKER



Dr. H S Prashantha  
Professor, department of CSE  
K.S.Institute of Technology



## DAY 1: Session 3

Date: 27/03/2023

Speaker: Dr. H S Prasantha, Professor CS&E KSIT Bangalore

Topic: Hands on session covering Module 1

Schedule: 1.30 PM to 3.30 PM



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

### Day 1 Session 3

Date: 27/03/2023

Time: 1.30 PM to 3.30 PM

HANDS-ON SESSION

BY

Dr. H S Prashantha  
Professor, department of CSE  
K.S.Institute of Technology

Module 1: Numeric, Arithmetic, Assignment, and Vectors: R for  
Basic Math, Arithmetic, Variables, Functions, Vectors, Expressions  
and assignments Logical expressions.

Hands-on Session – 1



Dr. H S Prashantha  
Professor, department of CSE  
K.S.Institute of Technology



## DAY 2: Session 1

Date: 28/03/2023

Speaker: Dr. Rekha Phadke, Associate Professor NMIT Bangalore

Topic: Introduction to Time series analysis and Forecasting using R Schedule: 9 AM to 10.30 AM



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

### Day 2 Session 1

Date: 28/03/2023

Time: 9 AM to 10.45 PM

BY

Dr. Rekha Phadke,  
Associate Professor  
NMIT Bangalore

Time series Analysis using R



Dr. Rekha Phadke,  
Associate Professor  
NMIT Bangalore





## DAY 2: Session 2

Date: 28/03/2023

Speaker: Dr. Rekha Phadke, Associate Professor NMIT Bangalore

Topic: Introduction to Time series analysis and Forecasting using R Schedule: 11 AM to 12.45 PM



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

Date: 28/03/2023 Day 2 Session 2 Time: 11 PM to 12.45 PM

BY  
Dr. Rekha Phadke,  
Associate Professor  
NMIT Bangalore

FORECASTING USING R



Dr. Rekha Phadke,  
Associate Professor  
NMIT Bangalore



## DAY 2: Session 3

Date: 28/03/2023

Speaker: Dr. H S Prashantha, Professor CS&E KSIT Bangalore

Topic: Hands on session covering Module 2

Schedule: 1.30 PM to 3.30 PM



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

Date: 28/03/2023 Day 2 Session 3 Time: 1.30 PM to 3.30 PM

HANDS-ON SESSION  
BY  
Dr. H S Prashantha  
Professor, department of CSE  
K.S.Institute of Technology

Module 2: Conditions and Looping: if statements, looping with for, looping with while, vector based programming.

Hands-on Session – 2



Dr. H S Prashantha  
Professor, department of CSE  
K.S.Institute of Technology



## DAY 3: Session 1

Date: 29/03/2023

Speaker: Dr. Gourish Goudar, Assistant Professor NMIT Bangalore Schedule: 9 AM to 10.30 AM

Topic: Statistical Modeling, Distribution and plotting the graphs using R/R-Studio



Date: 29/03/2023 Day 3 Session 1 Time: 9 AM to 10.45 PM

BY  
Dr. Gourish Goudar  
Assistant Professor  
NMIT Bangalore

Statistical Modeling, Distribution Fitting and Plotting  
the graphs using R/R-studio



Dr. Gourish Goudar  
Assistant Professor  
NMIT Bangalore



## DAY 3: Session 2

Date: 29/03/2023

Speaker: Dr. A Vijayakrishna, Senior Architect, Bosch Global Software Technologies

Topic: Mathematical Preliminaries

Schedule: 11 AM to 12.45 PM



Date: 29/03/2023 Day 3 Session 2 Time: 11 PM to 12.45 PM

BY  
Dr. A Vijayakrishna  
Senior Architect  
Bosch Global Software Technologies

MATHEMATICAL PRELIMINARIES



Dr. A Vijayakrishna  
Senior Architect  
Bosch Global Software Technologies



## DAY 3: Session 3

Date: 28/03/2023

Speaker: Mr.Kushal Kumar, Assistant Professor CS&E KSIT Bangalore

Topic: Hands on session covering Module 3

Schedule: 1.30 PM to 3.30 PM

 Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

Day 3 Session 3  
Date: 29/03/2023 Time: 1.30 PM to 3.30 PM

HANDS-ON SESSION  
BY  
Mr.Kushalkumar  
Assistant Professor, department of CSE  
K.S.Institute of Technology

Module 3: Data Frames, Lists, Special Values, The apply family

Hands-on Session - 3



Mr.Kushalkumar  
Assistant Professor, department of CSE  
K.S.Institute of Technology



## DAY 4: Session 1

Date: 30/03/2023

Speaker: Mr. Dheeraj D, Assistant Professor GAT Bangalore Schedule: 9 AM to 10.30 AM

Topic: Machine Learning basics and Machine learning using R

 Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

Day 4 Session 1  
Date: 30/03/2023 Time: 9 AM to 10.45 PM

BY  
Mr. Dheeraj D  
Assistant Professor  
GAT Bangalore

Machine Learning basics and Machine learning using R



Mr. Dheeraj D  
Assistant Professor  
GAT Bangalore



## DAY 4: Session 2

Date: 30/03/2023

Speaker: Mr. Dheeraj D, Assistant Professor GAT Bangalore

Topic: Machine Learning basics and Machine learning using R Hands-on Schedule: 11 AM to 12.45 PM



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

Date: 30/03/2023 **Day 4 Session 2** Time: 11 PM to 12.45 PM

BY  
Mr. Dheeraj D  
Assistant Professor  
GAT Bangalore

Machine Learning basics and Machine learning using  
R Hands-on



Mr. Dheeraj D  
Assistant Professor  
GAT Bangalore



## DAY 4: Session 3

Date: 30/03/2023

Speaker: Mr.Kushal Kumar, Assistant Professor CS&E KSIT Bangalore

Topic: Hands on session covering Module 4

Schedule: 1.30 PM to 3.30 PM



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

Date: 30/03/2023 **Day 4 Session 3** Time: 1.30 PM to 3.30 PM

HANDS-ON SESSION  
BY  
Mr.Kushalkumar  
Assistant Professor, department of CSE  
K.S.Institute of Technology

Module 4: Functions: Calling Functions, scoping, Arguments matching, writing functions: The function command, Arguments, specialized functions.

Hands-on Session - 4



Mr. Kushalkumar  
Assistant Professor, department of CSE  
K.S.Institute of Technology



## DAY 5: Session 1

Date: 31/03/2023

Speaker: Mr. Dattaram B A, Director Data Science, Noodle.AI Schedule: 9 AM to 10.30 AM

Topic: Use cases and landscape of data science Projects – An industrial Perspective



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

### Day 5 Session 1

Date: 31/03/2023

Time: 9 AM to 10.45 PM

BY

Mr. Dattaram  
Director for Data Science  
Noodle.AI, Bangalore

Use Cases and Landscape of Data Science Projects: An Industrial  
Perspective



noodle.ai

Mr. Dattaram  
Director for Data Science  
Noodle.AI, Bangalore



## DAY 5: Session 2

Date: 31/03/2023

Speaker: Mr. Dheeraj D, Assistant Professor GAT Bangalore

Topic: Project Demonstration of classification using R

Schedule: 11 AM to 12.45 PM



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

### Day 4 Session 2

Date: 31/03/2023

Time: 11 PM to 12.45 PM

BY

Mr. Dheeraj D  
Assistant Professor  
GAT Bangalore

Project Demonstration on classification using R



Mr. Dheeraj D  
Assistant Professor  
GAT Bangalore



## DAY 5: Session 3

Date: 31/03/2023

Speaker: Mr.Kushal Kumar, Assistant Professor CS&E KSIT Bangalore

Topic: Hands on session covering Module 5

Schedule: 1.30 PM to 3.30 PM



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

### Day 5 Session 3

Date: 31/03/2023

Time: 1.30 PM to 3.30 PM

HANDS-ON SESSION

BY

Mr.Kushalkumar

Assistant Professor, department of CSE  
K.S.Institute of Technology

Module 5: Pointers, Object Oriented Programming in R

Hands-on Session - 5



Mr.Kushalkumar  
Assistant Professor, department of CSE  
K.S.Institute of Technology



## DAY 6: Session 1

Date: 01/04/2023

Speaker: Mr. Ravindranath K, Research scholar NIT Trichy

Schedule: 9 AM to 10.30 AM

Topic: Introduction to Biomedical Signal Processing



Faculty Development Program on  
R PROGRAMMING AND IT'S APPLICATIONS

### Day 6 Session 1

Date: 01/04/2023

Time: 9 AM to 10.45 PM

BY

Mr. Ravindranath K

Research Scholar - NIT Trichy

Introduction to Biomedical Signal Processing



Mr. Ravindranath K  
Research Scholar - NIT Trichy



## DAY 6: Session 2

Date: 01/04/2023

Speaker: Mr. Ravindranath K, Research scholar NIT Trichy

Topic: Biomedical Signal Processing using R, hands-on approach Schedule: 11 AM to 12.45 PM



### Day 4 Session 2

Date: 01/04/2023

Time: 11 PM to 12.45 PM

BY  
Mr. Ravindranath K  
Research Scholar – NIT Trichy

Biomedical Signal Processing using R, Hands-on approach



Mr. Ravindranath K  
Research Scholar – NIT Trichy



## DAY 6: Session 3

Date: 01/04/2023

VALEDICTORY FUNCTION

Schedule: 1 PM



### Day 6 Session 3

Date: 01/04/2023

Time: 1.30 PM to 3.30 PM

Valedictory function and Certificate distribution



## Feedback Questionnaire

# Six Day FDP ON “R PROGRAMMING AND ITS APPLICATIONS”

01-04-2023 Day 6 Session 1 (9:00AM to 10:30AM):

Mr. Ravindranath,  
PhD scholar  
NIT Trichy  
Biomedical signal processing using R

[hsprashantha@ksit.edu.in](mailto:hsprashantha@ksit.edu.in) (not shared) [Switch account](#)

\* Required

Participant Name\*

Your answer

College Name

\*

Your answer

Email -ID

\*

Your answer

Mobile Number

\*

Your answer

1. How would you rate the session? Was the topic relevant?

\*

Strongly Agree



Agree  
Strongly Disagree  
Disagree

2. How would you rate the level and amount of information provided?

\*

Too Much  
About Right  
Not Enough

3. The information and skills presented were relevant and useful.

\*

Strongly Agree  
Agree  
Strongly Disagree  
Disagree

4. How would you rate the resource person? The resource person was knowledgeable, clear and professional:

\*

Strongly Agree  
Agree  
Strongly Disagree  
Disagree

5. How would you rate the activities?

\*

Excellent  
Very Good  
Good Poor

Comments/Suggestions\*

Your answer

Submit

Clear form

## Assessment questions

# K. S. INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

hsprashantha@ksit.edu.in (not shared) [Switch account](#)

\* Required

Assessment form of FDP

"R PROGRAMMING & IT'S APPLICATIONS"

Name of the Faculty\*

Your answer

College\*

Your answer

Email id\*

Your answer

1. . Functions are defined using the \_\_\_\_\_ directive and are stored as R objects.

- a) function
- b) funct
- c) functions
- d) fun

\*

- A
- B
- C
- D

2. Point out the wrong statement?

- a) Functions in R are “second class objects”
- b) The writing of a function allows a developer to create an interface to the code, that is

explicitly specified with a set of parameters

- c) Functions provides an abstraction of the code to potential users
- d) Writing functions is a core activity of an R programmer\*

A  
B  
C  
D

3. Which of the following is used for reading tabular data?

- a) read.csv
- b) dget
- c) readLines
- d) writeline\*

A  
B  
C  
D

4. Which of the following will add the title “R language” to the graph?

- a) titleAdd(“R language”)
- b) title(“R language”)
- c) titleBar(“R language”)
- d) var(x, na.rm=TRUE)\*

A  
B  
C  
D

5. Which are indexed by either row or column using a specific name or number?

- a) Datasets
- b) Data frames
- c) Data
- d) Functions\*

A  
B  
C  
D

6. What is the R function used to generate a matrix?\*

Your answer

7. What is the function of rbind and cbind in R programming?\*

Your answer

8. Consider the code

```
x<-9
```

```
seq(1,x,x/3)
```

what is the output?\*

Your answer

9. Consider a situation where we need to find the sum of the first n squares using a loop. Write an R code to perform this using vector based programming \*

Your answer

10 . What is the function of commands sapply and lapply?\*

Your answer

11. Write a simple R code to find the roots of quadratic equation?\*

Your answer

12. What is the function used to find what packages are available for loading?\*

Your answer

13. What is the R function used to find the remainder from division?\*

Your answer

14. What is the command used to round to the closest integer, to the closest integer below and to the closest integer above\*

Your answer

15. What is the function used to find the inverse of a matrix?\*

Your answer

Submit

  
**Event Coordinator**

  
**HOD**

  
**Principal**  
PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.



**KSIT**  
KARNATAKA STATE INSTITUTE OF TECHNOLOGY

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( ACCREDITED BY NAAC )

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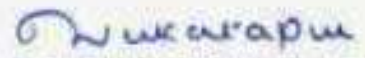
## *Certificate of Participation*


This is to certify that

Ms. Namyapriya Dayananda, Assistant Professor, K S Institute of Technology

has participated for the 6-Days Faculty Development Program on  
**"R PROGRAMMING AND IT'S APPLICATIONS"**  
organized by Department of COMPUTER SCIENCE & ENGINEERING  
in association with IQAC  
from 27<sup>th</sup> March to 1<sup>st</sup> April 2023

  
Dr. Prasantha H S  
CONVENER  
Prof., Dept of CSE

  
Dr. Rekha B Venkatapur  
Professor & Head, CSE Dept

  
Dr. Dilip Kumar K  
Principal / Director, KSIT



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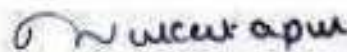
## *Certificate of Participation*

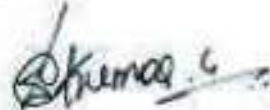
This is to certify that

*Mrs. Rashmi H, Assistant Professor, K.S. Institute of Technology*

has participated for the 6-Days Faculty Development Program on  
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organized by Department of COMPUTER SCIENCE & ENGINEERING  
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from 27<sup>th</sup> March to 1<sup>st</sup> April 2023

  
Dr. Prasantha H S  
CONVENER  
Prof., Dept of CSE

  
Dr. Rekha B Venkatapur  
Professor & Head, CSE Dept

  
Dr. Dilip Kumar K  
Principal / Director, KSIT



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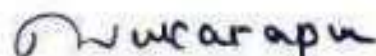
## *Certificate of Participation*

This is to certify that

Mrs. Ramanjinamma, Assistant Professor, K.S. Institute of Technology

has participated for the 6-Days Faculty Development Program on  
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Dr. Prasanth H S  
CONVENER  
Prof., Dept of CSE

  
Dr. Rekha B Venkatapur  
Professor & Head, CSE Dept

  
Dr. Dilip Kumar K  
Principal / Director, KSIT





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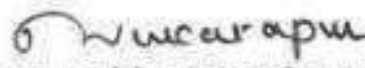
## *Certificate of Participation*

This is to certify that

Dr. Vijayalaxmi Mekali, Associate Professor, KSIT

has participated for the 6-Days Faculty Development Program on  
**"R PROGRAMMING AND IT'S APPLICATIONS"**  
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Dr. Prasantha H S  
CONVENER  
Prof., Dept of CSE

  
Dr. Rekha B Venkatapur  
Professor & Head, CSE Dept

  
Dr. Dilip Kumar K  
Principal / Director, KSIT



**Kammavari Sangham (R)-1952**  
**K.S.INSTITUTE OF TECHNOLOGY**  
**Department of Computer Science & Engineering**  
**FDP REPORT**  
**ON**  
**THE JOY COMPUTING PYTHON**

**Date: 01-1-2023 to 1-4-2023**

I, **Mrs. Pallavi K N**, Assistant Professor, Department of CSE .KSIT completed 12 weeks Faculty Development Programme on —The Joy of Computing using Python” organized by NPTEL-AICTE from Jan – April 2023

All India Council for Technical Education (AICTE) the statutory body and a national-level council for technical education, under Department of Higher Education, Ministry of Human Resource Development and NPTEL online certification courses are approved for Faculty Development Programme (FDP) by AICTE.

**NPTEL MOOCs - AICTE FDP Equivalence**

- NPTEL is already conducting Advance and Basic Level courses through MOOCs (Massive Open Online Courses)
- A large number of Advance Level Courses are being offered by NPTEL. These are 1 credit, 2 credit and 3 credit courses.
- Since MOOCs (Massive Open Online Courses) of NPTEL are not full time like regular FDPs, it is decided that its equivalence to regular FDP shall be considered as under.

S.No	No. of weeks of NPTEL Courses	No. of lectures per week	Total No. of Hrs. of engagement	Equivalence of NPTEL course with regular FDP
1	4	3	12	½ FDP of one week
2	8	3	24	Full FDP of one week
3	12	3	36	1½ FDP



Kammavari Sangham (R)-1952  
K.S.INSTITUTE OF TECHNOLOGY  
Department of Computer Science & Engineering

Certificate:

The certificate is awarded to **PALLAVI K N** for successfully completing the course **The Joy of Computing using Python** with a consolidated score of **77 %**.

Prof. Andrew Thangara  
NPTEL Coordinator  
IT Madras

(Jan-Apr 2023)

Roll No: NPTEL23CS20513234378 Duration of NPTEL course: 12 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams. This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 24<sup>th</sup> July 2018, similar to other refresher / orientation courses. F.No. AICTE / RIFD / FDP through MOOCs / 2017-18

SUBMITTED BY: Mrs. Pallavi K N

SIGNATURE OF FACULTY

HOD

Head of the Department  
Dept. of Computer Science & Engg  
K.S. Institute of Technology  
Bengaluru - 560 109

PRINCIPAL

PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.



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K.S.INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

FDP REPORT

ON

ADVANCED TOOLS AND TECHNIQUES FOR BEST RESEARCH

Venue: RVITM (Online)

Date: 26-09-2022 to 30-09-2022

I, **Mr. Somasekhar T**, Assistant Professor, Department of CSE .KSIT attended a Five Days Faculty Development Programme on “Advanced Tools and Techniques for Best Research” at RVITM, Bengaluru on 26th to 29th September 2022.

**Brochure:**



RV Educational institutions

**RV Institute of Technology and Management**  
Bangalore – 560076

**Department of Information Science Engineering**

<b>Event Name</b>	<b>ADVANCED TOOLS AND TECHNIQUES FOR BEST RESEARCH</b>
<b>Theme</b>	Practicing Tools for doing research activities
<b>Date</b>	26 <sup>th</sup> September 2022 to 30 <sup>th</sup> September 2022(5 Days)
<b>Venue</b>	Online



The FDP aims at deliberation, sharing knowledge to the target audience about the significance of research skills and ethical research practice by subject matter experts with practical exposure to faculty members and research scholars. This FDP provided the participants with an opportunity to acquire knowledge about contemporary developments that are taking place in various dimensions of research practice and inculcate and enhance the abilities of the faculty members to carry out independent research, write successful research projects, and finally to enable them for the technical communication considering national/international



Kammavari Sangham (R)-1952

K.S.INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

FDP REPORT

ON



# ARTIFICIAL INTELLIGENCE AND DATA SCIENCE IN IMAGE ANALYSIS

Venue: CMRIT

Date: 13-2-2023 to 17-2-2023

I, Mrs. Pallavi R, Assistant Professor, Department of CSE .KSIT. attended Five Days Faculty Development Programme on “Artificial Intelligence and Data Science in Image Analysis” organized by Department of Electronics and Communication Engineering, CMR Institute of Technology from 13th February – 17th February 2023.

## Brochure:

<p><b>About Institute</b> Established in 2000, the CMR Institute of Technology imparts quality, pragmatic education in engineering and management to help students hone their analytical abilities and develop their creative thinking skills. CMRIT meets the rapidly growing need for technology professionals by nurturing young minds in an innovative and progressive learning environment. Situated in the very heart of South India's IT corridor, the CMRIT campus in Whitefield, Bangalore is centrally located, well connected and easily accessible.</p> <p>At CMRIT, we are dedicated to holding aloft the flame of Sri Chikka Muniyappa Reddy's dreams. Towards this end, we are committed to promoting technical education as a catalyst to the growth and development of the country and society at large. With world-class infrastructure and experienced faculty, CMR Institute of Technology is the preferred destination for technocrats and managers who wish to shape the future.</p> <p><b>About Department</b> The Department of Electronics and Communication Engineering was started in the academic year 2000-2001. The Department offers an undergraduate programme in the field of Electronics and Communication Engineering for which the student intake is currently 240 and postgraduate program MTech in VLSI design and embedded systems for which the student intake is currently 24. The Department of Electronics and Communication Engineering is approved by the All India Council for Technical Education (AICTE), and is permanently affiliated to Visvesvaraya Technological University (VTU), Belgaum in Karnataka. The National Board of Accreditation, New Delhi accredits the Department. The Department has established a Research Centre under NTU to facilitate research activities for both faculty and students. Students may also opt to pursue an M.S. through the research programme.</p>	<p><b>ORGANIZING COMMITTEE:</b></p> <p><b>PATRONS:</b> Shri. K. C. Ramamurthy Chairman, CMRIT Dr. Sabitha Ramamurthy President, CMRIT Shri. K.R. Jayadeep CEO, CMRIT</p> <p><b>ADVISORY COMMITTEE:</b> Dr. Sanjay Jain, Principal, CMRIT Dr. B. Narasimha Murthy, Vice-Principal, CMRIT</p> <p><b>CONVENER:</b> Dr. Elumalai R. HOODI, CMRIT</p> <p><b>Programme Coordinator:</b> Dr. Kavitha.D, Assistant Prof. ECE Dept. CMRIT Bangalore</p> <p><b>RESOURCE PERSONS</b> 1. Dr. B. Sathyanarayana, Ph. D. Scientific Officer (H), Tata Institute of Fundamental Research, Mumbai. 2. Dr. Kiruba, Data Scientist, Elpis IT solutions PVT LTD., Bangalore. 3. Mr. Gautam Adke, Data Scientist, Michelin Tyres, Pune. 4. Dr. G. Kavitha, Madras Institute of Technology (MIT) Campus, Chennai. 5. Dr S. Geetha, Professor VIT, Chennai 6. Dr. Sudhakar M S, VIT, Vellore 7. Dr Lavanya, SRM Institute of Technology, Chennai 8. Dr. Pallavi adke, PC-COER, Pune</p>	<p><b>5 DAYS online FACULTY DEVELOPMENT PROGRAM (FDP) ON</b></p> <p><b>“Artificial Intelligence and Data Science in Image Analysis”</b></p> <p><b>For Faculty, Research Scholars &amp; Industry person</b></p> <p><b>13/02/2023 to 17/02/2023</b></p>  <p><b>Organized by</b> Department of Electronics and Communication Engineering, CMR Institute of Technology, Bengaluru-560037</p> 
<p><b>Course Content</b></p> <ul style="list-style-type: none"> <li>Fundamentals, applications, recent trends &amp; challenges in Image Processing &amp; Computer Vision</li> <li>Fundamentals of AI and Data Science</li> <li>Data science and its applications</li> <li>Image Enhancement using Deep Learning Techniques</li> <li>Natural Language Processing and its basics</li> <li>Applications of Natural Language Processing in Image Analysis (Hands-on)</li> <li>Human Brain image and pattern analysis using machine learning techniques</li> <li>Explainable Artificial Intelligence</li> <li>Introduction to Reinforcement learning and its application in image domain</li> <li>Generative Adversarial Network (GAN) for Images (with hands on MNIST dataset)</li> <li>ML and DL algorithms for medical images.</li> </ul>	<p><b>ABOUT THE FDP</b></p> <p>The Faculty Development Program aims at providing strong theoretical background of Artificial Intelligence, Data Science and its applications in the field of Medical Image Processing. Computer vision is a field of artificial intelligence that works on enabling computers to see, identify and process images in the same way that human vision does, and then provide the appropriate output. This FDP introduces various AI, ML &amp; DL algorithms and research strategies to be adopted for effective &amp; efficient processing of medical images through computer vision. This FDP allows robust collaborations between AI researchers and health practitioners to discuss on socio-technological challenges and come up with state-of-the-art technology directions in the interdisciplinary field of engineering and medicine.</p> <p>The proposed FDP is designed to offer a unique opportunity to the participants to interact with the prominent experts from industry, faculty from premier academic institutions, and distinguished practitioners working in the area of AI, DS and Image processing. Lectures will be delivered by eminent experts, having rich technical experience in the respective field of application and hence will provide deeper insight and knowledge to the participants about the advances in the recent field of AI.</p>	<p><b>Registration Details:</b></p> <p><b>Registration Amount : 300/-</b></p> <p><b>Participants need to pay the Registration Fee Online using the following details:</b></p> <p>Name of the Account holder: The Principal Name of the Bank and Branch: BANK OF INDIA IFS Code: BKID0008434 SB A/c Number: 843410110000242 Address of the Bank: AECS Layout Branch, CMRIT, ITPL Road, Bangalore - 560037</p> <p>Participants interested in attending FDP can complete the registration form along with the registration fee copy on or before 30th January 2023. <b>Registration Link:</b> <a href="https://forms.gle/cSvpTheAJDSeY6sW9">https://forms.gle/cSvpTheAJDSeY6sW9</a></p> <p><b>Point of Contact</b> Dr. Kavitha.D - 9538792426 AP, ECE, CMRIT <a href="mailto:kavitha.d@cmrit.ac.in">kavitha.d@cmrit.ac.in</a></p>



**Kammavari Sangham (R)-1952**  
**K.S.INSTITUTE OF TECHNOLOGY**  
**Department of Computer Science& Engineering**

**About FDP**

In response to the growing demand for expertise in Artificial Intelligence (AI) and Data Science, particularly in the context of image analysis, CMRIT organized a Faculty Development Programme (FDP). This FDP aimed to equip faculty members with the knowledge and skills necessary to integrate AI and Data Science techniques into the curriculum, conduct cutting-edge research, and foster collaborations with industry partners. This report provides an overview of the FDP conducted at CMRIT, highlighting its objectives, key components, outcomes, and impact on faculty members and the institution.

The Faculty Development Programme on Artificial Intelligence and Data Science in Image Analysis conducted at CMRIT has been instrumental in bridging the gap between academia and industry, empowering faculty members to embrace cutting-edge technologies and methodologies. By fostering competence, curriculum development, research, and industry collaboration, the FDP has positioned the institution to nurture a future-ready workforce capable of driving innovation and societal impact in image analysis and related fields. Continued investment in faculty development initiatives focused on emerging technologies is essential to ensure the sustained growth and relevance of engineering education in the digital age.



Kammavari Sangham (R)-1952  
K.S.INSTITUTE OF TECHNOLOGY  
Department of Computer Science & Engineering

Certificate:



SUBMITTED BY: Mrs. Pallavi R

SIGNATURE OF FACULTY

HOD

Head of the Department  
Dept. of Computer Science & Engg  
K.S. Institute of Technology  
Bengaluru - 560 109

PRINCIPAL

PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109



Kammavari Sangham (R)-1952  
**K.S.INSTITUTE OF TECHNOLOGY**  
 Department of Computer Science & Engineering

**FDP REPORT**

ON

**AMAZON WEB SERVICES**

Venue: RVITM

Date: 22-08-2022 to 27-08-2022

I, Mrs. Geetha R, Assistant Professor, Department of CSE .KSIT, attended One week Faculty Development Programme on “Amazon Webb Services” organized by Department of ISE, RV Institute of Technology at RVITM, Bangalore on 22nd to 27th August 2022 in Association with BrainOvision, Hyderabad.

**RV Institute of Technology and Management**  
 Approved by Visvesvaraya Technological University, Bangalore | Approved by AICTE, New Delhi

**aws**

**One week National Level Faculty Development Program**  
**aws On Amazon Web Services**

Join Free Virtual Faculty Development Program

**BRAIN O VISION**

**22nd to 27th - AUG 2022**  
 06:30 PM - 08:00 PM

**DR BUDDHA CHANDRASHEKHAR**  
 Chief Coordinator - AICTE  
 Honorable Chief Guest - for Event

Use Host College Code : RV Institute of Technology and Management

[www.brainovision.org/fdp/faculty](http://www.brainovision.org/fdp/faculty)

Participation Certificate will be Provided | Low cost 20-40k INR

**Dr. Jayapal R**  
 Principal, RVITM

**Dr. Latha C A**  
 Prof. & Head, ISE, RVITM

Organized by  
**Department Of Information Science & Engineering**

**About FDP**

In an era marked by rapid technological advancements, educators play a pivotal role in preparing students for the challenges and opportunities of the digital age. In Cloud computing has emerged as a transformative force, revolutionizing the way businesses operate and accelerating innovation across industries. Recognizing the importance of equipping faculty





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K.S.INSTITUTE OF TECHNOLOGY

Department of Computer Science & Engineering

members with the knowledge and skills to leverage cloud technologies effectively, a Faculty Development Programme (FDP) on Amazon Web Services (AWS) was organized. This FDP provides an overview and its significance in enhancing pedagogical practices and fostering innovation in education.

The Faculty Development Programme on Amazon Web Services has emerged as a catalyst for educational transformation, empowering faculty members to embrace cloud technologies and innovate in their teaching and research endeavours. By equipping educators with the necessary knowledge and skills, the FDP has positioned academic institutions to nurture a future-ready workforce capable of driving digital innovation and sustainable growth.

Certificate:



SUBMITTED BY: Mrs. Geetha R

*Geetha R*  
SIGNATURE OF FACULTY

*[Signature]*  
HOD

Head of the Department  
Dept. of Computer Science & Engg  
K.S. Institute of Technology  
Bengaluru - 560 109

*[Signature]*

PRINCIPAL  
PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109



# K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

DEPARTMENT OF COMPUTER SCIENCE AND DESIGN

## FDP REPORT

ON

### “Developing and Deploying spring boot microservices on Kubernetes cluster”

Venue: Ramaiah Institute of Technology

Date: 22/08/2022 to 26/08/2022

Dr. Deepa SR, Professor and HoD, Department of CS&D, KSIT attended an FDP on Developing and Deploying spring boot microservices on Kubernetes cluster Organized by Department of Computer Science and Engineering, Ramaiah Institute of Technology, Bengaluru from 22/08/2022 to 26/08/2022.

<p><b>RAMAIAH INSTITUTE OF TECHNOLOGY</b> (Autonomous Institute, Affiliated to VTU)</p> <p><b>Five Days Faculty Development Programme on</b></p> <p><b>“Developing and Deploying spring boot microservices on Kubernetes cluster”</b></p> <p><b>22<sup>nd</sup> to 26<sup>th</sup> August 2022</b></p> <p><b>REGISTRATION FORM</b></p> <p>Name: .....</p> <p>Designation: ..... Dept: .....</p> <p>Institution: .....</p> <p>Address: .....</p> <p>Phone: ..... Fax: .....</p> <p>Mobile No: .....</p> <p>Email ID: .....</p> <p>Signature of Applicant _____</p> <p>Signature of Principal _____</p>	<p><b>CHIEF PATRONS</b></p> <p>Dr. M. R. Jayaram, Chairman, GEF Sri. M. R. Seetharam, Vice Chairman, GFF Sri. M. R. Ramaiah, Secretary, GEF Sri. B. S. Ramaprasad, Chief Executive, GFF Dr. N. V. R. Naidu, Principal, Ramaiah Institute of Technology</p> <p><b>CONVENER</b></p> <p>Dr. Annapurna P. Patil, HoD, CSE, RIT</p> <p><b>ORGANIZING COMMITTEE</b></p> <p>Dr. J. Geetha Chandrika P Prasad S Dr. Sowmya B J Dr. Sangetha V</p> <p><b>TOPICS</b></p> <ul style="list-style-type: none"> <li>• Overview of microservices and its architecture</li> <li>• Preparing the Environment</li> <li>• Introduction to Spring Boot for microservices and building microservices with Spring Boot</li> <li>• Communication between two or more microservices through REST services (setting up Eureka service and two or three services)</li> <li>• Mocking and Testing service by using Mockito and Junit</li> <li>• Connecting spring microservices with a database</li> <li>• Introduction Docker, containers and Dockerfile</li> <li>• Kubernetes concepts- pod's, replica sets and deployments with simple exercises</li> <li>• Configuring a REST API and deploying it on Kubernetes as a microservice</li> <li>• Ways to run applications on the deployed Kubernetes environment and access the deployed applications</li> </ul> <p><b>SPEAKERS</b></p> <ul style="list-style-type: none"> <li>• Industry Experts from CISCO, Micro Focus, HP, IBM &amp; Google.</li> <li>• CSE Faculty from RIT</li> </ul> <p><b>IMPORTANT DATES</b></p> <p>Last Date of Online Registration: 17-08-22 Registration Link: <a href="https://forms.gle/q521951gC8aKJFA">https://forms.gle/q521951gC8aKJFA</a> Spot Registration also available if seats are available</p>  	<p><b>RAMAIAH INSTITUTE OF TECHNOLOGY</b></p> <p><b>Five Days Faculty Development Programme on</b></p> <p><b>“Developing and Deploying spring boot microservices on Kubernetes cluster”</b></p> <p>Organized by the Department of Computer Science and Engineering</p> <p><b>RAMAIAH INSTITUTE OF TECHNOLOGY</b> (Autonomous Institute, Affiliated to VTU) MSR Nagar, MSRIT Post, Bangalore-54, Karnataka, (IN) 04 Phone Numbers : +91 80 23603123, 23603120, 23600822, 23606934, 23606936 Fax +91 80 23603124 Web: <a href="http://www.msrit.edu">www.msrit.edu</a></p>  <p><b>Technical Partners</b></p> 
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### About the FDP:

The Faculty Development Program on Developing and Deploying Spring Boot Microservices on Kubernetes Cluster was conducted with the aim of equipping faculty members with the essential skills and knowledge to leverage modern technologies in software development and

deployment. The program focused on utilizing Spring Boot for building microservices and deploying them on a Kubernetes cluster, which is a widely adopted container orchestration platform.

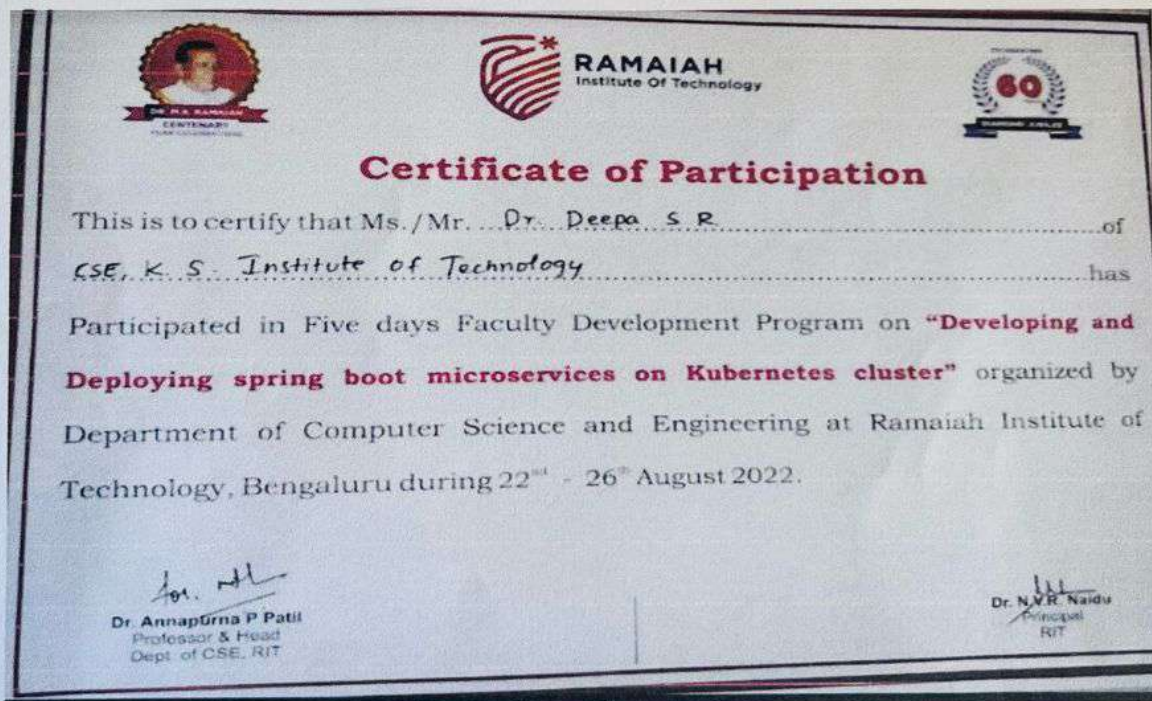
Objectives of the FDP are highlighted as below:

1. To familiarize faculty members with the concepts of microservices architecture.
2. To provide hands-on experience in developing microservices using Spring Boot.
3. To introduce Kubernetes as a platform for container orchestration.
4. To enable participants to deploy Spring Boot microservices on a Kubernetes cluster.

Submitted by:

*Deepa*

[Dr. Deepa SR]



*Deepa*

SIGNATURE OF HOD

*Dr. N.V.R. Naidu*

SIGNATURE OF PRINCIPAL



# K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

DEPARTMENT OF COMPUTER SCIENCE AND DESIGN

## FDP REPORT

ON

### R programming and its Applications

Venue: KSIT

Date: 27-03-2023 to 01-04-2023

**Mrs. Sushma A**, Assistant Professor, Department of CS&D, KSIT attended a FDP on **R programming and its Applications** Organized by Department of Computer Science and engineering at K S Institute of Technology, Bengaluru from **27-03-2023 to 01-04-2023**

#### About Institute

Established in 2000, the CMR Institute of Technology imparts quality, pragmatic education in engineering and management to help students hone their analytical abilities and develop their creative thinking skills. CMRIT meets the rapidly growing need for technology professionals by nurturing young minds in an innovative and progressive learning environment. Situated in the very heart of South India's IT corridor, the CMRIT campus in Whitefield, Bengaluru is centrally located, well connected and easily accessible.

At CMRIT, we are dedicated to holding aloft the flame of Sri Chikka Muniyappa Reddy's dreams. Towards this end, we are committed to promoting technical education as a catalyst to the growth and development of the country and society at large. With world-class infrastructure and experienced faculty, CMR Institute of Technology is the preferred destination for technocrats and managers who wish to shape the future.

#### About Department

The Department of Electronics and Communication Engineering was started in the academic year 2000-2001. The Department offers an undergraduate programme in the field of Electronics and Communication Engineering for which the student intake is currently 240 and postgraduate program M.Tech in VLSI design and embedded systems for which the student intake is currently 24. The Department of Electronics and Communication Engineering is approved by the All India Council for Technical Education (AICTE) and is permanently affiliated to Visvesvaraya Technological University (VTU), Belgaum in Karnataka. The National Board of Accreditation, New Delhi accredits the Department. The Department has established a Research Centre under VTU to facilitate research activities for both faculty and students. Students may also opt to pursue an M.S. through the research programme.

#### ORGANIZING COMMITTEE:

##### PATROSS:

**Shri. K.C. Ramamurthy**  
Chairman, CMRIT

**Dr. Sabitha Ramamurthy**  
President, CMRIT

**Shri. K.R. Jayadeep**  
CEO, CMRGI

##### ADVISORY COMMITTEE:

**Dr. Sanjay Jain**  
Principal, CMRIT

**Dr. B. Narasimha Murthy**  
Vice-Principal, CMRIT

##### CONVENER:

**Dr. Elnatal R. BOD-ECE**, CMRIT

##### Programme Coordinator

**Dr. Kavitha.D.**  
Assistant Prof. ECE Dept, CMRIT Bengaluru

##### RESOURCE PERSONS

1. Dr. B. Satyanarayana, Ph. D. Scientific Officer (II), Tata Institute of Fundamental Research, Mumbai.
2. Dr. Kiruba, Data Scientist, Eipris IT solutions PVT LTD., Bangalore.
3. Mr. Gaurav Adke, Data Scientist, Michelin Tyres, Pune.
4. Dr. G. Kavitha, Madras Institute of Technology (MIT Campus), Chennai.
5. Dr.S.Geetha, Professor, VIT, Chennai
6. Dr.Sudhakar M.S, VIT, Vellore
7. Dr.Lavanya, SRM Institute of Technology, Chennai
8. Dr. Pallavi adke, PCCOER, Pune

#### **5 DAYS online FACULTY DEVELOPMENT PROGRAM (FDP) ON**

**"Artificial Intelligence and Data Science in Image Analysis"**

**For Faculty, Research Scholars & Industry person**

**13/02/2023 to 17/02/2023**



**Organized by**  
Department of Electronics and Communication Engineering,  
CMR Institute of Technology, Bengaluru-560037



**CHIEF PATRONS**

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President, Kammavari Sangham  
**Sri R. Leela Shankar Rao**  
Hon. Secretary, Kammavari Sangham  
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Treasurer, Kammavari Sangham

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CEO, KSIT  
**Dr. Dilip Kumar K**  
Principal / Director, KSIT

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Professor & Head of the Department  
Computer Science & Engineering, KSIT

**CONVENERS**

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Professor, Department of Computer Science & Engineering,  
KSIT

**Mr. Kushal Kumar B N**

Asst. Professor, Department of Computer Science & Engineering,  
KSIT

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Asst. Professor, CSE, KSIT  
**Dr. Vijayakshmi Mekali**  
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Assistant Professor, CSE, KSIT  
**Mr. Manoj Kumar S**  
Assistant Professor, CSE, KSIT

**Mrs. Pallavi K N**  
Assistant Professor, CSE, KSIT  
**Mrs. Rashmi H**  
Assistant Professor, CSE, KSIT  
**Mrs. Kavya M S**  
Assistant Professor, CSE, KSIT  
**Mr. T Somasekhar**  
Assistant Professor, CSE, KSIT  
**Mrs. Supreetha Ganesh**  
Assistant Professor, CSE, KSIT  
**Mrs. Pallavi R**  
Assistant Professor, CSE, KSIT  
**Mr. Lakshminath**  
Assistant Professor, CSE, KSIT  
**Ms. Namyapriya D**  
Assistant Professor, CSE, KSIT  
**Mrs. Ramanjinnamma G**  
Assistant Professor, CSE, KSIT

**TOPICS TO BE COVERED IN FDP**

- Introduction to data science & Hands-on session
- Mathematical Preliminaries: Data science and Big data & Hands-on session
- Data Science using R programming & Hands-on session
- Machine learning using R: Machine learning using R examples & Hands-on session
- Image Processing Using R: Image Processing using R examples
- Mini Project



**Six Days Faculty Development program  
on  
R PROGRAMMING & IT'S APPLICATIONS**

**27<sup>th</sup> March to 1<sup>st</sup> April 2023**

Venue

**K S INSTITUTE OF TECHNOLOGY, Bengaluru**



Organized by  
**Department of  
Computer Science & Engineering**  
In Association With IQAC



**ABOUT KAMMAVARI SANGHAM**

The Kammavari Sangham a multi-activity non-profit oriented voluntary service organization was established in the year 1952 with the sole objective of providing educational service to community and women. The Sangham has diversified its activities since its establishment over five decades ago with a firm belief that quality and meaningful education will only be the strong foundation for progress about economic and social changes to the lives of thousands. The Sangham went about establishing educational institutions starting with K.S. Polytechnic in 1974. Enriched with the success of history into technical education, the Sangham moved forward starting the K.S. Institute of Technology (IIT) in the year 1991, K. S. School of Engineering & Management (KSEM) in the year 2010, K. S. School of Architecture (KSSA) in the year 2015 & K. S. PU College in 2020. In the following years these institutions have worked for themselves as emblems of excellence through academic excellence achieved in a very short span of time, by providing free moral education and scholarship to the deserving students in the community. It has furthered its commitment to education.

**ABOUT THE INSTITUTION**

K. S. Institute of Technology was established in the year 1991 by the Kammavari Sangham with a commitment to provide value based technical education. KSIT is strategically located at No. 19, Baghucottahalli, Kadakoppa Main Road, Bengaluru. The Institution has modern infrastructure with state-of-the-art equipment and laboratory facilities, well-qualified faculty and an impressive placement record. The objective of KSIT is to impart quality education to students and enable them to develop the abilities of problem solving, creative thinking and adaptability in their chosen field. KSIT is AACSB accredited.

**ABOUT THE DEPARTMENT**

The Department of Computer Science and Engineering is established in the year 1991 and offers B.E. B.Tech in CSE and also has R & C center for Ph. D. scholars. The department is NBA (III) accredited. It has well equipped experienced and committed faculty to provide qualitative industry focus education to students. The infrastructure fully and supports learning skills on the latest technology in the industry. Our mission is to develop professionally with social responsibility to become leaders in technical industries and also become entrepreneurs with good ethics. It has several active professional bodies membership like CSI, IITSI, IETE and IIT where students learn to do projects, present technical papers and interact with industry which includes placements and leadership qualities. The students win prizes in Hackathons - IIT, Codevivo, Topcoder and presented papers in International Conferences.

**ABOUT THE FDP**

R is a free/libre and Open Source Software (FLOSS) - a well-organized and sophisticated package - that facilitates data analysis, modeling, inferential testing, and forecasting. It is user-friendly software that allows creating how-to function commands to solve statistical problems. It runs on a variety of UNIX platforms and similar systems such as Linux, Windows and Mac OS X. R is one of the most preferred open-source languages for analytics and data science. The cross-platform compatibility of R and its capacity to handle large and complex data sets makes it an ideal tool for academics to analyze data in their labs.

R can be used for simple calculations, matrix calculations, differential equations, optimization, statistical analysis, plotting graphs, etc. Also, it is useful for anybody who wishes to undertake intensive statistical computations and data visualizations. It allows you to develop custom Artificial Intelligence Apps and has numerous packages that are used in the field of ML. Also, R programming is a prescribed course for Computer Science, Information Science and other branches of the VTU 2021 scheme.

**METHODOLOGY OF THE FDP**

The workshop will be conducted using experts from industry and academia covering basic applications with hands-on sessions.

**BENEFITS OF THE FDP**

- On successful completion the workshop participants will be able to
  - learn basic R programming
  - learn basic mathematical preliminaries
  - learn how to do basic statistical analysis using R
  - learn how to use R for ML and Image Processing applications
  - Certificate for attending a 6 days FDP



**WHO SHOULD ATTEND**

The R workshop will be useful for Faculty of Engineering Dept., Researcher & Working Professionals.

**REGISTRATION FEE**

**₹ 500 /-**

Last Date For Registration: 20-03-2023 (Limited Participants)

[Scan Here For Payment](#)



[Scan Here For Registration](#)



**REGISTRATION FORM (Offline Mode)**

Name.....  
 Designation.....  
 Department.....  
 Institution.....  
 Address.....  
 Mob No.....  
 Email.....  
 Date.....

Registration: 500 Rs  
 Contact Details for Registration  
 Manoj Kumar S : 99708 12369  
 Kushal Kumar B N : 99708 12365

Signature of Assistant

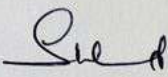
Signature of School Principal

## About FDP

The FDP on R Programming offers participants a comprehensive understanding of R, a powerful programming language widely used in data analysis, statistics, and visualization. Through expert-led sessions and hands-on exercises, participants will gain proficiency in R programming fundamentals, data manipulation, statistical analysis, and data visualization techniques. The FDP aims to equip participants with practical skills to analyze data, interpret results, and communicate findings effectively.

During this FDP participant will understand

Participants will be proficient in utilizing R for various research and analytical tasks, empowering them to apply their knowledge in academic research, industry projects, and beyond.

SUBMITTED BY: 



# K.S. INSTITUTE OF TECHNOLOGY


( APPROVED BY AICTE, NEW DELHI; AFFILIATED TO VTU, BELAGAVI, KARNATAKA )  
( ACCREDITED BY NBA : CSE, ECE & MECH ENGINEERING )  
( ACCREDITED BY NAAC )  
#14, RAGHUVANAHALLI, KANAKAPURA ROAD, BENGALURU - 560109

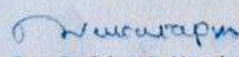
## *Certificate of Participation*

This is to certify that

**Ms. Sushma A**, Assistant professor, K S Institute of Technology

has participated for the 6-Days Faculty Development Program on  
**"R PROGRAMMING AND IT'S APPLICATIONS"**  
organized by Department of COMPUTER SCIENCE & ENGINEERING  
in association with IQAC  
from 27<sup>th</sup> March to 1<sup>st</sup> April 2023

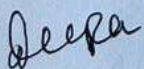
  
**Dr. Prasantha H S**  
CONVENER  
Prof., Dept of CSE

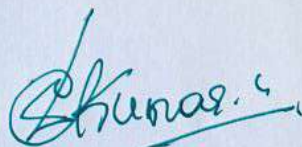
  
**Dr. Rekha B Venkatapur**  
Professor & Head, CSE Dept

  
**Dr. Dilip Kumar K**  
Principal / Director, KSIT

by: Investigate

Notes

  
SIGNATURE OF HOD

  
SIGNATURE OF PRINCIPAL



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109**

#14,Raghuvanahalli,KanakapuraMainRoad,Bengaluru-5600109

DEPARTMENT OF COMPUTER SCIENCE AND DESIGN

## FDP REPORT

ON

**“Artificial intelligence and Data Science in Image Analysis”**

Venue:CMRIT

Date:13-02-2023 to 17-02-2023.

Mrs.SurekhaByakod,Assistant Professor, Department of CS&D, KSIT attended a FDP on **“Artificial intelligence and Data Science in Image Analysis”**Organized by Department of Electronics and Communication Engineering at CMRIT , Bengaluru from **13-02-2023 to 17-02-2023**.

### About the FDP:

Artificial intelligence (AI) and data science play integral roles in image analysis, revolutionizing how we interpret, process, and extract insights from visual data.

SUBMITTED BY:

[SUREKHA BYAKOD]



CMR Institute of Technology  
#132, AECS Layout, ITPL Main Road, Kundalahalli, Bengaluru - 560037

## Certificate of Participation

This is to certify that

**Surekha Byakod**

has attended the 5 DAYS online FACULTY DEVELOPMENT PROGRAM (FDP) on

**“Artificial Intelligence and Data Science in Image Analysis”**

Conducted by Department of Electronics and Communication Engineering,  
CMR Institute of Technology, Bengaluru from 13th February to 17th February 2023

Coordinator

HoD, Dept. Of ECE

Principal

SIGNATURE OF HOD

SIGNATURE OF PRINCIPAL



# K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

DEPARTMENT OF COMPUTER SCIENCE AND DESIGN

## FDP REPORT

ON

### “Entrepreneurship Development”

Venue: K.S. School of Engineering and Management

Date: 12/12/2022 to 16/12/2022

Mr. S. Subhash Kumar, Assistant Professor, Department of CS&D, KSIT attended an FDP on **Entrepreneurship Development** Organized by Department of Management Studies, K. S. School of Engineering and Management, Bengaluru from 12/12/2022 to 16/12/2022.

#### About the College

The Kammavari Sangham, a multi-activity non-profit oriented voluntary service organization, was established in the year 1952 with the sole objective of providing charitable service to community and society. The Sangham has diversified its activities since its establishment over five decades ago. With a firm belief that quality and meaningful education only can lay the strong foundation for bringing about economic and social changes to the lives of thousand, the Sangham went about establishing educational institutions, starting with K.S. Polytechnic in 1992. Enthused with this success of its foray into technical education, the Sangham then started the K.S Institute of Technology (KSIT), its first Engineering College in the year 1999. Following the success of KSIT, the Sangham ventured onwards to start yet another technical institution, oriented towards advanced studies and research, and thus, the K.S Group of Institutions (KSGI) was born in 2010. KSGI was renamed as K.S.School of Engineering & Management in 2011. K.S.School of Architecture was established in the year 2015 and followed by K S P U College in the year 2022.

#### About the department

The Department of Management Studies, KSSEM was established in the year 2010, offers an MBA program affiliated to Visvesvaraya Technological University. The objective of the program is to develop analytical, strategic decision-making skills and to make the students proactive, innovative and competitive to face challenges in the Business environment. Our activities are focused towards developing viable business solutions and encouraging entrepreneurship with ethical values for a holistic development and employability.

#### AIM OF THE FDP

This Faculty Development Program (FDP) is designed to train and develop professionals in the area of entrepreneurship, innovation and incubation in which they can act as resource persons in guiding and motivating students to take up entrepreneurial careers. The outcome of the FDP is likely to provide essential tools and techniques through diverse hands-on-training methods. The FDP will enable the participants to understand the concept of entrepreneurship and its varied dimensions.

#### PATRONS

- Sri. R. Rajagopal Naidu  
Hon. President, Kammavari Sangham
- Sri. R. Leela Shankar Rao  
Hon. Secretary, Kammavari Sangham
- Sri. T. Neerajakshulu Naidu  
Hon. Treasurer, Kammavari Sangham

#### ADVISORY COMMITTEE

- Dr. H. P. Khincha, Chairman. Academic Advisory Board, KSGI
- Dr. K.V.A. Baijaji, CEO, KSGI
- Dr. K.N. Balasubramanya Murthy, Member, KSIT
- Dr. K. Rama Narasimha, Principal, KSSEM



K.S. SCHOOL OF ENGINEERING AND MANAGEMENT  
Approved by AICTE, New Delhi; Affiliated to VTU, Belagavi, Karnataka, Accredited by AACSB  
www.kstems.edu.in  
DEPARTMENT OF MANAGEMENT STUDIES

#### Five Day Faculty Development Program on

### “Entrepreneurship Development”

Date:  
12<sup>th</sup> - 16<sup>th</sup> December, 2022

Organized By:  
Department of Management Studies  
K.S School of Engineering and Management

Venue:  
Architecture Seminar Hall



#### About the FDP:

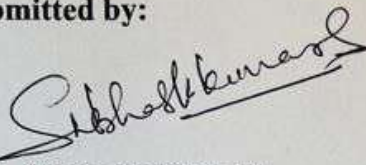
The Faculty Development Program on Entrepreneurship Development aimed to empower faculty members with the knowledge and skills necessary to foster an entrepreneurial mindset among students and promote entrepreneurship within the academic community. The program focused on various aspects of entrepreneurship, including idea generation, business planning, financing, and marketing strategies.



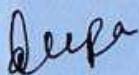
**Objectives:**

1. To familiarize faculty members with the fundamentals of entrepreneurship.
2. To provide insights into the entrepreneurial ecosystem and its components.
3. To equip participants with tools and techniques for nurturing entrepreneurship among students.
4. To explore innovative approaches to teaching entrepreneurship in the classroom.
5. To facilitate networking and collaboration among faculty members interested in entrepreneurship education.

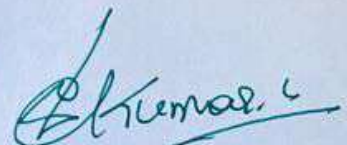
**Submitted by:**



[Mr. Subhash Kumar]



SIGNATURE OF HOD



SIGNATURE OF PRINCIPAL



# K. S. INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

FDP on Artificial Intelligence and Machine Learning for Image Analysis-MATLAB &Python Perspective

Organized by CMRIT, Bengaluru

**Duration:**08-05-2023 to 13-5-2023

The following faculties has attended the above mentioned FDP.

1. Mrs. Suma Santosh.
2. Mrs.Bhanumathi A.
3. Mrs. Anita P.
4. Mrs.Kavya B M

## About FDP:

 <b>CMR Institute of Technology</b> <i>Department of Electronics &amp; Communication Engineering</i> <b>Five days Faculty Development Programme</b> <b>On</b> <b>"Artificial Intelligence and Machine learning for Image Analysis-Matlab &amp; Python Perspective"</b> <b>(08.05.2023 to 12.05.2023)</b> <u>Event Schedule</u>			
Date/Day	Time	Programme	Handled By
08.05.2023	9.30 A.M to 10.00 A.M	Inauguration Session	
08.05.2023	10.00 A.M to 12.00 P.M	Deep learning using PyTorch for Medical Image Analysis-PART-I	Dr.Kumar Rajamani Senior Manager Algorithms, KLA Tencor
08.05.2023	1.30 P.M to 3.30 P.M	Machine learning for Image Classification using Python	Dr.N.Kasthuri Professor Kongu Engineering College ,Erode
09.05.2023	10.00 A.M to 12.00 P.M	Image Enhancement using Deep learning Techniques	Dr.S.Geetha Professor,VIT,Chennai
09.05.2023	1.30 P.M to 3.30 P.M	Generative Adversarial Network (GAN) for Images (with hands on MNIST dataset)	Dr. Pallavi adke PCCOER ,PUNE
Due to Karnataka assembly Elections the scheduled session on 10.05.2023 is postponed to 13.05.2023.			
11.05.2023	10.00 A.M to 12.00 P.M	Thermal image processing for Bio medical images	Dr.K.Palani Thamaraj Associate Professor,SCOPE, VIT, Chennai
11.05.2023	1.30 P.M to 3.30 P.M	Deep learning Algorithms for Medical images	Dr.Kavitha D Assistant Professor CMRIT,Bengaluru
12.05.2023	10.00 A.M to 12.00 P.M	Introduction to Reinforcement learning and its applications in image domain	Mr.Gaurav Adke Data Scientist, Michelin Tyres
12.05.2023	1.30 A.M to 3.30 P.M	Deep learning using PyTorch for Medical Image Analysis-PART-II	Dr.Kumar Rajamani Senior Manager Algorithms, KLA Tencor
13.05.2023	10.00 A.M to 12.00 P.M	Feature Extraction and Classification -Satellite Images	Dr.K.Venkateswaran Professor CMRIT,Bengaluru
13.05.2023	12.00 P.M to 12.30 P.M	Valedictory Session	

Artificial Intelligence (AI) and Machine Learning (ML) have transformed image analysis, offering robust tools for tasks like object detection, segmentation, and classification. From both MATLAB and Python perspectives, these languages provide comprehensive environments tailored for image processing and ML tasks. In MATLAB, the Image Processing Toolbox offers functions for filtering, morphology, and feature extraction. The Computer Vision Toolbox facilitates object detection, tracking, and recognition. The Statistics and Machine Learning Toolbox enables classification, regression, and clustering tasks, while the Deep Learning Toolbox supports convolutional neural networks (CNNs) for advanced image analysis. Python, with libraries like Tensor Flow and Open CV, provides a powerful platform for image analysis and ML. Open CV offers extensive support for tasks like filtering and object tracking, while Tensor Flow and Keras enable the building and training of deep learning models, including CNNs for image classification and segmentation. Other libraries like PyTorch and scikit-learn further extend Python's capabilities for ML tasks. In summary, both MATLAB and Python offer powerful tools for image analysis and ML tasks, empowering researchers and practitioners to develop sophisticated algorithms and applications for diverse domains.

  
SIGNATURE OF THE STAFF

  
HOD - ECE



# CERTIFICATE of Completion



PROUDLY PRESENTED TO

*Mrs. Suma Santosh*

From the department of Electronics & Communication Engineering, KSIT, BANGALORE, for successfully completing the Faculty Development Programme on Artificial Intelligence and Machine Learning for Image Analysis - Matlab & Python Perspective organized by the Department of Electronics and Communication Engineering, CMR Institute of Technology, Bengaluru from 08-05-2023 to 13-05-2023.

*R. Elumalai*

Dr. R. Elumalai  
HOD department of ECE CMRIT

*K. Venkateswaran K*

Dr. Venkateswaran K  
Convenor

*Sanjay*

Dr. Sanjay Jain  
Principal, CMRIT



# CERTIFICATE of Completion



PROUDLY PRESENTED TO

*Mrs. Bhanumathi A*

From the department of Electronics & Communication Engineering, KSIT, BENGALURU, for successfully completing the Faculty Development Programme on Artificial Intelligence and Machine Learning for Image Analysis - Matlab & Python Perspective organized by the Department of Electronics and Communication Engineering, CMR Institute of Technology, Bengaluru from 08-05-2023 to 13-05-2023.

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Dr. R. Elumalai  
HOD department of ECE CMRIT

*K. Venkateswaran K*

Dr. Venkateswaran K  
Convenor

*Sanjay*

Dr. Sanjay Jain  
Principal, CMRIT



# CERTIFICATE of Completion



PROUDLY PRESENTED TO

*Mrs. Anita P*

From the department of Electronics & Communication Engineering, KSIT, BANGALORE, for successfully completing the Faculty Development Programme on Artificial Intelligence and Machine Learning for Image Analysis - Matlab & Python Perspective organized by the Department of Electronics and Communication Engineering, CMR Institute of Technology, Bengaluru from 08-05-2023 to 13-05-2023.

*R. Elumalai*

Dr. R. Elumalai  
HOD department of ECE CMRIT

*K. Venkateswaran K*

Dr. Venkateswaran K  
Convenor

*Sanjay*

Dr. Sanjay Jain  
Principal, CMRIT



# CERTIFICATE of Completion



PROUDLY PRESENTED TO

*Mrs. Kavya B M*

From the department of Electronics & Communication Engineering, KSIT, BANGALORE, for successfully completing the Faculty Development Programme on Artificial Intelligence and Machine Learning for Image Analysis - Matlab & Python Perspective organized by the Department of Electronics and Communication Engineering, CMR Institute of Technology, Bengaluru from 08-05-2023 to 13-05-2023.

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Dr. R. Elumalai  
HOD department of ECE CMRIT

*K. Venkateswaran*

Dr. Venkateswaran K  
Convenor

*Sanjay*

Dr. Sanjay Jain  
Principal, CMRIT





# K. S. INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

**Faculty Name:** Mr. Saleem S Tevaramani

FDP on Exploring the scope of Engineering Mathematics in Control system and signal Processing

Organized by VIT Chennai

**Duration:** 12-5-2023 to 16-6-2023

<p><b>ABOUT VIT AND SCHOOL OF ELECTRONICS ENGINEERING (SENSE)</b></p> <p>Vellore Institute of Technology (VIT), India,</p> <ul style="list-style-type: none"><li>➤ Engineering and Technology subject areas of VIT are the 346<sup>th</sup> best in the World and the 9<sup>th</sup> best in India as per QS World University Rankings by Subject 2022.</li><li>➤ NAAC Accreditation with A++ grade in the 4<sup>th</sup> cycle.</li><li>➤ Ranked among the top 900 Universities of the world, including the Top 10 and the only private institution of India (Shanghai ARWU Ranking 2021)</li><li>➤ The 12<sup>th</sup> best institution of India in Research and Engineering categories (NIRF Ranking, Govt. of India 2021)</li><li>➤ Ranked within the top 200 in Asia (QS - Asia University Rankings 2022)</li><li>➤ The School of Electronic Engineering (SENSE) of VIT Chennai was established in 2010 when this campus was set up at Chennai. The School offers two B.Tech programmes, one in Electronics and Communication Engineering and the other in Electronics and Computer Engineering. It also offers two MTech programmes, one in Embedded Systems and the other in VLSI Design. In addition, Ph.D. research programme is offered in the areas of Electronics, Communication and Computer Engineering and their allied fields.</li></ul> <p><b>HIGHLIGHTS OF THE PROGRAMME</b></p> <div style="border: 1px solid black; padding: 5px;"><ul style="list-style-type: none"><li>➤ Mathematical analysis of stability of PID controller</li><li>➤ Mathematical modeling of transportation system</li><li>➤ Mathematical modeling of Control Systems</li><li>➤ Propagation of different types of elastic waves in solid medium</li><li>➤ Station-Keeping strategies about libration point orbits</li></ul></div>	 <p><b>VIT</b> Vellore Institute of Technology <small>(Founded in 1984 and re-accredited in 2012, 2015, 2018)</small> CHENNAI</p> <p><b>A FIVE-DAY ONLINE FACULTY DEVELOPMENT PROGRAMME ON</b></p> <p><i>“Exploring the scope of Engineering Mathematics in Control system and Signal Processing”</i></p> <p><b>12<sup>th</sup>- 16<sup>th</sup> June 2023</b></p> <p><b>Organised by</b> School of Electronic Engineering (SENSE), Vellore Institute of Technology, Chennai, And School of Advanced Sciences (SAS), Vellore Institute of Technology, Chennai.</p> <p><b>Organisers:</b></p> <p><b>Dr. Sourabh Paul</b> Assistant Professor Sr. Grade-2, SENSE, VIT Chennai, Mobile: 9337218075, E-mail: <a href="mailto:sourabh.paul@vit.ac.in">sourabh.paul@vit.ac.in</a></p> <p><b>Dr. Amit Kumar Rahul</b> Assistant Professor Grade-1, SAS, VIT Chennai, Mobile: 8004144966, E-mail: <a href="mailto:amitkumar.rahul@vit.ac.in">amitkumar.rahul@vit.ac.in</a></p>
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## About FDP:

Exploring the scope of engineering mathematics in control systems and signal processing reveals a rich intersection where theoretical concepts translate into practical applications. Engineering mathematics forms the foundation for modelling dynamic systems, utilizing tools such as differential equations, linear algebra, and calculus. These equations represent



system behaviour, aiding in the analysis and design of feedback control systems. Mathematical techniques like Laplace transforms and state-space representation are instrumental in stability analysis and controller design. Signal processing heavily relies on mathematical tools for signal analysis, manipulation, and interpretation. Fourier analysis, convolution, and transforms such as Fourier and Z-transforms are fundamental in signal processing applications, including filter design and modulation schemes. Control system stability is assessed using mathematical techniques like eigenvalue analysis, root locus, and frequency domain analysis. Optimization methods are employed for system performance optimization, utilizing techniques like optimization algorithms and convex optimization. Feedback control theory relies on mathematical analysis of feedback loops, stability criteria, and controller design methodologies. Engineering mathematics continues to drive innovation in emerging technologies, including machine learning and artificial intelligence, enabling advancements in pattern recognition and autonomous systems. Engineering mathematics serves as the cornerstone for understanding, analysing, and designing control systems and signal processing algorithms, facilitating technological innovation across diverse fields.



Signature of the staff



HOD - ECE





# VIT<sup>®</sup>

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

CHENNAI



## Certificate of Participation

This is to certify that Dr./Prof.Mr./Ms. .... *Mr. SALEEM S. TEVARAMANI* .....of  
..... *KSIT* .....has  
participated in the 5-day FDP “**Exploring the Scope of Engineering Mathematics in Control System and Signal Processing**” organised by School of Electronics Engineering (SENSE) from 12<sup>th</sup> to 16<sup>th</sup> June 2023 at Vellore Institute of Technology, Chennai.

*Sourabh Paul*

**Dr. Sourabh Paul**

Coordinator

*Amit Kumar Rahul*

**Dr. Amit Kumar Rahul**

Coordinator

*Susan Elias*

**Dr. Susan Elias**

Dean-SENSE

VIT – A place to learn; A chance to grow



# K. S. INSTITUTE OF TECHNOLOGY

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### 5 Day FDP on the theme “Inculcating Universal Human Values in Technical Education”

**Date and Time of FDP:** 1<sup>st</sup> May to 5<sup>th</sup> May 2023

**Organized by:** All India Council for Technical Education (AICTE)

**Through:** Online

**Scope and Objectives:** This workshop is about living with fulfilment in our practical day-to-day life. Education is expected to facilitate this aspiration by helping the student to develop a holistic world view as well as the practical skills for living with fulfilment, i.e., living in harmony as an individual as well as with family, society and the natural environment.

#### Day 1: Introduction for value education

Need for Value Education

Content of Value Education: The value of an entity is its participation in the larger order of which it is a part. The context is always the larger order. Value has to do with the participation of a unit in the larger order. E.g. a piece of chalk is a unit. The classroom is the larger order for this unit. The value of chalk is that it can be used to write on the blackboard for the desired functioning of the classroom.



#### Understanding Natural Acceptance – the basis for Right Understanding

Right understanding obtained through self-exploration can be recognised as follows:

- It is assuring
- It is satisfying
- It is universal

Self-exploration is a process of seeing the reality on our own right, by our own investigation, observation and analysis. It is a process of dialogue between “what I am” and “what is naturally acceptable to me”. It includes verifying the proposals on the basis of natural acceptance (which is not the same as acceptance) and validating experientially in living.

## **Exploring the Meaning of Happiness and Prosperity**

Happiness is to be in a state of harmony. The expanse of our living is at four levels (individual human being, family, society and nature/existence), and thus the program for continuity of happiness is to be in harmony at all these levels. Prosperity is the feeling of having more than required physical facility.

### **Day 2 : Understanding the Human Being (As Co-existence of Self and Body)**

#### **The Needs of the Self and the Body**

The need of the Self is happiness (e.g. feeling of respect leading to happiness) while the need of the Body is physical facility (e.g. food). All the needs related to the Self are continuous in time while all the needs related to the Body are required for a limited time. This is one way we can differentiate between the need of the Self and the need of the Body.

#### The Activities of the Self and the Body

The Self has the activity of desire, thought and expectation which are continuous. On the other hand, any activity of the Body, like eating, walking, etc. is temporary in time.

#### The Response of the Self and the Body

The response of the Body is based on recognizing and fulfilling whereas the response of the Self is based on knowing, assuming, recognizing and fulfilling. The recognition and fulfilment of the Body is definite, while that of Self is determined by the activity of assuming. As assumption changes, the recognition and fulfilment by the Self also changes. The conduct of the human being basically depends

upon the response of the Self, as all decisions are made by the Self. Only with the assumptions set right,

i.e. assuming based on knowing (which is definite), can recognising and fulfilling be set right; and only

then, the conduct can become definite.

### **Day 3: Understanding Harmony in the Family**

#### Feeling of Relationship as the Basis for Harmony in the Family

The harmony in the family has primarily to do with the fulfilment of relationship between one human being and the other human being. In order to fulfil relationship, it is necessary to understand relationship.

Feelings (values) in relationship:

1. Trust (foundation value)
2. Respect
3. Affection
4. Care
5. Guidance
6. Reverence
7. Glory
8. Gratitude
9. Love (complete value)

Relationship already exists – we don't have to create it; rather we only have to recognise and fulfil it. The family is the basic unit of human-human interaction. The basic issue in family is that of relationship. In relationship, there are nine feelings (values) that can be clearly understood and lived with. There is harmony in the family, mutual happiness in the family, when we understand the feelings and ensure in our living.

Respect is right evaluation at the level of the Self. The complete content of respect is to see that the other is similar to me in terms of purpose, programme and potential; and we are complementary to each

other in terms of competence. Over evaluation, under/otherwise evaluation and discrimination are disrespect.

The other feelings in relationship include affection, care, guidance, reverence, glory, gratitude and love. Love is the feeling of acceptance of all; it is the complete value. Justice is ensuring these feelings in oneself and expressing them to the other, leading to mutual happiness. Justice begins from family and extends to the world family, leading to undivided society.

#### **Day 4: Understanding Harmony in the Society**

Education is to develop right understanding of the harmony at all levels of being – from self to the entire

existence (individual, family, society, and nature/existence). And Sanskar is to develop the basic acceptances of the harmony at various levels.


At the level of society, the human goal is right understanding and right feeling (happiness) in every individual, prosperity in every family, fearlessness (trust) in society and co-existence (mutual fulfilment) in nature/existence. This goal is fulfilled by human order, i.e. systems for education-sanskar, health-self regulation, production-work, justice-preservation and exchange-storage. These systems start with the family order, and are interconnected right up to world family order, leading to universal human order. The natural process of development of a child in an environment of relationship needs to be understood and fulfilled so that the child grows into a human being who can have the competence to participate in the universal human order.


#### **Day 5 :Understanding Harmony in the Nature and Existence**

Existence is co-existence, which is in the form of units submerged in space. Units are energised, they are self-organised and they recognise their relationship with other units and participate with them in a mutually fulfilling manner (except for human beings without right understanding).

Existence is co-existence, and the role of human being is to realise co-existence in the Self and live in co-existence in nature/existence, extending up to universal human order. In this way, the unfolding of the co-existence will be completed through human being – resulting into universal order:

#### **Report Submitted By**

  
**Shruthi V. Joshi**  
Associate Professor  
Department of ECE , KSIT

  
**Dr. P N Sudha**  
Professor & Head  
Department of ECE, KSIT





# Bangalore Institute of Technology

(Affiliated to VTU, Belagavi, Approved by AICTE New Delhi)  
Accredited by NAAC with "A+" Grade and NBA



## *Certificate of Participation*

This is to Certify that Dr./Mr./Mrs./Ms. **SHRUTI V JOSHI, KSIT bangalore** Has Participated in the Five Day's Virtual Faculty Development Programme "Electrical Vehicle Technologies-A Future Transportation Tool" organised by Department of Electrical and Electronics Engineering from 28/11/2022 to 02/12/2022.

**Mr. Akshay Kumar D**  
Co-ordinator

**Mr. Suresh H**  
Co-ordinator

**Dr. Sudha G**  
HOD

**Dr. J Prakash**  
Vice Principal

**Dr. Aswath M U**  
Principal



# K. S. INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION  
ENGINEERING

**Faculty Name:** Mrs.Ramya K R

FDP on Electrical Vehicle Technologies -A Future Transportation Tool

Organized by BIT, Bangaluru

**Duration:** 28-11-2022 to 2-12-2022

## Chief Patrons

**Shri C N Balakrishna**

President, Rajaya Vokkaligara Sangha

**Dr.Renukprasad K V**

Vice President, Rajaya Vokkaligara Sangha

**Shri D Hanumanthaiah**

Vice President, Rajaya Vokkaligara Sangha

**Shri T Konappa Reddy**

General Secretary, Rajaya Vokkaligara Sangha

**Shri R Prakash**

Treasurer, Rajaya Vokkaligara Sangha

**Shri M Puttaswamy**

Chairman Governing Council, BIT

## Patrons

**Dr Aswath M U**

Principal, BIT

**Dr J Prakash**

Vice Principal, BIT

## FDP Co-ordinator

**Prof. Suresh H**

Assistant Professor, Department of EEE

Mob: 9986040846

**Prof. Akshay Kumar D**

Assistant Professor, Department of EEE

Mob: 9901963972

email:akshay.boregowda633@gmail.com

## Program Co-ordinator

**Dr G Sudha**

Associate Professor & HOD

Department of EEE

## Advisory Committee

**Dr P Pramila**

Professor, Department of EEE

**Dr H B Nagesh**

Professor, Department of EEE

**Dr Swarnalatha S**

Associate Professor, Department of EEE

**Prof. Suman A H**

Associate Professor, Department of EEE

## Organizing Committee

**Prof. Lakshmi R**

Assistant Professor, Department of EEE

**Prof. C P Harshavardhan**

Assistant Professor, Department of EEE

**Prof. Asha R**

Assistant Professor, Department of EEE

**Prof. Nakshatra Shankar**

Assistant Professor, Department of EEE

**Prof. Anupama H**

Assistant Professor, Department of EEE



Bangalore Institute of Technology  
(Technology for Prosperity)  
(Accredited by NACC with "A+" Grade)

Five Day's Online Faculty Development

Programme on

"Electrical Vehicle Technologies-  
A Future Transportation Tool"

28/11/2022 to 02/12/2022



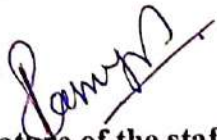
Organized by  
Department of Electrical  
&  
Electronics Engineering  
(Accredited by NBA)

## About FDP:

Electric vehicle (EV) technology is poised to revolutionize transportation, offering a sustainable alternative to fossil fuel-powered vehicles. EVs utilize rechargeable batteries, producing zero emissions and reducing air pollution. Advances in battery tech have led to longer ranges and competitive performance. Charging infrastructure is expanding rapidly, with home, workplace, and public charging networks being developed. Government incentives are driving consumer adoption. Range anxiety is being addressed through battery



advancements. EVs contribute to grid stability through vehicle-to-grid (V2G) technology. Autonomous features enhance safety and convenience. They offer quieter operation and lower operating costs. Shared mobility services, such as electric ride-hailing, are expanding. The electrification of transportation plays a crucial role in mitigating climate change and reducing dependence on imported oil. EVs are driving innovation in materials science and manufacturing processes. Solid-state batteries promise further improvements. Fleet electrification and urban planning initiatives integrate EVs into transportation systems. Battery swapping offers quick alternatives to traditional charging. Incentives include tax credits and preferential parking. Continued investment in EV technology and infrastructure is essential for a sustainable transportation future.



Signature of the staff



HOD - ECE





**Muthoot  
Institute of Technology & Science**

ERNAKULAM, KERALA

Approved by AICTE and affiliated to APJ Abdul Kalam Technological University

**DEPARTMENT OF ELECTRICAL & ELECTRONICS  
CERTIFICATE OF PARTICIPATION**


*This is to certify that*

**Ramya K R**

**K S INSTITUTE OF TECHNOLOGY , BENGALURU**

has successfully completed the National Level Faculty Development Programme  
on "Emerging Trends in Power, Energy and Control" conducted by the  
Department of Electrical & Electronics Engineering on 22<sup>nd</sup> - 27<sup>th</sup> August, 2022.

  
Dr. JANI DAS  
CONVENER

  
Prof. NEELAKANTAN.P.C  
PRINCIPAL

  
Ms. BREEZA PAULOSE  
PROGRAM COORDINATOR





KAMMAVARISANGHAM

# K.S. INSTITUTE OF TECHNOLOGY

(APPROVED BY A.I.C.T.E AFFILIATED TO VTU BELGAUM)



#14, RAGHUVANAHALLI, KANAKAPURAMAINROAD, BANGALORE-560109

## FDP REPORT

**Faculty Name:** Dr. P N SUDHA, Mrs. SANGEETHA V, Mrs. BHARGAVI ANANTH

**FDP Topic:** The Challenges and Opportunities for Women in Science, Technology, Engineering and Management (STEM)

**Date and Place:** 17/10/2022 – 22/10/2022, KSSEM (Department of Civil Engineering) Bangalore (HYBRID MODE)

### Resource Persons:

**Sailaja P** Vice President, Customer Delivery Head - Banking, TCS- Financial Solutions .

**R. Sobha Rtd** PCCF & Head of Forest Force, Telangana Advisor, Govt of Telangana- Forestry Affairs

**Sajit T C** CHRO- BIAL & Board Director- KIAF

**Dr. Alka Kulakarni** Registrar, D Y Patil University

**Anuradha S Prakash** Scientist , ISRO

**Dr. Pratima Khandelwal** Founder, Fly High (Educational Excellence Services), Bangalore

**M. r. Nagesh Ramamurthy** Practicing Consultant & Toast Master

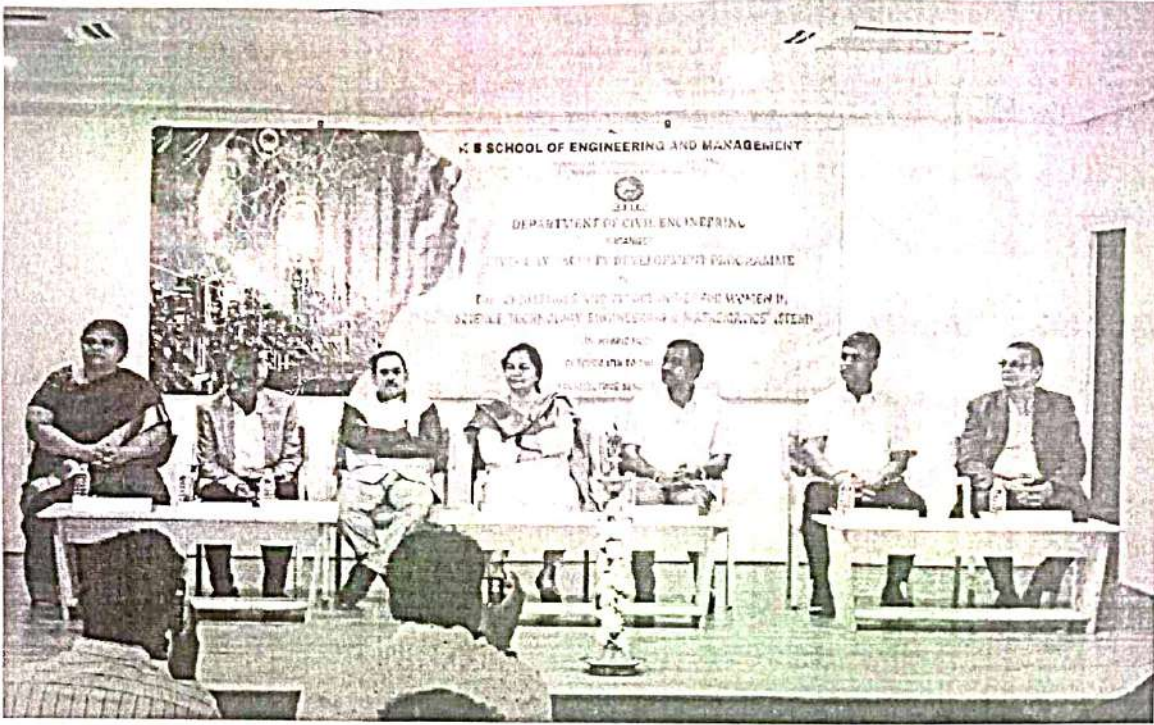
**Dr. Sapna Devendra** Regional Manager, Ambuja Cements


**Nandita Chakraborty** Quality Head, Namma Metro

**A. V. Vedavathi** Practicing Architect

The FDP threw light on the challenges faced by women in STEM and sensitized on the opportunities available for them. The speakers shared their experience with the audience on how to overcome the psychological and physiological barriers. This conference aimed at changing the mind-set of the policy makers, employers, colleagues, students and society at large. Gender equality will bring new perspective to the industry and provide better future for Indian women in STEM.

The FDP was very well planned. All the resource persons were knowledgeable. They gave insights into the opportunities women have in the field of science and technology. They even gave a lot of examples where women have changed the world with their smartness.



  
Signature of Faculties



  
Signature of HOD



**KSSEM**  
KAMMAVARI SANGHAM ENGINEERING MANAGEMENT

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(Approved by AICTE, Affiliated to VTU & Accredited by NAAC)  
#15, Mallasandra, Off. Kanakapura Road, Bangalore- 560109

## DEPARTMENT OF CIVIL ENGINEERING

This is to certify that

Mr/Ms

Dr. P.N. Sudha, Professor, HOD-ECE,  
KSIT

has participated as a delegate in the Five- Day Faculty Development Programme on The "Challenges and Opportunities for Women in Science, Technology, Engineering & Mathematics" (STEM) held between 17th to 21st of October 2022

*Intelle*

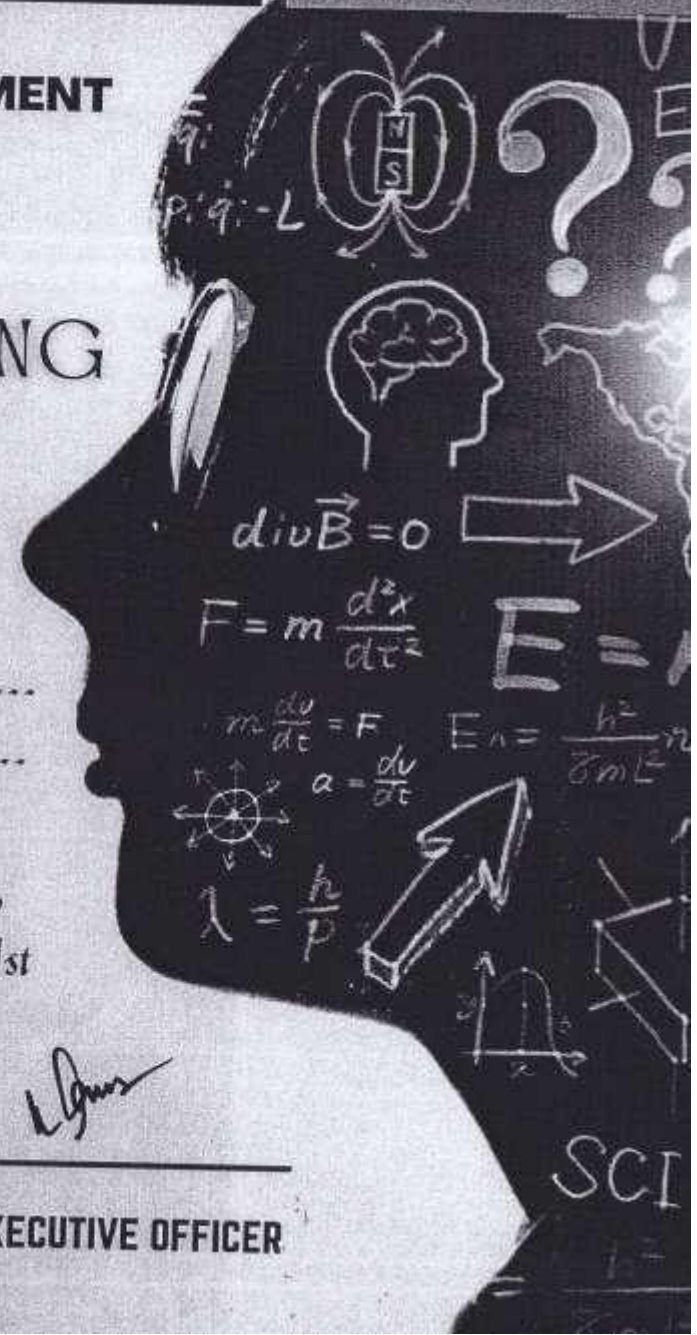
CONVENOR

*K. Rama*

PRINCIPAL

*[Signature]*

CHIEF EXECUTIVE OFFICER





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# DEPARTMENT OF CIVIL ENGINEERING

This is to certify that

Mr/Ms  
V. SANGEEETHA ASSISTANT PROFESSOR

KSIT

has participated as a delegate in the Five- Day Faculty Development Programme on The "Challenges and Opportunities for Women in Science, Technology, Engineering & Mathematics" (STEM) held between 17th to 21st of October 2022

M. Kelle

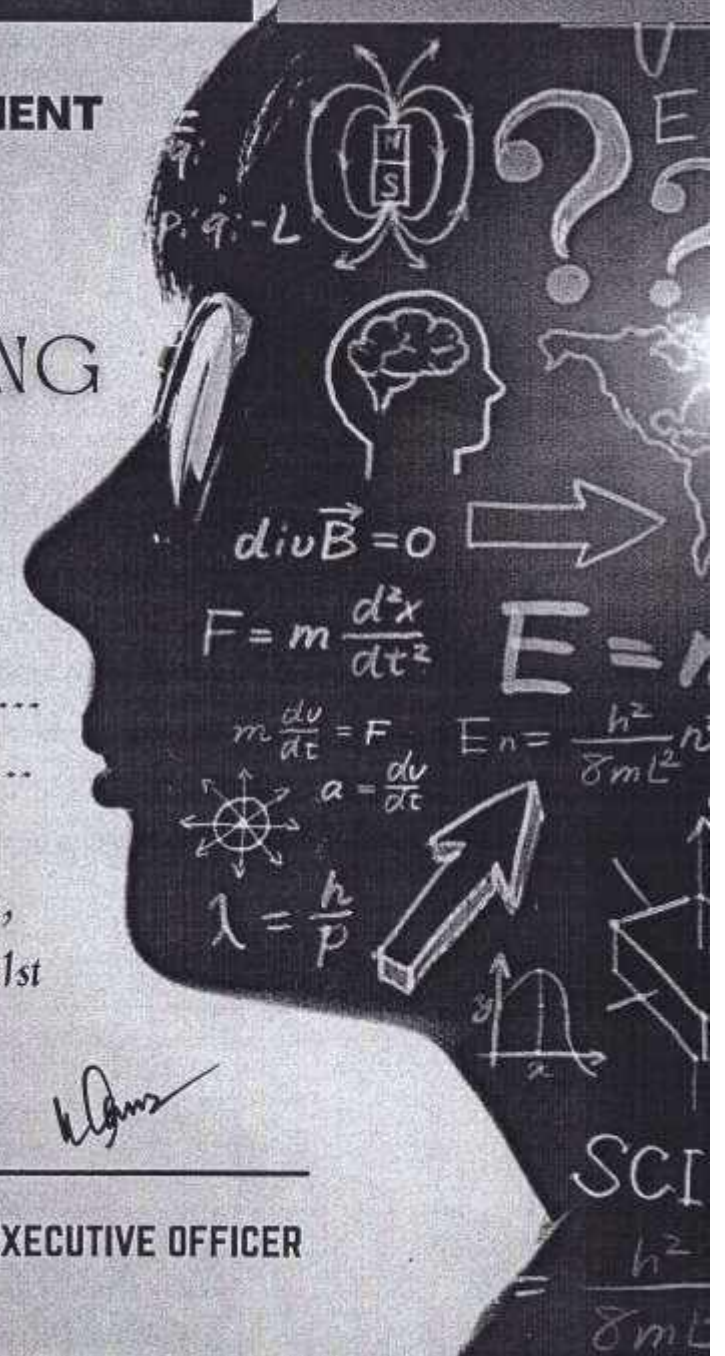
CONVENDOR

S. Kannaiah

PRINCIPAL

[Signature]

CHIEF EXECUTIVE OFFICER





**KSSEM**  
Kannada State Society of Engineering and Management

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### DEPARTMENT OF CIVIL ENGINEERING

This is to certify that

Mr/Ms

BHARGAVI ANANTH ASSISTANT PROFESSOR

KSIT

has participated as a delegate in the Five- Day Faculty Development Programme on The "Challenges and Opportunities for Women in Science, Technology, Engineering & Mathematics" (STEM) held between 17th to 21st of October 2022

W. Kelle

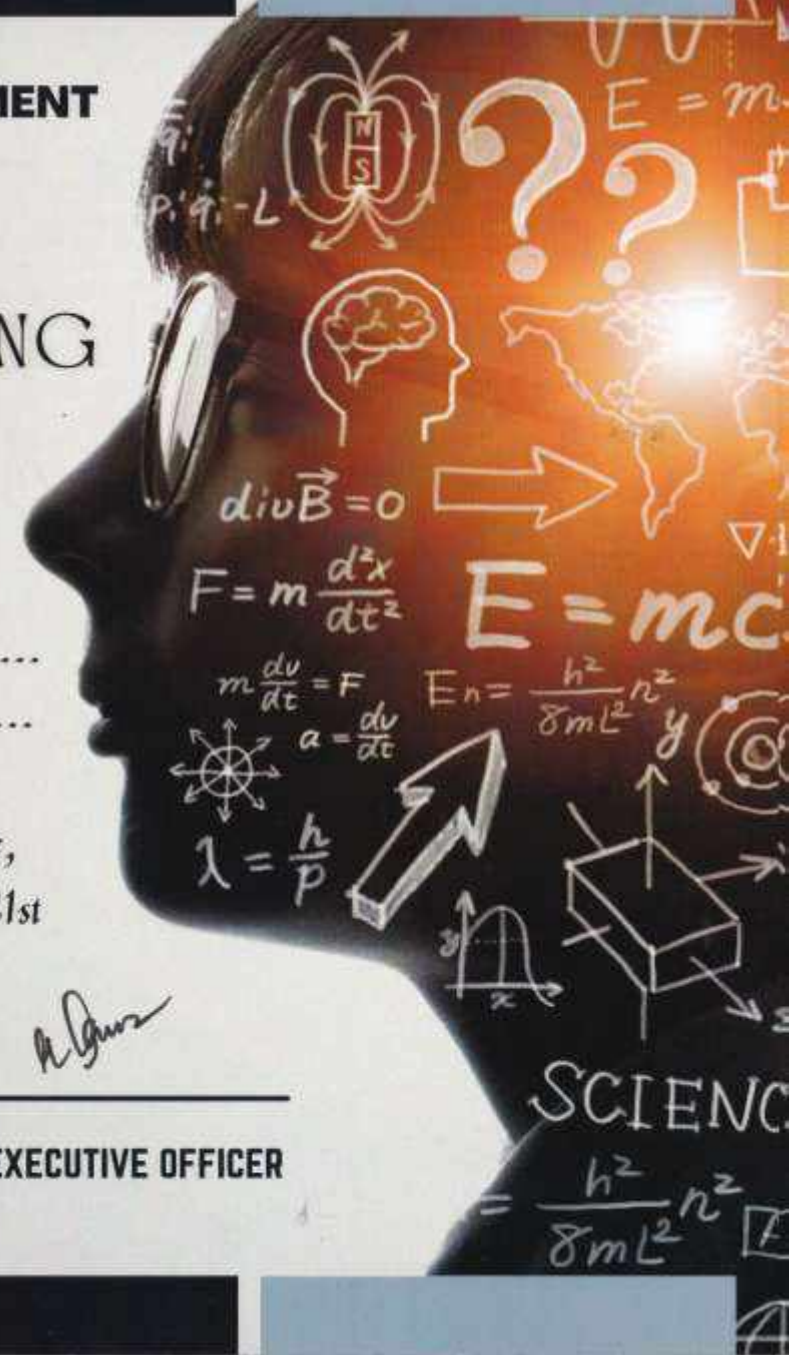
CONVENOR

K. Ramesh

PRINCIPAL

A. J. Kumar

CHIEF EXECUTIVE OFFICER



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE**  
**DEPARTMENT OF ECE**

Report on

**AICTE TRAINING AND LEARNING(ATAL) ACADEMY SPONSORED**  
**FACULTY DEVELOPMENT PROGRAM (10<sup>th</sup> - 21<sup>st</sup> OCTOBER 2022)**  
“Artificial Intelligence and Machine Learning Techniques for Precision Agriculture”

Organized by  
**JSS ACADEMY OF TECHNICAL EDUCATION, BENGALURU**

**Week 1 – Online (7:00 PM – 9:30 PM)**

**Platform: Zoom**

The Workshop started with Inauguration. The coordinator of workshop, Dr. Prabhdev Jagadish, Professor, JSSATE, Bengaluru welcomed the participants.

**10/10/2022 Monday**

**6.45 PM – 8.00 PM: Session 1: Disruptive Innovations in Precision Agriculture**

Dr. Adhinarayana, Professor, Centre of Studies in Resources Engineering, IIT Bombay

**11/10/2022 Tuesday**

**7:00 PM – 8.00 PM: Session 2: Introduction to AI and ML**

Dr. Millie Pant, Professor, Dept. of Applied Mathematics & Scientific Computing, IIT Roorkee

**12/10/2022 Wednesday**

**7:00 PM – 8.00 PM: Session 3: Stress, Mental Health, and Yoga**

Dr. Shivarama Varambally, Professor of Psychiatry & Head (I/c), Department of Integrative Medicine, NIMHANS, Bengaluru

**13/10/2022 Thursday**

**7:00 PM – 8.00 PM: Session 4: AutoML**

Dr. Manjunath S, Chief Engineer at Samsung Electro Mechanics, Bengaluru.

**14/10/2022 Friday**

**7:00 PM – 8.00 PM: Session 5: Precision Agriculture through Technology Innovation**

Dr. Siddeswara Guru, Director, Data Science at Terrestrial Ecosystem Research Network, University of Melbourne

**15/10/2022 Saturday**

**7:00 PM – 8.00 PM: Session 6: Sensors and Irrigation Automation**

Dr. Jitendra Kumar, Scientist (Land and Water Management Engineering), ICAR-VPKAS, Uttarakhand

**Week 2 – Offline (9.30 AM – 5:00 PM)**

**Venue: JSSATE, Bengaluru**

**17/10/2022 Monday**

**10:00 AM – 11.00 AM: Inauguration**

Dr. Jitendra Kumar, Scientist (Land and Water Management Engineering), ICAR-VPKAS, Uttarakhand

**11:30 AM – 4.00 PM: IoT for Agricultural Applications**

Dr. Sreenivasa Setty, Chief Technical officer, SST Technologies, Bengaluru

- Topics Discussed: Hands on Node MCU , LED sensor, Blynk

**18/10/2022 Tuesday**

**9:00 AM – 5.00 PM: Visit to University of Agriculture, GKVK, Bengaluru**

The visit to University of Agriculture, GKVK, Bengaluru had been organized as part of the ATAL faculty development programme on 18/10/2022 to understand the precision agriculture. Dr. Prabhudev Jagadeesh and Dr. Pradeep H K were the coordinators of the industrial visit.



## About GKVK

The University began its academic activities by offering in degree programs in Agriculture and Veterinary disciplines. The University of Agricultural Sciences-Bangalore (UAS-B) was the first State Agricultural University (SAU) in Karnataka established in 1963 through an act of the Legislature of the then Mysore State. UAS is renowned for basic interventions like improved varieties, better crop nutrition and improved agronomic practices tailored to the respective agro-climatic zones.

We started travelling from the college campus at 9:50 am via college bus. Totally 40 participants took part in the visit. We reached the campus around 11:00 am. We met Dr. Darshan, assistant research engineer, post harvest research department who welcomed us and took us to the presentation.

### 1st Session:

The presentation began with the topic "Soilless farming". The presenter gave a brief note on soilless farming systems viz hydroponics, aquaponics and aeroponics.

In Hydroponics, the plants grow on a neutral, solid and inert substrate. This can include materials such as clay balls, sand or even rockwool. A nutrient-enriched aqueous solution provides the plants with the water, oxygen and minerals they need to grow.

Aquaponics, finally, refers to the combination of hydroponics and aquaculture (fish farming). When combined, these two techniques become complementary, allowing farmers to establish a loop that is almost closed, producing fish and plants.

Aeroponics is different from hydroponics in that it uses no substrate. The nutrient solution is permanently and directly sprayed onto the plants' roots.

She also elucidated that Soilless systems can also be useful in geographical areas where the soil is not fertile or there is no access to soil. These systems require less water than soil-based cultivation, which helps preserve this valuable resource. The installation of such systems is also an option in areas with limited access to water resources. A third important advantage is that these systems generate a higher yield compared with traditional agriculture. According to the FAO, the vegetable yield of soilless systems is 20 to 25% higher than in traditional systems, because the former confine the roots in smaller spaces, which means the number of plants per square metre is higher. Many topics were discussed as part of Soilless farming master class:

- Types of soilless agriculture, Nutrient film technique
- Deep water culture, Dutch bucket system
- Nft hydroponics, Aeroponics, Aquaponics
- ICPF model, Microponics, pH and TDS list
- Common indoor plant pests, Ways to fight
- Commercial aspects

### 2nd Session:

After the tea break, the next session started with the topic "Drone solution for agriculture". The next speaker explained the usage and necessity of drones in the agriculture industry. He illuminated on drones supplied by the company Beagle. The drone technology is increasingly available for use in various sectors of agriculture as well. Though the technology is still nascent in India, many companies are trying so that it is easily available to Indian farmers and ready to be used to increase efficiency in agricultural production. Advantages of Using Drones in Agriculture; Soil and field analysis, Crop monitoring, Plantation, Livestock management, Crop spraying, Check proper health, Avoid over use of chemicals, Prepare for weather glitches, Monitor growth, Geofencing. The use of drone technology in agriculture is here to stay. This emerging technology can help reduce time and increase the efficiencies of the farmers. The use of drones in the agricultural sector is only expected to rise as the industry matures, and so it is good to know how to use this technology judiciously. Mr. Abyas also gave insights on:

- Drone classification in India, Nano micra small medium large
- Who can fly the drone etc.

## Campus Tour:

After the lunch break, Dr. Darshan took us to visit all types of soilless farming systems viz hydroponics, aquaponics and aeroponics. We got to experience the farm growth by observing the various plantations. We also visited the research lab which had equipment related to farming such as grinders, sieving machines, different types of cutters, grain cleaners etc.

Later we left the campus with useful knowledge regarding various agricultural precisions. Thus, purpose of visit was served.

### 19/10/2022 Wednesday

10:00 AM – 12.00 AM: UAVs for Precision Agriculture

Dr. Omkar S N

Chief Research Scientist Department of Aerospace Engineering, IISc, Bengaluru

12:00 AM – 1.30 PM: Teaching Practice 1

2:00 PM – 4.30 PM: Reflection of Indian Values in Indigenous Agricultural Practices

Dr. Rajath Vasudevamurthy

BIMS College of Engineering, Bengaluru

### 20/10/2022 Thursday

10:00 AM – 12.00 AM: Implementation of Deep Learning based approaches for Classification of diseases in plant leaf

Dr. Manjunath S, Chief Engineer at Samsung Electro Mechanics, Bengaluru.

12:00 AM – 1.30 PM: Zero Programming tool for development of ML applications for agricultural predictions

Dr. Manjunath S, Chief Engineer at Samsung Electro Mechanics, Bengaluru

2:00 PM – 4.00 PM: General Aspects of NEP: Academic Point of View

Dr. D.S. Guru, Professor & Chairman, Dept. of Studies in Computer Science, University of Mysore

4:00 PM – 4.30 PM: Teaching Practice 2

8:00PM-10P.00PM: 2 Online Assessments

### 21/10/2022 Friday

10:00 AM – 12.00 AM: Demystifying Research Methodology

Dr. Mahanand B S

HOD, Information Science & Engineering, JSSSTU, Mysuru

Topics Discussed:

12:00 AM – 1.30 PM: Industrial visit report submission, 2 Research articles summary and outcomes report submission, reflection report submission

2:00 PM – 4.00 PM: Valedictory/Distribution of rewards

The FDP enabled the participants to learn the state-of-the-art research related to application of IoT, ML, AI in precision agriculture

Dr. B. Surekha

Professor

Dept. of ECE,

K. J. Somaiya Institute of Technology

HOD





## ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi – 110 070

### AICTE Training and Learning (ATAL) Academy

# *Certificate*

This is certified that **SUREKHA BORRA**, Professor of **K.S.INSTITUTE OF TECHNOLOGY** participated & completed successfully AICTE Training And Learning (ATAL) Academy Blended/Hybrid FDP on "Artificial Intelligence and Machine learning Techniques for Precision Agriculture" from 2022-10-10-2022-10-15 to 2022-10-17-2022-10-21 at **JSS ACADEMY OF TECHNICAL EDUCATION** .

Advisor-I, ATAL Academy  
Mamta Rani Agarwal



Coordinator



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**K. S. INSTITUTE OF TECHNOLOGY**

(Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi)

#14, Raghuvanahalli, Kanakapura Main Road, Bangalore - 560109

Tel : 080 - 28435722 / 24 Fax : +91-80-28435723 Email : principal.ksit@gmail.com Web : www.ksit.ac.in



**Faculty Development Program**

**on**

**Simulation of Electronics Circuits**

**using Multisim & LabVIEW Programming**

**and**

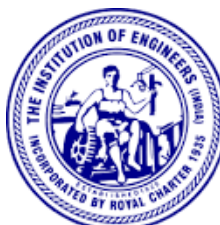
**Design & Analysis using VLSI Cadence Tool**

**Organized by**

**Department of ECE**

**In association with**

**IETE, ISTE and IE(I)**



**Date: 26<sup>th</sup> Sep 2022-30<sup>th</sup> Sep 2022**

**Timings: 9.00 am - 4.30 pm**

**Venue: VLSI Lab, DSP Lab, Old Building, KSIT**

**Conveners:**

**Dr. P. N. Sudha**

**Dr. Chanda V Reddy**




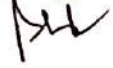

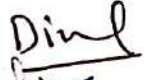







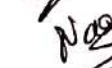



**K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

**FDP Title: Simulation of Electronic Circuits using Multisim & LABVIEW  
Programming and Design & Analysis using VLSI Cadence Tool**

**Organized by: Department of ECE, KSIT**

**Duration: 26-9-2022 to 30-9-2022**

The below mentioned faculty have attended and submitted the report as enclosed.

1. Dr. Chanda V Reddy 
2. Dr. B Sudarshan 
3. Dr Rekha N 
4. Dr Dinesh kumar D S 
5. Mr B R Santosh Kumar 
6. Dr. Devika B 
7. Mrs Vishalini Divakar 
8. Mr. Praveen A 
9. Mr Christo Jain 
10. Mrs. Pooja S 
11. Mr. Dinesh J 
12. Mrs. Thriveni C 
13. Mr. Nagraj D N 
14. Mrs. Gangalakshmi B 
15. Mrs. Shantha C 

  
HOD- ECE



FDP on “Simulation of Electronics Circuits using Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool” was organized by the Dept. of ECE, K.S. INSTITUTE OF TECHNOLOGY, Bengaluru in association with IETE, ISTE and IE (I) from 26<sup>th</sup> Sep 2022 to 30<sup>th</sup> Sep 2022.

## OBJECTIVES:

- To help faculty enhance their technical skills.
- To familiarize faculty with the Multisim electrical circuit simulation package to create simple schematics and perform basic simulations.
- To help faculty improve their modern tools usage skills.
- To help faculty explore the others work in their interested domains and help them evolve critical thinking.
- To help students faculty and exchange ideas.

## PROFILES OF RESOURCE PERSONS

### Day 1:Monday



*Mr. Navneet Krishna, Field Application Engineer, Entuple Technologies Pvt. Ltd. Completed his M.E in the year 2011 from KSR College of Technology, Thiruchengode, Tamilnadu. He has completed his B.E in the year 2007 from Jayaram College of Engineering and Technology, Thuraiyur, Tamilnadu. Later, Mr Navneet completed his VLSI Design Certification course from Pune University in the year 2008 and worked as a VLSI Trainer at Accel Technologies from 2008 – 2009. Has 10+ years of Teaching experience and has published a research article titled “Low Power Encoder for Flash ADC Architecture” in 3rd International Conference on “Computing for Sustainable Global Development”, which was conducted during 16th - 18th March, 2016 organized by Bharati Vidyapeeth Institute of Computer Applications and Management (BVICAM), New Delhi (INDIA)*

### Day 2: Tuesday



*Mr. Shivaprasad B K, Senior Field Application Engineer, Entuple Technologies Pvt. Ltd. Completed M.Tech from B.V. Bhoomaraddi College of Engineering and Technology, Hubli, in 2014 , with VLSI Design and Testing as his specialization. He completed Bachelor of Engineering from SJM Institute of Technology, Chitradurga, in 2012. He worked as an Intern at ISRO Bangalore in the year 2014. He has 08+ years of experience in VLSI field. He is the Lifetime member of Indian Society for Technical Education (ISTE).*

### Day 3: Wednesday



*Mr. Bhaskar B, Assistant Professor, SJB Institute of Technology, Bangalore, has more than 20 years of experience. He has completed M.Tech in RV College of Engineering, Bangalore in 2007.His research expertise is in signal and image processing. He has filed 2 patents, out of which one is published and the other is under process. He has more than 16 quality journal papers. He is a member of IETE, ISTE and affiliated to IEEE.*

### Day 4 & Day 5: Thursday & Friday



*Dr.Ravikumar.A.V, is currently working as an Associate Professor and Chief coordinator LabVIEW Academy., SJBIT, Bagalore. He has 20 years of teaching experience and have received his PhD in “ Real-TimeObject Tracking System By Using LabVIEW”.HE is associated with many Professional Bodies like Indian Society For Technical Education (ISTE), Institute Of Engineers, International Association of Engineers (IAENG). He has published a book titled “Processing Digital Electronics and its Application with LabVI EW “He has filed one patent, received many research grants, and is actively involved in consultancy works. He has delivered more than 20 guest lectures at various faculty development programs and workshops. He has published 24 research articles in International Journals and has presented 15 papers in various International and national conferences.*

**EVENT:**

The FDP is organized with an objective to provide insights as how to use modern tools for simulation of electronic circuits. The FDP was inaugurated on 26th Sep 2022 at 10.00am in Seminar Hall, Ground Floor, New Building, KSIT. Mrs. Sangeetha V, Assistant Professor, Dept.of ECE, KSIT, Bangalore started the event by welcoming the Participants. Dr.Dilip Kumar K, Principal, KSIT welcomed the Dignitaries. Dr. PN Sudha, HoD, ECE Department briefed the importance of organizing the FDP. Sri. R Rajgopal Naidu, President, Kammavari Sangham delivered presidential address. Sri Leela Shankar Rao, Secretary Kammavari Sangham delivered keynote address. Dr.KVA Balaji, CEO, Kammavari sangham congratulated all the enrolled participants. Mr. Santhosh Kumar BR, Associate Professor, Dept. of ECE, delivered vote of thanks.



Ms. Sangeetha, Assistant Professor, Dept. of ECE inviting the Guests and Participants

Post Break, the first session started at 11 am in VLSI Lab, 2<sup>nd</sup> Floor, Old Building, KSIT. Dr.Surekha Borra, Professor, Dept. of ECE introduced the Resource Person *Mr. Navneet Krishna, Field Application Engineer, Entuple Technologies Pvt. Ltd.*

Day 1: 26<sup>th</sup> September 2022

VLSI Lab using Cadence tool:

Topics Covered:

1. Design of UART and set the constraints to obtain optimum gate level netlist.
2. Physical Design for the synthesized netlist of a Digital Circuit.
3. Analysis of Two stage of OPAMP and its Layout verification.

## Outcomes of the event:

- Participants were trained to use CADENCE Tools for analog and digital design of circuits
  - Latest Advancements in VLSI Industry
  - Full Custom Design Flow with Analog circuit as an example Schematic Entry,
  - Spice Models, Simulation Analysis and Measurement of Operation Point
  - Analysis Transient and Power Analysis
  - Layout entry Floor planning, Placement, Routing
  - Post layout simulation
- Participants got awareness of using modern simulation tools.
- Provided practical exposure and equipped the faculty members in designing, building, and debugging analog and digital circuits using simulation tools.
- Provided a platform to the faculty members to upgrade their knowledge.
- Participants used Multisim simulation tool for the verification of electronic circuits.
- Participants used Lab VIEW graphical programming environment to develop the research, validation, and production.
- Participants designed and analyzed UART and two stage OPAMP with its post layout simulation.

## Program Outcome

Participants got opportunity to learn using various simulation tools.

## POs Mapping with Rank

FDP on	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Simulation of electronic circuit	3	3	3	2	3	-	-	-	1	-	-	2

**PO1:** Applied the knowledge of mathematics, engineering fundamentals, and engineering specialization to the solution of complex engineering problems

**PO2:** Participants identified and analyzed engineering problems to arrive at substantiated conclusions.

**PO3:** Participants designed solutions for complex engineering problems and designed system components, processes to meet the specifications.

**PO4:** Participants used research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5:** Participants were trained on modern tools.

**PO9:** Participants practiced the modern tools individually.

**PO12:** Learning modern tools and using them for design helps the participants in their future as well

  
Coordinators

  
HOD

  
Principal





**KSIT**  
K. S. INSTITUTE OF TECHNOLOGY

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Tel : 28435722 / 724 E-mail : principal@ksit.edu.in Web : www.ksit.edu.in

## 5 Days Faculty Development Program

Organized by

Department of Electronics & Communication Engineering

in association with




## Certificate of Appreciation

This is to certify that <sup>✓</sup>Mr./Ms./ Dr. .... **CHANDA V REDDY**.....  
has officiated as **Convener** in the Five Days Faculty Development Program on "**Simulation of Electronic Circuits using Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool**"  
at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

  
**Dr. Dilip Kumar K**

Principal & Director  
K. S. Institute of Technology

  
**Dr. K. V. Balaji**

CEO  
K. S. group of Institution



**KSIT**  
K. S. INSTITUTE OF TECHNOLOGY

Kammavari Sangham(R)-1952

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Tel : 28435722 / 724 E-mail : principal@ksit.edu.in Web : www.ksit.edu.in

## 5 Days Faculty Development Program

Organized by

Department of Electronics & Communication Engineering

in association with



## Certificate of Participation

This is to certify that *Mr./Ms./Dr.* B. SUDARSHAN from KSIT.....  
has participated in the Five Days Faculty Development Program on "*Simulation of Electronic Circuits using Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool*"  
at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

**Dr. P. N. Sudha**

*Professor & Head, ECE Dept  
K. S. Institute of Technology*

**Dr. Dilip Kumar K**

*Principal & Director  
K. S. Institute of Technology*



**KSIT**  
K. S. INSTITUTE OF TECHNOLOGY

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# K. S. INSTITUTE OF TECHNOLOGY

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#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-560109

Tel : 28435722 / 724 E-mail : principal@ksit.edu.in Web : www.ksit.edu.in

## 5 Days Faculty Development Program

Organized by

Department of Electronics & Communication Engineering

in association with



## Certificate of Participation

This is to certify that Mr./Ms./Dr. REKHA N from KSIT  
has participated in the Five Days Faculty Development Program on "Simulation of Electronic Circuits using  
Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool"  
at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

**Dr. P. N. Sudha**

Professor & Head, ECE Dept  
K. S. Institute of Technology

**Dr. Dilip Kumar K**

Principal & Director  
K. S. Institute of Technology



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## Certificate of Appreciation

This is to certify that ~~Mr./Ms./~~ Dr. D.S. Dinesh Kumar.

has officiated as **Coordinator** in the Five Days Faculty Development Program on "**Simulation of Electronic Circuits using Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool**" at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

**Dr. P. N. Sudha**  
Professor & Head, ECE Dept  
K. S. Institute of Technology

**Dr. Dilip Kumar K**  
Principal & Director  
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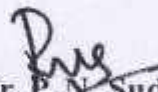
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## Certificate of Participation

This is to certify that Mr./Ms./Dr. **SANTHOSH KUMAR BR** from **KSIT**.....  
has participated in the Five Days Faculty Development Program on "Simulation of Electronic Circuits using  
Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool"  
at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

  
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has participated in the Five Days Faculty Development Program on "*Simulation of Electronic Circuits using Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool*"  
at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

**Dr. P. N. Sudha**

Professor & Head, ECE Dept  
K. S. Institute of Technology

**Dr. Dilip Kumar K**

Principal & Director  
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This is to certify that *Mr./Ms./Dr.* **VISHALINI D**.....from.....**KSIT**.....  
has participated in the Five Days Faculty Development Program on “Simulation of Electronic Circuits using Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool”  
at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

**Dr. P. N. Sudha**  
Professor & Head, ECE Dept  
K. S. Institute of Technology

**Dr. Dilip Kumar K**  
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This is to certify that Mr./Ms./Dr. **PRAVEEN A** ..... from **KSIT** .....  
has participated in the Five Days Faculty Development Program on "Simulation of Electronic Circuits using  
Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool"  
at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

**Dr. P. N. Sudha**  
Professor & Head, ECE Dept  
K. S. Institute of Technology

**Dr. Dilip Kumar K**  
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has participated in the Five Days Faculty Development Program on "Simulation of Electronic Circuits using  
Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool"  
at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

**Dr. P. N. Sudha**  
Professor & Head, ECE Dept  
K. S. Institute of Technology

**Dr. Dilip Kumar K**  
Principal & Director  
K. S. Institute of Technology



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at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

**Dr. P. N. Sudha**  
Professor & Head, ECE Dept  
K. S. Institute of Technology

**Dr. Dilip Kumar K**  
Principal & Director  
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## Certificate of Participation

This is to certify that Mr./Ms./Dr. DINESH J from KSIT

has participated in the Five Days Faculty Development Program on "Simulation of Electronic Circuits using Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool"

at K.S. Institute of Technology, Bengaluru during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

  
Dr. P. N. Srinivas  
Professor & Head, ECE Dept  
K. S. Institute of Technology

  
Dr. Dilip Kumar K  
Principal & Director  
K. S. Institute of Technology



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## Certificate of Participation

This is to certify that Mr./Ms./Dr. THIRUVENI C from KSIT  
has participated in the Five Days Faculty Development Program on "Simulation of Electronic Circuits using  
Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool"  
at K.S. Institute of Technology, Bengaluru during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

  
Dr. P. Srinivas  
Professor & Head, ECE Dept  
K. S. Institute of Technology

  
Dr. Dilip Kumar K  
Principal & Director  
K. S. Institute of Technology



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## Certificate of Participation

This is to certify that Mr./Ms./Mr. NALARAJ DN from KSIT

has participated in the five days Faculty Development Program on "Simulation of Electronic Circuits using  
MATLAB & LabVIEW Programming and Design & Analysis using PSpice Cadence Tool"

at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

  
Dr. K. S. Narayana  
Professor & Head, ECE Dept  
K. S. Institute of Technology

  
Dr. D. S. Kumar  
Professor & Head  
K. S. Institute of Technology



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V.L. Rajagopal, Kannur, Kerala, India. Bangalore-560075

Tel: 08438722774, Fax: 08438722774, www.ksit.edu.in

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## Certificate of Participation

This is to certify that Ms. GANNA LAKSHMI B from KSIT

has participated in the Five Days Faculty Development Program on "Simulation of Electronic Circuits using Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool"

at K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

  
Dr. K. S. Kumar  
Professor & Head, ECE Dept.  
K. S. Institute of Technology

  
Dr. Dilip Kumar K  
Principal & Director  
K. S. Institute of Technology



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This is to certify that Mr./Ms./Dr. C SHANTHA from KSIT  
has participated in the Five Days Faculty Development Program on "Simulation of Electronic Circuits using  
Multisim & LabVIEW Programming and Design & Analysis using VLSI Cadence Tool"  
of K.S. Institute of Technology, Bangalore during 26<sup>th</sup> to 30<sup>th</sup> September 2022.

  
Dr. P. N. Srinivas  
Professor & Head, ECE Dept  
K. S. Institute of Technology

  
Dr. Dilip Kumar K  
Principal & Director  
K. S. Institute of Technology



# K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

DEPARTMENT OF MECHANICAL ENGINEERING

## REPORT OF FDP: Introduction to Python Programming & its applications

### Broucher

AICTE-VTU Joint Teachers Training Programme for AICTE Approved & VTU Affiliated Technical Institution Teachers

One Week Teachers Training Programme

On

“Introduction to Python Programming & Its Applications”

13<sup>th</sup> to 17<sup>th</sup> March 2023

REGISTRATION FORM

Name: \_\_\_\_\_

Mobile: \_\_\_\_\_

Email: \_\_\_\_\_

#### Declaration by the Applicant

If selected, I agree to abide by the rules and regulations of the training Programme of VTU-HRDC and shall attend all the sessions compulsorily.

Date: \_\_\_\_\_ Signature of the Applicant

Recommended and Forwarded

Signature of the Head of the Institution

#### CHIEF PATRON

**Dr. S Vidyashankar**  
Hon'ble Vice Chancellor, VTU, Belagavi

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Registrar, VTU, Belagavi

**Dr. T.N Sreenivasa**  
Registrar (Evaluation), VTU, Belagavi

**Smt. M. A. Sapna**  
Finance Officer, VTU, Belagavi

**Dr. Amit Kumar Srivastava**  
Director, FDC, AICTE, New Delhi

**Dr. H R Sudarshana Reddy**  
Regional Director (16), VTU Regional Office, Bengaluru & Coordinator, VTU CPQS, VIAT, Muddalahalli

#### University Coordinator

**Dr. N Chikkanna**  
Professor & Chairman, Dept. of Aerospace Engineering, VTU CPQS, VIAT, Muddalahalli

#### Programme Coordinator

**Dr. K Thippeswamy**  
Professor, Dept. of CSE, VTU PG Centre, Mysuru

#### ORGANISING COMMITTEE

Dr. Dasar Kumar, Professor & Chairman, Dept. of Applied Sciences  
Dr. T.T. Thimma, Professor & Programme Coordinator, Dept. of M.E. in Smart Cities  
Dr. Nithya Prasad H.P., Associate Professor & Programme Coordinator, Dept. of ME  
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Mr. Bhavanna G., Assistant Professor, Dept. of CSE  
Mr. Vidyaashankar H., Assistant Professor, Dept. of MBA  
Mr. Anand M. Rishat, Assistant Professor, Dept. of Aerospace Engineering

AICTE-VTU Joint Teachers Training Programme for AICTE Approved & VTU Affiliated Technical Institution Teachers

One Week Teachers Training Programme

On

“Introduction to Python Programming & Its Applications”

13<sup>th</sup> to 17<sup>th</sup> March 2023



Organized By:

VTU- Human Resource Development Cell (HRDC)  
Visvesvaraya Technological University  
Centre for Post Graduate Studies Bengaluru  
Region, Muddalahalli  
Chikkaballapur-562101

Venue: Online

Platform: Zoom App



#### About VTU

Visvesvaraya Technological University (VTU) named after Bharat Ratna Dr. Sir M. Visvesvaraya established on 1st April 1998, as per the VTU Act 1994 of the Government of Karnataka. University has been established by the Government of Karnataka in order to promote planned and sustainable development of technical education and has its Head Office located in Belagavi in the state of Karnataka. Reckoning the fact that, University is a seat of confluence of knowledge and as a technological University, Visvesvaraya Technological University does not restrict itself only to curricular activities but also emphasizes on the overall growth of knowledge in society and hence its campus in Belagavi is named as "Jnana Sangama". The University has jurisdiction over the whole state of Karnataka. VTU has established four regional centers at Bengaluru, Mysuru, Kalburgi and Belagavi for administrative convenience. VTU is one of the prestigious and largest technological Universities in the India having one Constituent College, 220 Engineering colleges and 20 Autonomous Colleges.

VTU is imparting technical education to more than a lakh students under its 35 Undergraduate & 94 Postgraduate Programmes. VTU is offering Doctoral Programmes in 865 departments in various affiliated Colleges which have been recognized as research centers. Around 5000 Research Scholars are pursuing for Doctoral and M.Sc. (Engineering) By Research Programmes. VTU has established full-pledged Centers for Post Graduate Studies at Muddenahalli, Kalburgi, Belagavi and Mysuru.

#### About AICTE, New Delhi

All India Council for Technical Education (AICTE) was set up in November 1945 as a national-level apex advisory body to conduct a survey on the facilities available for technical education and to promote development in the country in a coordinated and integrated manner. And to ensure the same, as stipulated in the National Policy of Education (1986), AICTE was vested with:

- Statutory authority for planning, formulation, and maintenance of norms & standards
- Quality assurance through accreditation
- Funding in priority areas, monitoring, and evaluation
- Maintaining parity of certification & awards.

#### About the VTU PG Centre, Muddenahalli

The Visvesvaraya Technological University, Post Graduate Center, Bengaluru Region, Muddenahalli has 200 acres campus located at Muddenahalli, Chikkaballapura (Dist). Muddenahalli is the birth place of great legend Bharata Rama Sir M. Visvesvaraya. It has all necessary infrastructure required for imparting quality education through its well-structured administrative and academic staff for overall development of student's personality. Center for PG Studies has five full time post graduate Programmes in M.Tech, MBA and MCA. All the departments have well qualified faculty.

#### PROGRAMME OBJECTIVES:

This Python Programming FDP leads faculty from the basics of writing and running Python scripts to more advanced features such as file operations, regular expressions, working with binary data, and using the extensive functionality of Python modules. Extra emphasis is placed on features unique to Python, such as tuples, array slices, and output formatting.

#### PREREQUISITES

Participants should already be comfortable using the operating system (Linux, Unix, Windows, Solaris, macOS, etc.) on which they will be running Python. While not mandatory, basic skills with at least one other programming language are desirable.

#### Advantages of this workshop of Python Programming:

There are a number of advantages when a Institute / College/ Faculty / Student chooses to be socially connect and responsible, such as:

- Master the fundamentals of writing Python scripts
- Learn core Python scripting elements such as variables and flow control structures
- Discover how to work with lists and sequence data
- Write Python functions to facilitate code reuse
- Use Python to read and write files
- Make their code robust by handling errors and exceptions properly
- Work with the Python standard library
- Explore Python's object-oriented features
- Search text using regular expressions

This workshop also summarizes the main points of the university defined syllabus titled "Introduction to Python Programming & Its Applications". It also functions as a platform for brainstorming, in-depth discussion, and clarifying the doubts of faculties who are willing to teach this course. This workshop helps all faculties and students to increase their understanding of Introduction to Python Programming, Practice sustainability and creativity, Showcase planning and organizational skills of all the stakeholders.

#### RESOURCE PERSONS:

Renowned Experts from reputed Institutions, Senior Faculties of VTU and Industry Experts.

#### Eligibility:

Teachers from AICTE Approved and VTU Affiliated Technical Institutes those who are interested in teaching the "Introduction to Python Programming" course.

#### Registration Fee:

No Registration Fee

#### How to Apply:

Registration through Google form link - <https://forms.gle/nw7OrN7ca4NDbF2UA>

#### Programme Timings (Each Day):

- (i) First session: 10.00 AM to 1.00 PM (3 hours)
- (ii) Lunch break: 1.00 PM to 1.30 PM
- (iii) Second session: 1.30 PM to 4.30 PM (3 hours)

#### Certificate:

The certificate of participation for the faculty who registers for the Programme shall be issued, provided they satisfy the attendance requirement of 80 % of the 10 sessions held during five days of the Programme and secure 60 % of the maximum marks (100) prescribed for formative evaluation and summative evaluation.

#### Contact for more information:

**Dr. K. Thippeswamy**  
Professor, Dept of CSE  
VTU PG Centre, Mysuru  
Mobile: 9448500224, 7019605611  
Email: thippeswamy@vtu.ac.in

## Report

### Faculty Development Program (FDP) Report

**Title:** Introduction to Python Programming & its Applications

**Date:** 13th – 17th March 2023

**Organized by:** Visvesvaraya Technological University, Centre for Post-Graduation Studies, VIAT, Muddenahalli, in association with AICTE.

**Program Coordinator:** Dr. Thippeswamy K

**VTU Coordinator, Professor & Chairman:** Dr. N. Chikkanna

**Registrar:** Dr. Rangaswamy B. E.

**Participant:** Mr. Ranganath N. of KSIT, **ANILKUMAR.A** of KSIT, **MANJUNATHA.B.R** of KSIT

### Summary:

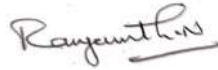
The AICTE-VTU Joint Teachers Training Programme on "Introduction to Python Programming & its applications" was a one-week course designed to advance the educational methodologies of teaching professionals in the field of programming. This program aimed to familiarize participants with Python, a versatile and powerful programming language increasingly in demand across various technological sectors. The FDP covered fundamental concepts as well as practical applications of Python, enabling educators to integrate contemporary programming curriculum into their teaching repertoire.

Over the course of the week, attendees were immersed in a combination of lectures, hands-on sessions, and project-based learning. The sessions were conducted by a team of experts who provided in-depth knowledge and addressed the evolving requirements of programming education. Participants were engaged in interactive discussions, group activities, and coding exercises that fostered a collaborative learning environment.

Mr. Ranganath N. of KSIT demonstrated commendable participation and successfully completed the training, as evidenced by the certification awarded. This accomplishment not only enhances their individual teaching toolkit but also contributes to the broader academic excellence of KSIT.

The program was concluded with a feedback session, where participants shared their experiences and insights, contributing to the continual improvement of future FDPs. The organizers and the institutional bodies expressed their appreciation to all contributors for making this FDP a constructive and enriching educational endeavor.

**SUBMITTED BY:**



**RANGANATH.N**



**ANILKUMAR.A**





*Manjunath*

MANJUNATHA.B.R



*(Signature)*  
 SIGNATURE OF HOD  
 Head of the Department  
 Dept. of Mechanical Engg.  
 K.S. Institute of Technology  
 Bengaluru - 560 109

*(Signature)*  
 SIGNATURE OF PRINCIPAL  
 PRINCIPAL  
 K.S. INSTITUTE OF TECHNOLOGY  
 BENGALURU - 560 109.



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KAMMAVARI SANGHAM (R) - 1952

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(Affiliated to VTU, Belagavi & Approved by AICTE, New Delhi)

#14, Raghuvanahalli, Kanakapura Main Road, Bangalore - 560109

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## 6 Days Faculty Development Program

on

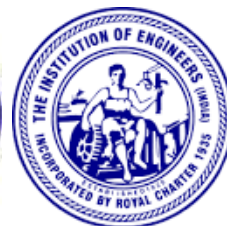
**"Python Programming and its Applications"**

Organized by

Department of ECE

In association with

IETE, IEEE, ISTE and IE(I)



Date: 27<sup>th</sup> March to 1<sup>st</sup> April 2023

Timings: 9.00 am - 4.00 pm

**Venue: CAD Lab, New Building, KSIT**

6 days FDP on “Python Programming and its Applications” was organized by the Dept. of ECE, K.S. Institute of Technology, Bengaluru in association with IETE, ISTE and IE (I) from 27<sup>th</sup> March 2022 to 1<sup>st</sup> April 2023.

## OBJECTIVES:

- To help faculty enhance their technical skills.
- To familiarize faculty with the Python language.
- To help faculty improve their modern tools usage skills.
- To help faculty explore the others work in their interested domains and help them evolve critical thinking.

## PROFILES OF RESOURCE PERSONS

Mr. Suresh Maha Rajashekar, is a seasoned technocrat with 25+ years of progressive experience in Technical training/mentoring, System Architecture/Software Development/Project Management & Validation with reputed organizations in different domains. He has done BTech(C&S) from Mysore university, MTech(C&S) from Bits Pilani and currently pursuing PhD in BCI Technology from VTU. He has Started his career with C-DOT (Center for Development of Telematics) - A premier Telecom R&D Center, Govt of India and then worked in MNCs, Texas Instruments (TI), Infineon & Intel. He has travelled all over the world, on different project assignments. He has 15+ years progressive hands-on experience in python and used python extensively on varied projects. Mr. Suresh is Currently working as a freelancer- Technical Training, Project Mentoring & Management.

Mr. Karthik Subramanya, An expert in Object Oriented Programming. He has pursued BTech from PES and MTech from AITC. Currently he is working in a Start up as a specialist in project based on OOPs.

## EVENT:

The FDP is organized with an objective to provide insights as how to use modern tools for simulation of electronic circuits. The FDP was inaugurated on 26th Sep 2022 at 10.00am in Seminar Hall, Ground Floor, New Building, KSIT. Mrs. Supritha Ganesh, Assistant Professor, Dept. of CSE, KSIT, Bangalore started the event by welcoming the Participants. Dr. Dilip Kumar K, Principal, KSIT welcomed the dignitaries. Dr. Chanda V Reddy, Professor of ECE & IQAC Coordinator briefed the importance of organizing the FDP. Dr. Rekha B Venkatapur introduced the chief guest Dr. C. P. Ravi Kumar. Later, the chief guest Dr. C. P. Ravi Kumar, Director of Talent Development, Texas Instruments addressed the gathering. Sri. R Rajgopal Naidu, President, Kammavari Sangham delivered presidential address. Sri Leela Shankar Rao, Secretary Kammavari Sangham delivered keynote address. Sri Nirajakshulu Naidu, Treasurer, Kammavari Sangham addressed the gathering and highlighted the importance of continuous learning. Dr. KVA Balaji, CEO, Kammavari sangham congratulated all the enrolled participants. Dr. PN Sudha, Professor & HoD, Dept. of ECE, delivered vote of thanks.



### Keynote Speech:

Post break, the keynote speech by Dr. C. P. Ravi Kumar, Director of Talent Development, Texas Instruments, India started at 11 am in Conference Hall, Ground Floor, New Building.

Topics Covered: Who should learn computer programming, essentials of programming, how is programming different today, constructs, significance of testing, File I/O, Libraries, challenges, grading.

#### Topics Covered:

- Python Features
- Applications
- Frameworks and Libraries
- How to execute Python
- Key words
- Indentation
- User input handling
- Numeric Operations
- Python Variables

#### Topics covered:

- Jupyter Notebook Installation
- Python Data Types: Int, float, complex numbers
- Conditional statements
- Loops
- Strings
- Miniprojects

Team No.	Name	Title
1	Mr Nagabushan A Mr. Prasad K Mr. Saleem S Tevaramani Mr. Praveen A Dr.Surekha B	Reading student details from the console and writing excel file
2	Dr Sudharshan Mrs. Srividya L Mr. Suresh Kumar A Mrs. Thriveni C Mrs. Bhargavi Anath	Traffic Light control using Python
3	Ramya T Rahul R P Vasanth kumar reddy Shreya H Shwetha	Digital thermometer with Arduino and LM335 temperature sensor

4	Abhishek J Ajay B G Akash M Chethan G G Bhavana Priyadarshini Gomitha R C Harshitha J Harini K	State Change Detector using Arduino Uno
5	Shakthi Anbazhagan M Darshan K S Arun Kumar B S Hemashree Hima Swetha S	Servomotor, Distance Measurement through Ultrasonics, Displaying Hello world through LCD Display

**Outcome of the event:**

- Participants were exposed to use Python tools, different libraries, and Python environment.
- Participants were familiar with basics of python such as lists, tuples, dictionaries, sets and functions
- Participants got awareness on Python based Industries.
- Provided practical exposure in building different algorithm for various applications.
- Participants used Python tool for Server application.
- Participants used Python program environment to develop projects and research.
- All the project groups exhibited their Projects.

**POs Mapping with Rank**

FDP on	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Python Programming and its applications	3	3	3	2	3	-	-	-	3	-	-	2

**PO1:** Applied the knowledge of mathematics, engineering fundamentals, and engineering specialization to the solution of complex engineering problems.

**PO2:** Participants identified and analysed engineering problems to arrive at substantiated conclusions.

**PO3:** Participants designed solutions for complex engineering problems and designed system components, processes to meet the specifications.

**PO4:** Participants used research-based knowledge including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

**PO5:** Participants were trained on modern tools.

**PO9:** Participants practiced the modern tools individually.

**PO12:** Learning modern tools and using them for design helps the participants in their future as well.

  
Coordinators

  
HOD

  
Principal



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ON

## “PYTHON PROGRAMMING & ITS APPLICATIONS”

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FDP Coordinator

*Dr. P. N. Sudha*

Professor & Head, ECE Dept

*Dr. Dilip Kumar K*

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Professor & Head, ECE Dept

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FDP Coordinator

*Pus*  
Dr. P. N. Sudha

Professor & Head, ECE Dept

*D. Kumar*

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### REPORT OF FDP: Advances in manufacturing and technologies in aerospace and defence sector

#### Broucher

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**One Week Faculty Development Program on "Advances in Materials & Manufacturing Technologies in Aerospace and Defence sector"**

19<sup>th</sup> September – 23<sup>rd</sup> September 2022

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Designation: \_\_\_\_\_

Name & Address of Organization: \_\_\_\_\_

Phone No: \_\_\_\_\_

Mobile No: \_\_\_\_\_

Email: \_\_\_\_\_

Educational Qualification: \_\_\_\_\_

Professional Experience: \_\_\_\_\_

DD No: \_\_\_\_\_

Bank: \_\_\_\_\_

Dated: \_\_\_\_\_

Date: \_\_\_\_\_

Place: \_\_\_\_\_

Signature Participant \_\_\_\_\_

Signature Head of the Institute \_\_\_\_\_

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Dr. Archana, Registrar, Biochemtech, IIT  
Sri. Mahadev Kokkari, Registrar (Admin), IIT  
Dr. Raj George, HOD, CME, IIT  
Dr. Sifyam Sowras, Prof and Chair, Dept. of Materials Engg., IISc  
Dr. Venkateshvararubla, Principal Scientist, HAL, Bangalore  
Mr. Babu Sathian, V, MD, Process Pump India Pvt Ltd, Bangalore  
Dr. Abh. N. Choudhury, Chairman, IIM Bangalore chapter  
Sri. R. Manjunatha, Chairman, IIT Bangalore chapter  
Dr. Raghavendra Bhat, Advisor, Mecon and Mecon Ltd., Rotheray  
Dr. P. Raghoothama Rao, Former Scientist G, DRDO  
Sri. M.S. Venkatesh, Executive Director (S&T), HAL

**Organizing Committee**

**COORDINATORS**

Dr. Siddaraju, C. ☎ 98806 12806  
Dr. Jyothilakshmi, R. ☎ 98800 73308  
Dr. Nagesh, S.N. ☎ 97403 89754  
Dr. Rajesh, S. ☎ 97436 95345

**MEMBERS**

Dr. C.M. Ramesha ☎ 99013 74130  
Dr. Sunith Babu, L. ☎ 90080 01824  
Dr. T. Anil Kumar ☎ 98634 77722  
Dr. Balasubramanya, H.S. ☎ 98442 48186

**One week Faculty Development Program on "Advances in Materials & Manufacturing Technologies in Aerospace and Defence sector"**

19<sup>th</sup> September – 23<sup>rd</sup> September 2022

Organized by  
**DEPARTMENT OF MECHANICAL ENGINEERING  
RAMAIAH INSTITUTE OF TECHNOLOGY**  
HGR Nagar, PGHST Road, Bengaluru, PIN 560 009

**About Ramaiah Institute of Technology**  
Ramaiah Institute of Technology is one of India's best-known Engineering Education Institutes founded in 1962 by renowned industrialist, philanthropist and visionary Late Dr. M.S. Ramaiah. Rechristened now as Ramaiah Institute of Technology (RIT), it is part of the Gokula Education Foundation (GEF), with other 29 institutions. RIT has received the prestigious Autonomous Status in 2007. RIT Ranked among top 100 institutes across India for last three consecutive years, as per National Institute Ranking Frame Work (NIRF), MHRD, Govt. of India



**About Department of Mechanical Engineering**  
Department of Mechanical Engineering (DME) started in 1962 along with the start of the college. The department offers one UG program (BE in Mechanical Engineering), and 2 PG programs (M.Tech. in Manufacturing Sc. & Engg. And Computer Integrated Manufacturing). The department has over 10000 alumni serving across the globe. Taking advantage of autonomy, the department has introduced several novel courses on renewable energy, Material science, Design & production and computer integrated Manufacturing.

**About FDP**  
Selection of materials and manufacturing processes are playing crucial role in today's competitive world. In order to create sophisticated

product environment, lot of substantial changes have been made in the research and development of polymers, ceramics, semiconducting materials and composites as functional materials in the field of structural, biomedical, sensor and energy applications.

Next generation intelligent automation along with the implementation of cognitive manufacturing powered by AI, advanced analytics, and digital twin implementation will optimise production processes, cut costs, and help A&D manufacturers reach pre-pandemic delivery rates faster and more efficiently. The emergence of material science is also spawning a range of new materials, along with additive manufacturing, and human/robot collaboration that will significantly change the face of aircraft manufacturing.

This FDP focuses on understanding the concept of next generation materials and development of materials for aerospace and Defence sector with the help of advanced manufacturing techniques.

**Objectives of the FDP**  
To train the faculty in the advanced material & their manufacturing Technologies.  
To build abilities in faculties to develop these techniques towards Aerospace & Defence Sector.

**Who can register?**  
Faculties from Department of Mechanical Engineering, Civil Engineering, Electrical & Electronics engineering, IEM, Physics and Chemistry, employees from industries are welcome to register.



**Registration**  
The registrants are required to submit with the application form a registration fee of:  
• INR, 500/-  
(Delegates from Educational Institutions)  
• INR, 200/ (PG Students)  
• INR, 1000 (Industry)  
through a DD drawn in favour of "The Principal, MSRIT", payable at Bangalore.

The signed hard copy of the form and DD should be submitted at the venue while reporting to FDP. The snap of the same to be sent to the coordinator at [jyothilakshmi.r@msrit.edu](mailto:jyothilakshmi.r@msrit.edu), Mob No: 9980073308. You are requested to register at the earliest or by 14<sup>th</sup> of September 2022. The number of participants is restricted to 40 and the registration is based on first come first serve basis. The registration amount will be refunded to the participants during the FDP.

**Note:**  
The selected participants will be informed by email/phone on or before 17<sup>th</sup> September 2022.

## Report

### Faculty Development Program (FDP) Report

**Title:** Advances in manufacturing and technologies in aerospace and defence sector

**Date:** 19th – 23rd Sep 2023, M.S.R.I.T, Bangalore .

**Program Coordinator:** Dr. Siddaraju, Department of mechanical engineering

**Participant:** Dr.GIRISH.T.R . of KSIT, ANILKUMAR.A of KSIT, HARISH.U of KSIT

### Summary:

Selection of materials and manufacturing processes are playing crucial role in today's competitive world. In order to create sophisticated. product environment, lot of substantial changes have been made in the research and development of polymers, ceramics, semiconducting materials and composites as functional materials in the field of structural, biomedical, sensor and energy applications. Next generation intelligent automation along with the implementation of cognitive manufacturing powered by AI, advanced analytics, and digital twin implementation will optimise production processes, cut costs, and help A&D manufacturers reach pre-pandemic delivery rates faster and more efficiently. The emergence of material science is also spawning a range of new materials, along with additive manufacturing, and human/robot collaboration that will significantly change the face of aircraft manufacturing. This FDP focuses on understanding the concept of next generation materials and development of materials for aerospace and Defence sector with the help of advanced manufacturing techniques.

### Objectives of the FDP

To train the faculty in the advanced material & their manufacturing Technologies.

To build abilities in faculties to develop these techniques towards Aerospace & Defence Sector.

SUBMITTED BY:

ANILKUMAR.A



HARISH.U



Dr.GIRISH.T.R



*[Handwritten Signature]*  
SIGNATURE OF HOD  
Head of the Department  
Dept. of Mechanical Engg.  
K.S. Institute of Technology  
Bengaluru - 560 109

*[Handwritten Signature]*  
SIGNATURE OF PRINCIPAL  
PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.



# K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

#14, Raghuvanahalli, Kanakapura Main Road, Bengaluru-5600109

DEPARTMENT OF MECHANICAL ENGINEERING

## REPORT OF FDP: Data Visualization and Standardized Programming Language for Mechanical Engineers

### Brochure:

**NITTE** | **NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY**  
 EDUCATION TRUST  
 An Autonomous Institution Affiliated to Visvesvaraya Technological University, Approved by UGC/AICTE/Govt. of Karnataka, Accredited by NAAC (Grade 'A+') Bangalore -560064, Karnataka, INDIA

DEPARTMENT OF MECHANICAL ENGINEERING  
 Accredited by NBA (Tier-I)

National Level Online Faculty Development Program (FDP) on  
**DATA VISUALIZATION AND STANDARDIZED PROGRAMMING LANGUAGE FOR MECHANICAL ENGINEERS**  
 04<sup>th</sup> to 08<sup>th</sup> July 2022

**SCHEDULE & TOPIC**

Day	Topics [ Session:1   10.30 am to 12.00 pm, Session:2   1.30 pm to 3.00 pm ]
1	Session1 (Mr. Sachin S Timmapur, Landmark Group) Introduction to Business Intelligence Session2 (Mr. Saddam, Landmark Group) Data Warehousing
2	Session1 (Mr. Saddam, Landmark Group) Introduction to Database Session2 (Mr. Saddam, Landmark Group) SQL
3	Session1 (Mr. Saddam, Landmark Group) DBMS and OLTP VS OLAP Session2 (Mr. Sachin S Timmapur, Landmark Group) Introduction to Power BI
4	Session1 (Mr. Sachin S Timmapur, Landmark Group) Power Query Editor Session2 (Mr. Sachin S Timmapur, Landmark Group) Power Visualization
5	Session1 (Mr. Sachin S Timmapur, Landmark Group) Power BI Services Session2 (Dr. Jose de Jesus Agustin Flores Cueutle, Orizaba Technological University, Mexico) Tips and tricks on data presentation Discussions and Valedictory function

**Eligibility**  
 Faculty members & Industry Persons and research scholars, belonging to AICTE approved technical Institutions and such Universities can participate in the programme.

**Account Details**  
 Bank Name : Axis Bank  
 Branch: Yelahanka  
 A/c No: 094010100165396  
 IFSC Code: UTIB0000094

**Important Dates**  
 Last date for Registration  
 03<sup>rd</sup> July 2022  
 Confirmation of Seats  
 03<sup>rd</sup> July 2022

**FDP Platform**

E- Certificates will be issued to all participants who successfully attend all online session throughout the FDP program.

Scan for Registration:

**Report****Faculty Development Program (FDP) Report**

**Title:** Data Visualization and Standardized Programming Language for Mechanical Engineers

**Date:** 04th to 08th July 2022, NMIT, Bangalore.

**Program Coordinator:** Dr. Vijay Kumar S Asst Professor, Dept of ME,NMIT

**Participant:** Mr. Rajesh G.L, KSIT Bengaluru.

**Summary:**

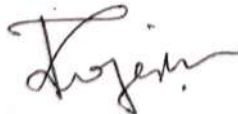
Data visualization is a concept of gathering data, performing analysis and representing them as a visual context, as said “A picture is worth a thousand words” in the form of a map or a graph. Data visualizations done effectively will allow the human brain to understand the properties of data in a subtle form and therefore come to conclusions at a faster time period rather than spending more time on that. Data Visualization also eases humans to detect patterns, trends, and outliers in the data used for analysis. This FDP provides skills to represent the data in a graphical or pictorial format in an attempt to help people understand its significance. In today’s world, data visualization skills have become necessary to be able to identify or uncover patterns, correlations and trends etc.

**Objectives of the FDP**

To impart knowledge on fundamental & advanced concepts of Data Visualization & its applications for the present Scenario

To provide the possibility bridge between Industry and institute in terms of data management.

To discuss standard language for storing, manipulating and retrieving data in database system

**SUBMITTED BY:****RAJESH G.L**

# CERTIFICATE


OF PARTICIPATION

This is to certify that  
Mr. RAJESH GL

From K. S. Institute of Technology, Bengaluru

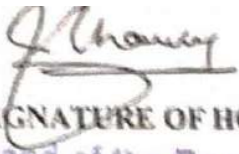
has Participated in One Week Faculty Development Program (FDP) on "DATA VISUALIZATION AND STANDARDIZED PROGRAMMING LANGUAGE FOR MECHANICAL ENGINEERS" from 04<sup>th</sup> to 08<sup>th</sup> of July 2022, organized by Department of Mechanical Engineering, Nitte Meenakshi Institute of Technology, Bangalore-64, Karnataka, INDIA.


  
**Dr. H. C. Nagaraj**  
Principal, NMIT, Bangalore

  
**Dr. Sudheer Reddy J**  
Head, Dept. Of Mech Engg,  
Convener- FDP  
NMIT, Bangalore.



Made for free with Certify'em

  
SIGNATURE OF HOD  
Head of the Department  
Dept. of Mechanical Engg.  
K.S. Institute of Technology  
Bengaluru - 560 109

  
SIGNATURE OF PRINCIPAL  
PRINCIPAL  
K.S. INSTITUTE OF TECHNOLOGY  
BENGALURU - 560 109.