



**KSIT**  
K S INSTITUTE OF TECHNOLOGY

# K S INSTITUTE OF TECHNOLOGY

No.14, Raghuvanahalli, Kanakapura Main Road, Bengaluru - 560109

(Approved by AICTE, New Delhi, Affiliated to VTU, Belagavi, Karnataka, Accredited by NAAC A+ grade & NBA (CSE & ECE))



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



### IBM-ICT Training on DATA Analytics

**Date of Conduction: 17-11-2025 to 20-11-2025**

**Venue: NB 103 Seminar hall**

**Time: 9.00AM to 4.00PM**

**Duration: 42 Hours**

**Sponsoring Bodies / Associating Organizations: NA Expert Details – with photo**



**Name : Mrs Deepa D**  
**Designation :Trainer**  
**Organization : IBM-ICT Academy**

### **BRIEF PROFILE ABOUT THE EXPERT:**

Mrs Deepa is a IBM-ICT trainer in python,and data analytical tool.

### **DESCRIPTION OF THE EVENT:**

The event started with welcome speech by Prof Sangeetha mam and profile reading by Prof Meghashree Our beloved hod Dr Deepa S R invited trainer and prinicipal Dr Dilip Kumar sir.

### **Day1:17/11/05 Session 1**

In the morning session, we were introduced to the basic concept of data analytics and why it has become an essential part of modern technology. We learned that data analytics helps organizations make better decisions by understanding patterns, trends, and insights from raw data. Its importance lies in improving efficiency, predicting outcomes, solving problems, and supporting informed decision-making in almost every field, including business, healthcare, and education.



**Fig 1.1: Welcome speech and Session1**

### Day1:17/11/05 Session 2

The session included the installation and setup of Anaconda, which is a popular tool for data science because it provides Python, useful libraries, and an easy environment manager. After installing Anaconda, we learned how to use Jupiter Notebook, a user-friendly platform for writing and running Python code. Jupyter Notebook allows us to write code, see the output immediately, and add explanations, making it very useful for learning and performing data analysis.

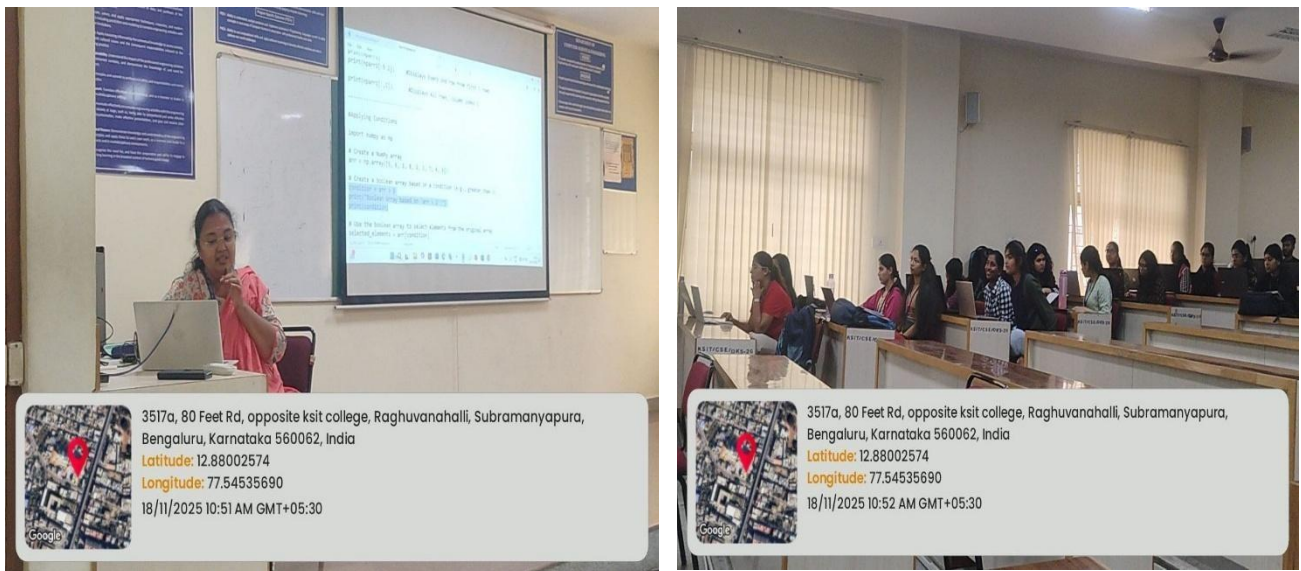
Overall, the morning session provided a clear introduction to data analytics and guided us through setting up the essential tools needed for Python-based data analysis.



**Fig 1.2: Welcome speech and Session1**

### Day 2:18/11/2025 Session 1

In this session, various fundamental data-preprocessing and visualization techniques were explored using **Python**, **Pandas**, and **Matplotlib**. These operations are critical for real-world data analysis, where datasets often contain duplicates, mixed types, textual noise, missing values, and require visual representation for insights.



**Fig 2.1: Session 2 Data Pre-Processing and Visualization**

**Day 2:18/11/2025 Session 2**

This session demonstrates different methods of creating and manipulating pandas Data Frames using tuples, NumPy arrays, and Python dictionaries. It showcases how raw data—whether stored in lists of tuples, NumPy arrays, or key-value pairs—can be structured into a tabular format using pandas. Additionally, the code illustrates essential Data Frame operations, including selecting single and multiple columns to access specific subsets of data for analysis.



**Fig 2.2: Session 2 Creating Data Frames**

**Day 3:19/11/2025 Session 1**

In today’s session, various important data manipulation and visualization skills were practiced using Pandas and Matplotlib. The activities covered the entire workflow of data preprocessing:

- Handling duplicates
- Cleaning messy and mixed data

- Converting types safely
- Reading Excel files
- Generating different types of visual charts



**Fig 3.1: Session 1 Creating Data Frames using panda and MatPlotLib**

### **Day 3:19/11/2025 Session 2**

The session explained about data preparation, exploratory data analysis (EDA), visualisation using Matplotlib and Seaborn, basic statistical summaries and outlier detection, simple time-series operations, data merging/aggregation, and an introductory linear regression exercise



**Fig 3.2: Session 2 Creating Data Frames using panda**

### **Day 4:20/11/2025 Session 1**

In this lab session, we explored different data visualization techniques using Python libraries such as Pandas, Matplotlib, Seaborn, and Scikit-learn. The aim of the experiments was to understand how graphs can be used to study data, identify patterns, and observe relationships between different variables. We began by plotting a box plot using height, weight, and BMI data from a CSV file. A box plot provides an easy way to see the middle value of the data, how the values are spread, and whether there are any outliers. This helped us compare all three variables in a single visualization.



**Fig 4.1: Session 1 Practical session on Panda, Matplotlib, Seaborn, and Scikit-learn**

### **Day 4:20/11/2025 Session 2**

Sessions used practical datasets and combined short explanations with live Python demonstrations: Pandas, NumPy, Matplotlib, Seaborn, SciPy, scikit-learn. A reinforced pragmatic workflow: clean data first, use descriptive statistics and visualization to explore and validate; detect and treat outliers, summarize time series through resampling, and apply simple models to quantify relationships. Strong emphasis was placed on the interpretation of outputs and production of clear, labelled visualizations, in order to communicate findings.



**Fig 4.2: Session 2 Valedictory Photos**

**Objectives / Key Highlights:**

- **Build a Strong Foundation in Data Analytics**
  - Understand core concepts of data analytics, data types, and analytics lifecycle
  - Learn how data supports business decision-making
- **Develop Practical Data Handling Skills**
  - Collect, clean, and preprocess structured and unstructured data
  - Work with large datasets using industry-standard tools
- **Gain Proficiency in Analytical Tools & Technologies**
  - Use tools such as **Excel, SQL, Python, R, and IBM Cognos**
  - Apply statistical and analytical techniques to real datasets
- **Learn Data Visualization & Storytelling**
  - Create meaningful dashboards and reports
  - Present insights effectively using charts, graphs, and visual tools
- **Apply Statistical & Predictive Analysis Techniques**
  - Perform descriptive, diagnostic, predictive, and prescriptive analytics
  - Understand basic machine learning concepts for data analysis
- **Understand Business & Industry Use Cases**
  - Solve real-world problems through case studies
  - Align data insights with business objectives
- **Enhance Employability & Career Readiness**
  - Gain hands-on project experience
  - Prepare for entry-level roles such as **Data Analyst, Business Analyst, or Junior Data Scientist**
- **Promote Ethical & Responsible Data Use**
  - Understand data privacy, security, and ethical considerations

**PARTICIPANT DETAILS :**

**No. of Participants: 65**

**Students (internal/external): 7<sup>th</sup> sem (Internal)**

**Faculty co-ordinator: Dr Deepa S R and Prof. Beena (Geo Tagged):**

**Video-URL (if any): No**

**Outcomes /Benefits:**

- Learners gain **practical proficiency in data analytics tools** such as Excel, SQL, Python, and visualization platforms.
- Ability to **collect, clean, analyze, and interpret data** to derive meaningful insights.
- Hands-on experience through **real-world datasets, case studies, and projects**.
- Improved understanding of **statistical analysis and basic predictive techniques**.
- **Improved employability** with industry-aligned, job-relevant skills.
- Exposure to **IBM-recommended tools and methodologies**, increasing industry credibility.
- Development of **analytical thinking and problem-solving skills**.
- Better decision-making ability using **data-driven approaches**.

<b>EO #</b>	<b>EVENT OUTCOMES</b>
<b>EO1</b>	Understanding the of <b>data analytics tools</b> such as Excel, SQL, Python, and visualization platforms.
<b>EO2</b>	Ability to <b>collect, clean, analyze, and interpret data</b> to derive meaningful insights.
<b>EO3</b>	Development of <b>analytical thinking and problem-solving skills</b>

<p><b>PO1:</b> Science and engineering Knowledge</p> <p><b>PO2:</b> Problem Analysis</p> <p><b>PO3:</b> Design &amp; Development</p> <p><b>PO4:</b> Investigations of Complex Problems</p> <p><b>PO5:</b> Modern Tool Usage</p> <p><b>PO6:</b> Engineer &amp; Society</p> <p><b>PSO1:</b> Ability to understand, analyze problems, and implement solutions in Programming languages, as well to apply concepts in core areas of Computer science in association with professional bodies and clubs.</p>	<p><b>PO7:</b> Environment and Sustainability</p> <p><b>PO8:</b> Ethics</p> <p><b>PO9:</b> Individual &amp; Team Work</p> <p><b>PO10:</b> Communication</p> <p><b>PO11:</b> Project Management &amp; Finance</p> <p><b>PSO2:</b> Ability to use Computation Skills and apply software knowledge to develop effective solutions and data to address real world challenges.</p>
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## EO-PO Mapping

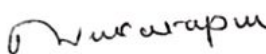
EO #	PO1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2
EO1	3	2	2	2				2	2	2		2	2
EO2	3	2	2	2				2	2	2		2	2
EO3	3	2	2	2				2	2	2		2	2
AVG	3	2	2	2				2	2	2		2	2

3	Substantial (High) Correlation
2	Moderate (Medium) Correlation
1	Slight (Low) Correlation
-	No correlation.

PO's attained: PO1, PO2, PO3, PO4, PO8, PO9, PO10

PSO's attained: PSO1, PSO2

  
Co-Ordinator

  
HOD-CSE  
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.

**Attachments:**

- **Communication with Resources person**
- **Resources person Profile**
- **Evaluation and Feedback**
- **Budget and Expenditure Details/amount**



**K.S. INSTITUTE OF TECHNOLOGY, BENGALURU-109**

ICT ACADEMY DATA ANALYTICS TRAINING PROGRAM IN ASSOCIATION WITH IBM-7th Sem

Day-1(17/11/2025) Student Feedback 2025-26



Timestamp	Name of the Student	USN	Sem ester	Section	Department	1.How was the interaction with the trainer about the course?	2.How well the information delivered by the trainer ?	3. How well you gained knowledge on today's session?	4.How was the hands on session?	5 Effectiveness of the session to engage yourselves in independent and life long learning in multidisciplinary environments
2025/11/17 3:17:27 PM GMT+5:30	Shreya P.R	1KS22CS147	7		CSE	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 3:17:56 PM GMT+5:30	Arshya J	1KS22CM005	7	NA	CCE	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 3:17:58 PM GMT+5:30	Shreyas M V	1KS22IC048	7	H	CSE-ICB	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:18:12 PM GMT+5:30	Pavan Umesh Kulkarni	1KS22CM037	7		CCE	Excellent	Very good	Very Good	Very Good	Very Good
2025/11/17 3:18:13 PM GMT+5:30	HIMASHWETHA K. G	1KS22CS051	7	A sec	CSE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:19:05 PM GMT+5:30	Tanish	1KS22IC054	7	H	CSE-ICB	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:19:29 PM GMT+5:30	Thanusha S	1KS22CS169	7	C	CSE	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 3:19:59 PM GMT+5:30	Anvitha M V	1KS22CS020	7	A	CSE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:20:19 PM GMT+5:30	Kundan Kumars	1KS22CM026	7	CCE	CCE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:20:19 PM GMT+5:30	Divyashree S	1KS22CS041	7	A	CSE	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 3:20:53 PM GMT+5:30	Vikas K S	1KS22EC119	7	B	ECE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:21:20 PM GMT+5:30	Disha A	1KS22CM016	7	Na	CCE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:21:26 PM GMT+5:30	Yarabothula Chaitanya	1KS22CM059	7	CCE	CCE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:21:30 PM GMT+5:30	Vamshi NM	1KS22CS177	7	C	CSE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:22:37 PM GMT+5:30	Raghu H M	1KS22EC078	7	B	ECE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:23:14 PM GMT+5:30	Gagan Gowda B G	1KS22CS043	7	A	CSE	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 3:24:18 PM GMT+5:30	Sinehana M	1KS22CS149	7	C	CSE	Good	Good	Good	Very Good	Good
2025/11/17 3:30:26 PM GMT+5:30	Darshan D Gowda	1KS22EC037	7	A	Cse	Excellent	Excellent	Very Good	Very Good	Very Good
2025/11/17 3:35:01 PM GMT+5:30	Rachna V	1KS22IC036	7	ICB	CSE-ICB	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 3:48:28 PM GMT+5:30	M Vaishnavi	1KS22A0024	7	A	AIML	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 3:51:21 PM GMT+5:30	H P RINI JAIN	1KS22CS119	7	B	CSE	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 3:54:10 PM GMT+5:30	Anubhav Misra	1KS21CS013	7	C	CSE	Excellent	Excellent	Very Good	Very Good	Excellent
2025/11/17 3:58:15 PM GMT+5:30	PRANAV B R	1KS22CS106	7	B	CSE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 3:58:29 PM GMT+5:30	Sharath M	1KS22A0045	7	A	AI ML	Excellent	Very good	Excellent	Excellent	Very Good
2025/11/17 4:09:19 PM GMT+5:30	Harshitha P	1KS22CG016	7	A	CSD	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 4:10:14 PM GMT+5:30	Darshan M	1KS22IC011	7	H	CSE - ICB	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 4:14:34 PM GMT+5:30	Sachin Somashekar Kumbar	1KS22CS125	7	B	CSE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 4:16:04 PM GMT+5:30	Sneha	1KS22EC095	7	B	ECE	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 4:21:47 PM GMT+5:30	Umesh L	1KS22CG055	7	A	CSD	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 4:22:51 PM GMT+5:30	Srushti	1KS22CG051	7	A	Csd	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 4:23:27 PM GMT+5:30	Traya Hiremath	1KS22CG053	7	A	CSD	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 4:24:10 PM GMT+5:30	Deeksha C	1KS22CG012	7	A	CSD	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 4:54:05 PM GMT+5:30	V Pallavi	1KS22CG400	7	A	Csd	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 4:57:29 PM GMT+5:30	Srinidhi N	1KS22CG049	7	A	CSD	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 5:13:58 PM GMT+5:30	Pradyumna VG	1KS22A0031	7	A	AIML	Excellent	Excellent	Excellent, Very Good	Excellent	Excellent
2025/11/17 5:20:18 PM GMT+5:30	Dhruva S	1KS22CM011	7	A	CCE	Excellent	Excellent	Excellent	Excellent	Very Good
2025/11/17 5:21:53 PM GMT+5:30	Lakshmi Shree K P	1KS22CS067	7	B	CSE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 5:23:06 PM GMT+5:30	Darshan Gowda M K	1KS22EC030	7	A	ECE	Very Good	Very good	Very Good	Very Good	Very Good

Timestamp	Name of the Student	USN	Semester	Section	Department	1. How was the interaction with the trainer about the course?	2. How well the information delivered by the trainer?	3. How well you gained knowledge on today's session?	4. How was the hands on session?	5. Effectiveness of the session to engage yourselves in independent and life long learning in multidisciplinary environments
2025/11/17 6:17:14 PM GMT+5:30	Manoj K	1KS22CG030	7	A	CSD	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/17 6:34:45 PM GMT+5:30	Varshini B S	1KS22AJ059	7	A	AI&ML	Good	Good	Good	Good	Good
2025/11/17 6:40:18 PM GMT+5:30	K M Anil Kumar	1KS22IC019	7	H	CSE-ICB	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 8:19:03 PM GMT+5:30	Shashank M	1KS22CG043	7	A	CSD	Very Good	Very good	Very Good	Very Good	Very Good
2025/11/17 10:00:29 PM GMT+5:30	Adeeba Ismath	1KS22EC002	7	A	ECE	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/18 8:08:09 AM GMT+5:30	Kamnoor Aditya	1KS22CS057	7	A	Cse	Excellent	Excellent	Excellent	Excellent	Excellent
2025/11/18 8:23:55 AM GMT+5:30	Ganashree K N	1KS22AJ015	7	NA	AIML	Excellent	Very good	Excellent	Very Good	Very Good
2025/11/18 11:18:28 AM GMT+5:30	Ashwin P	1KS22EC018	7	A	ECE	Excellent	Excellent	Excellent	Excellent	Excellent

*G. Usha Rani*

CO-ORDINATOR

*Deepa*

HOD

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



K.S.INSTITUTE OF TECHNOLOGY, BENGALURU-560109

DEPARTMENT OF Computer Science & Design

Date: 31-10-2025

Event Permission and Budget

Semester-VIISem

Academic Year: 2025-2026

To  
The Director/Principal,  
KSIT, Bengaluru

Subject: Requesting permission to conduct "IBM-ICT training on Data Analytics"

Through: HOD (Department of CSD)

Respected Sir,  
Skill building training on "Data Analytics" is scheduled from 17-11-2025 to 20-11-2025 for the 7th Semester CSE/CSD/CCE/CSE-ICB/EC/AI-ML students under IBM and ICT academy training program.

Resource Person: IBM

Budget of the event:

RECEIPTS		EXPENDITURE	
Registration	NIL	Publicity: Banner & Poster	1500
Sponsorships from KSIT CSI Student Branch	NIL	Stage Arrangements: Bouquet	1200
Any others	NIL	Registration Kits	NIL
		Resource Persons: Remuneration-Memento	1000
		Catering Expenses- Tea/Juice/Biscuits	1500
		Miscellaneous expenditure	500
<b>Total</b>	<b>NIL</b>	<b>Total</b>	<b>5700</b>

I request your permission to organize this training and grant the above budget of Rs 5700/-. Also, I request you to kindly arrange breakfast and lunch from the hostel for the resource person.

Thanking You,

Yours Faithfully,

*[Signature]*  
Coordinator

*[Signature]*  
05/11/2025  
Deefa  
HOD-CSD

*[Signature]*  
03/11/25  
*[Signature]*  
03/11/25  
Principal/Director

Received by  
*[Signature]*

*Mr. Balakrishna - KSHASHI*  
*Pl. provide morning till 11, Afternoon*  
*lunch for 1 person from 17.11.25 to 20.11.25*  
*17/11/25*



**Shanvika Upahar**  
K.S.I.T. COLLEGE CANTEEN  
No. 14, Rajgurunahalli, Bangalore - 560 062.



Anand Kumar S.R.

Revanna Siddeswara Prasanna

Mob : 99017 63817

CASH BILL

96110 12577

To: C.S. D

No.: 831

Date: 20/11/25

Sl. No.	Particulars	Qty.	Rate	Amount Rs.	Ps.
17/11/20-11/r	5888				
	Coffee	16	10	160	
	Juice	20	5	100	
	TOTAL			260	58
Rupees <i>Two hundred and sixty</i>				For <i>Anand Kumar S.R.</i>	

*Computer Science and design*

*As Porton = 1-20*

*140/-*

*Shanvika*  
**SHANVIKA XEROX**  
**(K.S.I.T. CAMPUS)**  
No. 14, Rajgurunahalli,  
Kanakapura Main Road,  
BANGALORE-560 062.  
Ph. 9971830558.

*17/11/25*  
*water - 120*

*120*

*S.V. Anand Dairy*  
No. 3501/A, Rajgurunahalli  
Kanakapura Main Road  
Bengaluru-560 062

*Deepa*  
Head of the Department  
Computer Science & Design  
K.S. Institute of Technology  
Bengaluru - 560 109.

Sent by: ~~XXXXXXXXXX~~  
₹579.00

Track package

Return or replace items

Ask Product Question

Leave seller feedback

Write a product review

Moments To  
IBMIC TO Trainer  
3  
₹586/-

### Payment method

Pay on Delivery

### Ship to

Sushmitha  
14, Sri Sai Ganesh Ladies Pg, Kanakapura Main Road  
Raghuvanahalli  
Bengaluru, KARNATAKA 560062  
India

### Order Summary

Item(s) Subtotal:	₹579.00
Shipping:	₹99.00
Cash/Pay on Delivery fee:	₹7.00
Total:	₹685.00
Promotion Applied:	-₹99.00
Grand Total:	₹586.00



Payment successful  
to Shashi Kumar K G



**₹240**



You earned 0.38% cashback

17 November 2025 • 08:47AM

UPI Transaction ID: 568738323634

[View Details](#)

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

*Shashi*