

K. S. INSTITUTE OF TECHNOLOGY

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

Faculty Name	Dr. UMASHANKAR M	
Designation	Professor & HEAD, Mechanical Engineering	
Educational Qualification	M.Sc (Engg), Ph.D	
Experience in Years	Teaching: 21 Years Industry: 4 Years	
Areas of Interest	Design, Tribology	
E-mail	umashankarm@ksit.edu.in	



Educational Details

Examination/	College / University	Year of
Degree	College / University	Passing
UG	M. S. R. I. T / Bangalore University	1996
PG	U. V. C. E / Bangalore University	2006
PhD	V I T University	2021

Publications

Journal Publications:

- 1. M. Umashankar, K. Annamalai, "Influence of Nickel Particulate reinforcement on Morphological and Mechanical Properties of ZA-27alloy composites", *Solid State Technology*, Volume 63, Issue 2S, 2020, PP. 5617-5632.
- 2. Adithya Pai U, Akshay, Ankush A Telkar, Ashray Shetty, Umashankar M, "Proportional Integral Derivative Controller on Boilers Temperature and Flow Control Parameters", *International Journal of Pure and Applied Mathematics* (IJPAM), Volume 119, Issue 14, 2018, PP: 173-177.
- 3. M. Umashankar, G. S. Santhosh, "Design of Conical Strainer and Analysis Using FEA", *International Journal of Engineering Science Invention* (IJESI), Volume 7, Issue 2, Version V, February 2018, PP. 61-65.
- **4.** M. Umashankar, Shishir Ganesh S, "Vertical Takeoff and Landing (VTOL) aircraft using Tiltrotor Mechanism", *International Journal on Recent Technologies in Mechanical and Electrical Engineering* (IJRMEE), Volume 5, Issue 2, Feb 2018, ISSN: 2349-7947, PP: 01 04.
- 5. M. Umashankar, K. Annamalai, "Damping properties of nickel-added modified Zinc alloys", *Journal of Mechanical Engineering and Sciences* (JMES), Volume 11, Issue 4, Dec 2017, PP: 3217-3226.
- 6. M. Umashankar, V. Anirudh, KhushalPishey, "Investigation of Tesla Turbine", *International Journal of Latest Technology in Engineering, Management and Applied Sciences* (IJLTEMAS), Volume 6, Issue 12, Dec 2017, PP: 23-27.

Conference Papers:

- 1. M. Umashankar, "Influence of reinforcement on Mechanical Properties of modified ZA alloys", *N.M.A.M. Institute of Technology, NITTE* during 23rd-24th May 2019.
- 2. M. Umashankar, K. Annamalai, "Investigation of Transition in Sliding Wear Resistance of Nickel based Zinc Alloy", *Elsevier, Materials Today: proceedings*, Volume 4 Issue 8, 2017, PP:9141-9146.
- 3. M. Umashankar, K. Annamalai, "Investigation on Ni-modified ZA alloy for Damping properties", *Elsevier, Materials Today: proceedings*, Volume 4 Issue 9, 2017, PP: 10134 10137.

Google Scholar: https://scholar.google.com/citations?user=vrdHtsQAAAAJ&hl=en

Awards

- 1. BEST PROJECT OF THE YEAR 2019-20 from KSCST participated in 43rd Series SPP for the project "Design and Fabrication of Solid Waste Collector and Water DeFrothing device".
- 2. Project "Design and construction of an Integrated domestic Organic waste composting device" Selected for 42nd Series SPP in KSCST.
- **3. BEST PROJECT OF THE YEAR 2017-18** from KSCST participated in 41st Series SPP for the project "**Proportional Integral Derivative Controller on boilers**".

Online Courses:

- 1. E-Quiz on NBA: Level 1 Completed held by SAPTHAGIRI COLLEGE OF ENGINEERING, Bangalore.
- **2.** Coursera "Introduction to basic Vibrations" from KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY, by 15th July 2020 with 84.25 %.
- **3.** Coursera "Introduction to Digital Manufacturing with Autodesk Fusion 360" from AUTODESK, by 20th July 2020 with 80.94 %.
- **4.** Coursera "Introduction to CAD, CAM, and Practical CNC Machining", from AUTODESK, by 21st July 2020 with 92.5 %.
- **5.** Coursera "Autodesk Fusion 360 Integrated CAD/CAM/CAE", from AUTODESK, by 28th July 2020 with 90.93
- **6.** Coursera "Introduction to Engineering Mechanics", from GEORGIA INSTITUTE OF TECHNOLOGY by 5th Aug 2020 with 86.67 %.
- 7. Coursera "Mechanic of Materials I". From GEORGIA INSTITUTE OF TECHNOLOGY by 9th Aug 2020 with 86.67 %.
- **8.** Coursera "Introduction to Thermodynamics", from UNIVERSITY OF MICHIGAN by 10th Aug 2020 with 87.76 %.
- 9. Coursera "Introduction to Advanced Vibrations", from KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY by 12th Aug 2020 with 84.06 %.
- **10.** Coursera "Material Processing", from GEORGIA INSTITUTE OF TECHNOLOGY by 14th Aug 2020 with 92.5 %.
- 11. Coursera "Materials Science", from UNIVERSITY OF CALIFORNIA, DAVIS by 15th Aug 2020 with 85.78 %.

- 12. Coursera "Introduction to High-Throughput Materials Development", from GEORGIA INSTITUTE OF TECHNOLOGY by 7th Sept 2020 with 80.5 %.
- **13.** Coursera –" **Mechanics of Materials II**: Thin-Walled Pressure Vessels and Torsion", from **GEORGIA INSTITUTE OF TECHNOLOGY** by 17th Sept 2020 with 89 %.

Professional Membership

- 1. Indian Society for Technical Education (ISTE)
- 2. The Institution of Engineers (IEI)
- 3. Member in University Space Engineering Consortium (UNISEC) India.

Events Conducted:

- 1. One week ONLINE **FDP** on "*Recent Advances & trends in Mechanical Engineering & Material Science*" from 27th July to 31st July 2020.
- 2. Co-ordinator for 16th Karnataka state level ISTE Student Convention on "Smart world through Innovation Future Technology" held on 22nd February 2020.
- 3. Three days **FDP** on "MATLAB and LATEX", from 24th-26th July 2019.
- **4.** Three days **FDP** on "*Outcome Based Education NBA*", from 17th-19th July 2019.

Events Attended:

- One Week AICTE Sponsored Short Term Technical Program on Recent Advances in Tribology and Surface Engineering: "Series 4 of 4 – Surface Characterization and treatments in Tribology" held on 23rd to 28th November 2020 at Saintgits College of Engineering, Kottayam, Kerala.
- 2. One Week AICTE Sponsored **Short Term Technical Program** on Recent Advances in Tribology and Surface Engineering: "Series 3 of 4 Introduction to Special Topics like Nanotribology, Biotribology, Space tribology" held on 12th to 17th October 2020 at Saintgits College of Engineering, Kottayam, Kerala.
- 3. One Week AICTE Sponsored **Short Term Technical Program** on Recent Advances in Tribology and Surface Engineering: "Series 2 of 4 **Tribology of Machine Components and Applied Tribology**" held on 14th to 19th September 2020 at Saintgits College of Engineering, Kottayam, Kerala.
- 4. One Week AICTE Sponsored **Short Term Technical Program** on Recent Advances in Tribology and Surface Engineering: "Series 1 of 4 Introduction to Tribology and Surface Engineering" held on 17th to 22nd August 2020 at Saintgits College of Engineering, Kottayam, Kerala.
- **5.** One Day **Webinar** on "*The How? And Why? Of Transitioning to Data science for Non IT Professionals*" held on 30th May 2020 at Cambridge Institute of Technology, Bangalore.
- 6. One Week ONLINE **FDP** on "Advances in Mechanical Engineering" held from 11th July 2020 to 15th July 2020 at Jyothy Institute of Technology, Bangalore.
- 7. 5 Days ONLINE **FDP** on "Advances and Research in Mechanical Engineering" held from 20th July 2020 to 24th July 2020 at K. S. School of Engineering and Management, Bangalore.
- 8. One day **Webinar** on "*Bio-Materials Science and Engineering: A brief introduction & its Future Scope*" held on 22nd July 2020 at S J B Institute of Technology, Bangalore.

- 9. Two Days **Webinar** on "*Recent Trends in Production Technology*" held from 27th July to 28th July 2020 at East West Institute of Technology, Bangalore.
- 10. **Grama Swaraja 2020**, by **NSS**, **KSIT**, held at Gollahalli, Kankapura Taluk, Ramanagara District, Karnataka from 5th 11th Feb 2020.
- 11. **International Seminar** on "75 *Students Satellites Mission 2022*", held from 4th 5th September 2019 at NIMHANS Convention Centre, Bangalore.
- 12. One day **Workshop** on "*New Approach to the revised Assessment & Accreditation of NAAC*" held on 4th January 2019 at Global Academy of Technology, Bangalore.

Contact Details

Name: M. Umashankar

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Phone Nos: 080-28435724 Ext 300 Email: umashankarm@ksit.edu.in

Alternate Email: umashankar.m74@gmail.com

Journal Publications:

Sl.	Title	Journal Name	Volume, Issue
No			& Page Number
1.	Damping properties of nickel- added modified Zinc alloys	Journal of Mechanical Engineering and Sciences (JMES),	Volume 11, Issue 4, Dec 2017, PP: 3217-3226.
2.	Investigation of Tesla Turbine	International Journal of Latest Technology in Engineering, Management and Applied Sciences (IJLTEMAS)	· ·
3.	Vertical Takeoff and Landing (VTOL) aircraft using Tiltrotor Mechanism,	International Journal on Recent Technologies in Mechanical and Electrical Engineering (IJRMEE)	Volume 5, Issue 2, Feb 2018, ISSN: 2349-7947, PP: 01 – 04.
4.	Design of Conical Strainer and Analysis Using FEA	International Journal of Engineering Science Invention (IJESI)	Volume 7, Issue 2, Version V, February 2018, PP. 61-65.
5.	Proportional Integral Derivative Controller on Boilers Temperature and Flow Control Parameters	International Journal of Pure and Applied Mathematics (IJPAM)	Volume 119, Issue 14, 2018, PP: 173-177.
6.	Influence of Nickel Particulate reinforcement on Morphological and Mechanical Properties of ZA-27alloy composites	Solid State Technology	Volume 63, Issue 2S, 2020, PP. 5617-5632.

ONLINE courses:

Sl	Course Name	Sponsored	Completion	%	G
No 1	Introduction to basic Vibrations	By KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLO GY	Date 15 th July 2020	84.25	Course CERTIFICATE Umashankar M Its unauthyrighted Introduction to Ballet Vibrations Outline State Vibrations And when the mark the state Vibrations And when the state Vibrations
2	Introduction to Digital Manufacturing with Autodesk Fusion 360	AUTODESK	20 th July 2020	80.94	COURSE CERTIFICATE Umashankar M Inter to Digital Mandreteraring with Astedesk Faster by on also are made one submed by hands of and doing these and have been submed by hands of and along these sole have been submed by hands of and along these and have been submed by hands of and by hands of the submed by hands of
3	Introduction to CAD, CAM, and Practical CNC Machining	AUTODESK	21 st July 2020	92.5	COURSE CERTIFICATE Umashankar M tor mendedy-improsed Interdeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, CAM, and Frestical CHC Mexisting us without mendeduction to CAD, and and Frestical CHC Mexisting us without mendeduction to CAD, and and Frestical CHC Mexisting us without mendeduction to CAD, and and Frestical CHC Mexisting us without mendeduction to CAD, and and Frestical CHC Mexisting us without mendeduction to CAD, and and Frestical CHC Mexisting us without mendeduction to CAD, and and another to CAD, and anot
4	Autodesk Fusion 360 Integrated CAD/CAM/CAE	AUTODESK	28 th July 2020	90.93	COURSE CERTIFICATE Umashankar M Intervention implied Activides Training for Integrated CAD/CAM/CAE on other to confirm one soldinarily furnish and when from the confirmation of the co
5	Introduction to Engineering Mechanics	GEORGIA INSTITUTE OF TECHNOLO GY	5 th Aug 2020	86.67	COURSE CENTIFICATE A Transmitter of the Course of the Cou

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6	Mechanic of Materials 1	GEORGIA INSTITUTE OF TECHNOLO GY	9 th Aug 2020	86.67	Georgia Insectionals Course Course Centricate Umashankar M The manufacture of Masterials I. Foodamentals of Stress & Strains and Askal Askal Insecting However, and Askal Askal Insecting 1 and 1
7	Introduction to Thermodynamics	University of Michigan	10 th Aug 2020	87.76	TOURSE CERTIFICATE TOURS ARE HEAD TOURS ARE THE TOURS ARE THE TOURSE T
8	Introduction to Advanced Vibrations	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLO GY	12 th Aug 2020	84.06	Ang in sea. Umashankar M Introduction to Advanced Vibrations as who would make now aboutly to make about home of home and tookes got city and allow the make to make the ma
9	Material Processing	GEORGIA INSTITUTE OF TECHNOLO GY	14 th Aug 2020	92.5	Georgialize@Subset OTECHNINGSOURS For the CHNINGSOURS For the CHNINGSOURS For the CHNINGSOURS For the CHNINGSOURS Material Processing on other seconds none advanted by Georgia before of Producing and afford formal control of the Chningsours Material Processing on other seconds none advanted by Georgia before of Producing and afford formal control of the Chningsours
10	Materials Science	University of California, Davis	15 th Aug 2020	85.78	TOURSE CERTIFICATE To up and Umashankar M In merendika regioned Materials Science in Things Every Engineer Should know on the mondations authorise to immore of Olderson, below out disnel disnellations Materials Science in Things Every Engineer Should know on the mondations authorise to immore of Olderson, below out disnel disnellations Materials and the science in the science of the sc

11	Introduction to High-Throughput Materials Development	GEORGIA INSTITUTE OF TECHNOLO GY	7 th Sept 2020	80.5	Georgia Institution Course CERTIFICATE """ """ """ """ """ """ """
12	Mechanics of Materials II: Thin- Walled Pressure Vessels and Torsion	GEORGIA INSTITUTE OF TECHNOLO GY	17 th Sept 2020	89	COURSE CERTIFICATE To use the Course of Certificate Certificate Certificate Umashankar M In membershed to Materials In This-Walled Pressure Versels and Terrison and membershed to find the Course of Thomas of Tho

Events attended:

Sl. No.	Name of the conference	Place	Date	Remarks
1	One week AICTED Sponsored short terms Technical program series 4 to 4 "Introduction to Tribology and surface Engineering"	Saintgits College fo Engineering, Kottayam, Kerala	23rd to 28th Nov 2020	SAINTGITS COLLEGE OF ENGINEERING (AUTONOMUS) KOTTAYAM, KERALA DEPARTMENT OF MECHANICAL ENGINEERING ACTE SPONSORED SHORT TERM TRAINING PROGRAMME Certification of Participation This is to certify that Hr. N. UMASHANKAR of K. S. INSTITUTE OF TECHNOLOGY. No. 14, Regimenshible, Kenshiper 14th Read, Brigather - 350 109. has pricipated in the 6-Day (One Wood) All bulk Council for Technology. Brigate - 360 109. has pricipated in the 6-Day (One Wood) All bulk Council for Technology Engineering Types and ETT - 360 100. The Charles of the Council Boart Term Training Programme (STT) Series on RECENT ADVANCES IN TRIBOLOGY AND SURFACE ENGINEERING Series 4 of 4 - Soffice Congression and Treatments in Tribology. Organization by the Council of Department of Terminal Terminal Processing of Terminal Series of Terminal Council o
2	One week AICTED Sponsored short terms Technical program series 3 to 4 "Introduction to Tribology and surface Engineering"	Saintgits College fo Engineering, Kottayam, Kerala	12th to 17th Oct 2020	SAINT GITS COLLEGE OF ENGINEERING (AUTONOMUS) KOTTAYAM, KERALA DEPARTMENT OF MECHANICAL ENGINEERING AICTE SPONSORED SHORT TERM TRAINING PROGRAMME Certification of Participation This is to certify has Po. Ps. UNBAINANCAR of K. S. INSTITUTE OF TECHNOLOGY, Biosphare has purposaged in the Act Office Visual of India Council for Technol Education (ACTE), then Debt supervised whole ident Term Training Programma (ACTE), the Debt supervised whole ident Term Training Programma (ACTE), the Debt supervised whole ident Term Training Programma (ACTE), the Debt supervised whole ident Term Training Programma (ACTE), the Debt supervised whole ident Term Training Programma (ACTE), the Debt supervised and Tribulage in Industry, originated by the Disparame of Helbarical Engineering of Issages College of Engineering Leasurys from 12" to 17" Octobro, 2020. Prod. (Dr.) Jason Charlin Issas Dr. Osadia Press Kindy Prod. (Dr.) Jasob T Verglass Prod. (Dr.) jasophharing Prod. C Proceedings of Control Contr

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3	One week AICTED Sponsored short terms Technical program series 2 to 4 "Introduction to Tribology and surface Engineering"	Saintgits College fo Engineering, Kottayam, Kerala	14th to 19th Sep 2020	SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS) KOTTATAN, KERIAA DEPARTMENT OF MECHANICAL ENGINEERING AICTE SPONSORED SHORT TERM TRAINING PROGRAMME Certification of Participation That is to cavily due Mr. M. UMASSIANKAR of K. S. INSTITUTE OF TECHNOLOGY to provinged to the A Doly (Dr. Wood) A finish Country of Training Education (ACTE, New Code) speaced adules than Term Training Programme (STT) Serve on RECENT ADVANCES in TRAINING Programme (STT) Serve on RECENT ADVANCES in TRAINING Comparison to Applied Training. Comparison to 16" to 17" Inspectable. 2005. Frot (Dr.) passo Charine Itsus Dr. Causton Press Kondy Prof. (Dr.) passo Charine Itsus STTP Coordinator Training Frot (Dr.) passo Charine Frot (Dr.) passo
4	One week AICTED Sponsored short terms Technical program series 1 to 4 "Introduction to Tribology and surface Engineering"	Saintgits College fo Engineering, Kottayam, Kerala	17th to 22nd Aug 2020	SAINTGITS
5	One week FDP on " Recent Advances & Trends in Mechanical Engineering & Materials Science	KSIT	27th to 31st July 2020	K. S. INSTITUTE OF TECHNOLOGY (Alliand to VII. Megra, Approachly AVIII. No Enth & Aurosidely NAKI) (Alliand to VII. Megra, Approachly AVIII. No Enth & Aurosidely NAKI) (Account of the Avii Control of the
6	Five Day's FDP on " Advances & Research in Mechanical Engineering	KSSEM	20th to 24th July 2020	K.S. SCHOOL OF ENGINEERING AND MANAGEMENT # 15, Mallasandra, off. Kanakapura Road, Bengaluru 560109 Certificate of Barticipation This is to certify that Mr. Uma Shankar of K.S. Institute of Technology has attended a 5 day online Faculty Development Programme on "Advances and Research in Mechanical Engineering," organised by Department of Mechanical Engineering, KSSEM from 20/07/2020 to 24/07/2020. Chief Coordinator De Joolin J.N. Head of the Department of Mechanical Engineering, Technology and Development Dev
7	One week FDP on " Advances Mechanical Engineering "	Jyothy Institute of Technology	11th to 15th July 2020	Jyothy Institute of Technology ciirc® WHENDERD WAS ADMINISTRATION OF THE ADMINISTRATION