



DR.G.Parameshwara
Chancellor, SSAHE, Tumkur.



Dr.P.Balakrishna Shetty
Vice Chancellor, SSAHE, Tumkur.



DR.M.Z.Kurian
Registrar, SSAHE, Tumkur.



DR.M.S. Raviprakash
Principal, SSIT.



DR. H.V. Jayaprakash
Editor

Journey begins... reaching our destination

Editors' Message

Dear Researchers, Every once in a while, there comes a moment in our journey of life, when, while treading unknown, uncharted paths we have to stop and ascertain whether we are going in the right direction (since we don't have Google Maps to help us always!!). This small pause plays the crucial role of confirming the path that we have taken. What also becomes important is to think of alternatives, if we get the feeling of being in the wrong path for reaching our destination. Paulo Coelho calls such people the 'Warriors of Light'.

He mentions how they carefully study the position that they intend to conquer, and no matter how difficult the objective, they always find a way of overcoming obstacles. While seeking out alternative paths, they sharpen their swords and try to fill their heart with the necessary determination to face the challenge. Waiting for the ideal moment will never allow us to set off. Since it is impossible to foresee everything, a touch of "madness" is required to take the next step. Here, if travel is understood metaphorically then it could mean anything which involves movement and the need to reach a specific destination. Research is also a journey. Just like everything else around us,

knowledge, and the way it is understood, also keeps changing. Therefore, it becomes critical for us to keep reconsidering and reinforcing our thoughts and positions. With great minds and thinkers who were invited to share the fund of knowledge and the experience that they have gathered over the years. it was a truly enriching experience to understand different aspects of our respective disciplines as well as an improved understanding of "interdisciplinary". Hence, while retreat is commonly understood as withdrawing from a specific action/ destination, we should take Research Retreat as the continuation of an important process to accumulate the knowledge imparted and if necessary, rethink the course of our journey so that we may proceed towards our research destinations, better equipped.

As a Sri Siddhartha Academy of Higher Education University, we are sensitive to the role that we play in the researchers' work. We are always conscious of the need to create an eco-system which aids the positive movement of research and researchers. The Research Retreat was conceptualised with this aim in mind. An opportunity for all of us to come together, think together, evaluate and help each other with positive reinforcements. Happy travelling! Happy learning !! to you all.

Editorial Board

DR.M.S. Raviprakash
Chief Editor

Dr. H.V.Jayaprakash
Editor

Dr.B.T.Muddesh
Publications Incharge

Associate Editors

Dr. Tejaswini K.M

Dr. Ravikiran B.S

Dr. Manu S

Members

Dr. Manjunath C

Mr. Prasanna kumar M

Smt. Nirmala G

Smt. Sowjanya G.V

Mrs.Shilpa G.N

Smt. Ashwini K

Mr. Harish K.N

Mr. Praveen M

Mrs. Jyothi.C (Media Studies)



Engineering Physics



DR. M S RUDRESHA
Professor & Head
Department of Physics

Introduction

Engineering Physics forms the basis and integral part of present day modern institutes of science and technology. It is the discipline devoted to creating and optimizing engineering solutions through enhanced understanding and integrated application of physical, mathematical, scientific, statistical and engineering principles.

DR. M Nagaraja published a research paper in SCOPUS index journal. Synthesis and electrical properties of polyaniline-cerium oxide composites, Synthetic Metals, Vol. 270 (Dec-2020) 1165881-1165886, <https://doi.org/10.1016/j.synthmet.2020.116588>

Page Continue 05 >>

Department of Mathematics

About the Department

The Department of mathematics has come into existence since the inception of the institute in the year 1979. The department is equipped with qualified, self-motivated, academically oriented faculty members. As the strong knowledge of Mathematics creates an efficient Engineer. The faculty of the Department of Mathematics has been striving to address this need by teaching Engineering Mathematics Courses for both UG and PG courses by framing a demand driven syllabus.

The department had a research centre recognized by Kuvempu university till 2017. Now, the research centre is recognized by Sri Siddhartha Academy of Higher Education. At present the department has 8 full time faculty members having Ph.D. All Faculty members are actively engaged in teaching, research and other academic activities.

Membership in professional bodies: 1. MISTE 2. International Association of Engineers (IAENG). 3. Life membership in Indian mathematical Society. 4. Life membership in ADMA in India.



DR VENKANAGOUDA M GOUDAR
Professor & Head
Department of Mathematics

Introduction

The department of mathematics offers courses in Engineering Mathematics to the first, second year and third year UG students. First year PG students. The department is headed by Prof Venkanagouda M Goudar. He has nearly 25 years of rich experience in teaching and research. Presently there are two highly distinguished Professors (including HOD), 3 Associate Professors and 3 Assistant Professors in the Department.

On the Eve of National Mathematics Day Celebration-2020
DEPARTMENT OF MATHEMATICS ORGANIZED

Webinar
On
"SRINIVAS RAMANUJAN AND HIS CONTRIBUTIONS"



Speaker
Dr. Venkanagouda M Goudar
Professor, Department of Mathematics
Sri Siddhartha Institute of Technology, Tumakuru

Department of Computer Science & Engineering



DR. M. SIDDAPPA
Professor & Head
Department of Com-
puter Science & Engi-
neering

Introduction

The vision of global community places us at the helm of express gateways of information technology. Having recognized the potential and benefits of Computerization, the department of Computer Science and Engineering was started in the year 1985. At present, the department runs Under Graduate and Post Graduate programmes in Computer Science and Engineering with an annual intake of 120 and 18 respectively.

These programmes aim at nurturing competitive, confident Computer Science Engineers with good skills in hardware and programming, with an intense exposure to operating systems and programming languages. The department has well qualified and experienced faculty members who trains the students on cutting edge technologies. The state of the art infrastructure facilities available in the department provides a congenial ambience for learning.

CSE Department Events

- Two Days Workshop on Cisco Academy Training on 30th November and 1st December 2020
- 2nd International E- Conference on Computer Networks and Soft Computing (ICCNCS) 2020 on 28th and 29th December 2020
- Webinar on "Joint Research as a Career to expand the Academic Horizons with Technology and Medicine" on 15th December 2020
- Webinar on "Transforming Healthcare with Data Analytics and Artificial Intelligence" on 25th November 2020.

Faculty Achievements

- 1 Dr. C D Guruprakash has received Best Paper Award in the 4th National Conference on Advances in Information Technology and Computing for the paper titled "Trust Evaluation in Cloud Environment by Swarm Separation Procedure" held on 22nd and 23rd December 2020 at Sreenidhi Institute of Science and Amp Technology, Ghatkesar, Hyderabad.
- 2 Dr. C D Guruprakash, application has been approved by Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India for Patent on Food Safety Warning System.
- 3 Dr. Achyutha Prasad N has published research article titled "Design of an embedded control scheme for control of remote appliances" in Journal of Advanced Research in Instrumentation and Control Engineering.
- 4 Dr. Achyutha Prasad N has delivered a talk on:
 - "Introduction to Wireless Sensor Networking Middleware" at Sapthagiri College of Engineering, Bangalore
 - "Fundamentals of Computer Science and Information Technology" on 16th Jan 2021 at Sri Siddhartha Academy of Higher Education, Tumakuru.
 - "The Next Wave- The Internet of Things" on 18th Jan 2021 at Sri Siddhartha Academy of Higher Education, Tumakuru.
- Dr. Achyutha Prasad N has reviewed Research article for:
 - International Journal of Human Computer Interaction and Data Mining
- 2nd International E- Conference on Computer Networks and Soft Computing (ICCNCS) 2020 held at Sri Siddhartha Institute of Technology, Tumakuru
- 5 Dr. B H Manjunath Kumar has presented a research article in the AICTE sponsored International E-Conference on Data Analytics, Intelligent Systems, and Information Security (ICDIIS'20) organized by Dr. Mahalingam College of Engineering & Technology, Pollachi.
- Dr. B H Manjunath Kumar has delivered a talk on "Artificial Intelligence and Machine learning for Healthcare" on 18th Jan 2021 at Sri Siddhartha Academy of Higher Education, Tumakuru.
- 6 Dr Dinesha L has reviewed Research article for 2nd International E- Conference on Computer Networks and Soft Computing (ICCNCS) 2020 held at Sri Siddhartha Institute of Technology, Tumakuru
- 7 Prof Bharath T S has delivered a talk on "Cloud Computing" at Sri Siddhartha Institute of Technology-IEEE Student Chapter, SSIT Campus
- 8 Prof Sahana Lokesh R has attended Two Days Workshop on "Intellectual Property Rights" on 7th and 8th Jan 2021 organized by Acharya IPR Cell and KSCST.

The department started in the year 1983 with sanctioned intake of 40 students. All the faculties are Doctorates. The staff to student ratio is 1:11. Average teaching experience of the faculty is 28 years. The faculty are actively involved in research work and publishing

papers in International conferences and journals. All the students are exposed to industries through Industrial visits, Project work and technical talk by industry professionals. The students are encouraged to participate in extra and co curricular activities. The department has good infrastructure in the form of labs, class

rooms, seminar hall and workshops. The curriculum caters to needs of the industries and society. The department is having MOU with Tenex Karanth Auto Engineering, Tumkur where students can visit this industry, carryout project-work and internship which will be helpful in their professional career.

Department of Chemistry

About the Department



DR. K. SUNIL
Associate Professor &
Head, Department of
Chemistry
are Doctoral de-
gree holders and
continuing their
research work in

The Department of Chemistry is headed by Dr. K. Sunil and supported by 3 faculties with a vision to provide the knowledge and understanding of latest developments in Science, so that the students can explore it for the development of Technology. All



their respective fields. The Chemistry laboratory is spacious with ample light and ventilation and has a provision to accommodate 24 students to experiment at a time. The Department faculties published more than 50 Research articles in both International and National Journals. Many Workshops and Conferences are also organized. The faculty members are guiding the research scholars in the different fields under SSAHE. Eight members have received the doctoral degree under the guidance of Chemistry faculties at VTU and SSAHE. 12 Research scholars are pursuing their Ph.D at SSAHE in the fields like Medicinal fields, Corrosion, Chalcones, Schiff's base, Polymers etc.

A KCTU project of Rs. 42.10 lakhs is running under Dr. K Sunil, the Principal Investigator, on the medicinal applications.

Awards/ Recognitions/ Achievements:

1. Adarsha Vidya Saraswati Rashtriya Puraskar National Award of Excellence-2019. Glacier Journal Research Foundation Global Management Council on 22nd December 2019, Ahmedabad.
2. Innovative Researcher & Dedicated Academician Award-2020. The Society of innovative Educationalist & Scientific Research Professional. Accredited with Innovative Scientific Research Professional, Chennai. on 20.02.2020.

Other achievements:

NCC Officer at Sri Siddhartha Institute of Technology, Maralur, Tumkur.

Papers published in Journals

- 1) Madan N, Sunil K, Yamuna I. K, Chethan Prathap. K. N and Lokanath N. K. Structural Investigation, Hirshfeld Surface Analysis And Dft Calculations of (E)-3-(2-Chlorophenyl)-1-(2-Fluoro-4-Methoxyphenyl)Prop-2-En-1-One. Journal of Critical Reviews 7 (18) (2020) 3754 – 3763
- 2) Shanthala H. K, Jayaprakash H. V., Muniganti radhakrishna, Jjaswanth gowda B. H., Karthika paul, S. J. Shankar, Mohammed gulzar ahmed, Sanjana A. Enhancement of solubility and dissolution rate of acetylsalicylic acid via co-crystallization technique: a novel asa-valine cocrystal. International Journal of Applied Pharmaceutics ISSN- 0975-7058 Vol 13, Issue 1, 2021.

Chemistry



Department of Industrial Engineering and Management



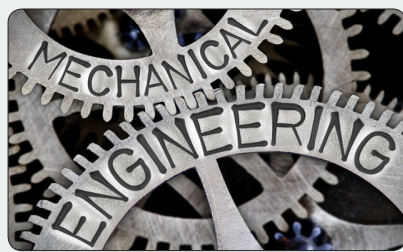
DR LAKSHMINARASIMHAN S N
Professor & Head, Dept of IEM.

Department of Mechanical Engineering



DR. R. HARISH KUMAR

**Professor & Head
Department of Mechanical
Engineering**



About the Department

- Established in 1979 along with the Institute.
- NBA Accredited Thrice during the Year 2003, 2008, 2012.
- Research facilities available in the area of Materials & Automotive Engines.
- Good overall infrastructure, Highly experienced staff, & High Staff Retention rate.
- Two PG Courses offered – M.Tech. (Product Design & Manufacturing and Thermal Power Engineering).
- MOU's Signed with KASSIA and Micromatic Machine Tools Ltd.
- Total No. of Ph.D.'s from Research centre - 20.
- R & D Projects Completed – DST (01), DSIR(02), 3rd Party Inspecting Ongoing.
- Patents obtained – 01, Filed – 01.
- Publication – 100 Refereed Journals Publication.

Introduction

The department of Mechanical Engineering was established in the year 1979 and its undergraduate program B.E.(Mech) is recognized by AICTE. The department has well equipped laboratories and is blessed with highly qualified, experienced & dedicated faculty. It has facilities for materials research and automotive research related to combustion, emissions and performance. It has successfully executed several industrial consultancy projects funded by organizations like Department of Scientific & Industrial Research(DSIR), Department of Science and Technology(DST), Karnataka Pollution Control Board to name a few. Striving for academic excellence by imparting quality technical education we also mould other essential human traits like discipline, moral values, leadership qualities in our graduate students enabling them to become competent engineers by the end of their course. The department also offers a post graduate program M.Tech(Thermal Power Engineering, Product Design and Manufacturing).

Flash News

- Dr. Batluri Tilak Chandra, Assistant Professor, Department of Mechanical Engineering has been awarded as a "Young Researcher Award-2020", by the Institute of Scholars.
- Dr. Batluri Tilak Chandra, presented research article on "A study on effect of Chilling on Dry Wear Characteristics on Aluminium A356 Reinforced with Hematite Metal Matrix Composite", International conference on Frontiers in Engineering Science and Technology (ICFEST-2020) at Yenopaya Institute of Technology, Moodbidri, Mangalore on 18th and 19th December 2020.

Department of Electrical and Electronics Engineering

Accredited by NBA, New Delhi in Tier-1 for Six Years (2017-2023)

Sri Siddhartha Institute of Technology (A Constituent College of SSAHE, a Deemed-to-be University)



DR. L. SANJEEV KUMAR

**Professor & Head
Department of Electrical and Electronics
Engineering**

Introduction

The moto of Electrical and Electronics department is to be a catalyst in imparting quality education and conducting valued research for the benefit of society. Historically, the field of electrical engineering is one of the most important engineering disciplines that have changed the course of the world.

The department strives to prepare its students to be independent and innovative. The environment of the department is conducive to academic growth of its faculty and students. The objective of department is to equip students with techniques to become providers of innovative and indigenous solutions. The discipline of E&EE has been striving towards providing a vibrant atmosphere for students in diverse areas of Electrical Engineering. Its programs are designed to prepare students for technical excellence.

The department offers a vibrant environment for education and research in electrical engineering. Our mission is to provide quality education in the field of Electrical and Electronics Engineering and help the students to design and develop products and practical solutions for problems in public and private sectors. Department of Electrical Engineering is currently of-

fering B.E. in Electrical and Electronics Engineering (E&EE), M. Tech. in Computer Aided Industrial Drives and Ph. D. in various areas of Electrical Engineering.

Electrical & Electronics Engineering program started in the year 1980 with an intake of 40, enhanced to 50 in 1994, 60 in 2001 and then to 120 in 2018. The Program is accredited by the National Board of Accreditation (NBA) in Tier 1 and consecutively accredited since 2004.

Since its inception, this department has contributed significantly to the growth of Electrical Engineering education and research in India. Many alumni of the department have distinguished themselves in academic institutions, research laboratories, industries and government organizations, both in India and abroad.

The Department has online access to IEEE-Xplore digital library, Springer and other online journals. Software like MIPOWER, MATLAB, PSPICE, PSIM and OMICRON are available with the Department in order to accelerate the research. Laboratories are fully operational and well equipped with latest equipment's to make the students understand the practical aspect of electrical science.

Short Term Training Programme - 2020

One week Short Term Training Programme (STTP) on Smart City: Recent Developments in Smart City (SMART-2020) has been sanctioned by AICTE, New Delhi during August 2020 and an amount of Rs. 4,08,667.00 (Rs. Four lakh eight thousand six hundred and sixty seven only) has been released to conduct the STTP through OFFLINE mode and the participants shall be faculty from AICTE recognized engineering and polytechnic institutions and persons working in industry across India.

Further, due to COVID-19 pandemic, the STTP was restructured to conduct through ONLINE mode in number of phases as per the instructions and guidelines given by AICTE, New Delhi during September 2020. Dr. G Parameshwara, Hon'ble Chancellor, Sri Siddhartha Academy of Higher Education (SSAHE-a Deemed-to-be University), Secretary, SSES is the chief Patron. Dr. P Balakrishna Shetty, Hon'ble Vice-Chancellor, SSAHE, Dr. M Z Kurian, Registrar, SSAHE, Dr. M S Raviprakash, Principal, SSIT are patrons. Dr. R Nagaraja, Managing Director, Power Research and Development Consultants (P) Limited (PRDC), Sri. B T Rangaswamy, MD & CEO, Tumakuru Smart City Limited (TSCL), Dr. L Sanjeev Kumar, Professor and HoD, Dr. B Rajesh Kamath and Prof. K L Ratnakar, Professors were advisory committee members.

Dr. G S Sheshadri & Sri. N Pradeep as Coordinator and Co-coordinator. The resource persons were from Indian Institute of Science (IISc), Central Power Research Institute (CPRI), Karnataka Power Transmission Corporation Limited (KPTCL), Tumakuru Smart City Limited (TSCL), Power Research and Development Consultants (P) Limited (PRDC) & Numocity Technologies. In this context, the STTP was scheduled to conduct in three phases during November and December 2020. Brochures for all the three phases were given wide circulation across nation.

The first phase of SMART-2020

was conducted during 23rd to 28th November 2020 with Dr. R Nagaraja, Managing Director, Power Research and Development Consultants (P) Limited (PRDC), Bengaluru as Chief Guest. He inaugurated the programme on 23rd November 2020 and delivered keynote address on Energy Solutions for Smart Cities. Dr. P Balakrishna Shetty, Hon'ble Vice-Chancellor, SSAHE, Dr. M Z Kurian, Registrar, SSAHE, Dr. M S Raviprakash, Principal, SSIT, Sri. Nagendra S, Engineer, TSCL and other dignitaries shared the dais. Dr. G S Sheshadri welcomed all and Sri. N Pradeep proposed vote of thanks. Participants from various states across nation participated and e-certificate was issued to all successful participants.



Department of Electrical and Electronics Engineering

DEPARTMENT ACTIVITY MONTHLY REPORT

<< December 2020 >>

NAME	DATE	TOPIC	ORGANIZATION
Purnima P S Gurunandan P H	30 th November & 1 st December 2020	Attended CISCO Academy Training workshop	Netalla Innovations Pvt.Ltd., and CISCO Bangalore, Department of CSE, SSIT, Tumkur
Shilpa G N Nataraja C	7 th to 11 th December 2020	Attended online FDP on Personal & Professional Excellence	AICTE Training and Learning (ATAL) Academy. IPS Academy, Institute of Engineering & Science, Indore.
Dr. G S Sheshadri	7 th to 12 th December 2020	Conducted one week online AICTE Sponsored STTP phase-2 on Smart City	Department of E&EE, SSIT, Tumkur.
D V Venugopal Chavan S K Girish K R Jagadisha	7 th to 12 th December 2020	Participated in AICTE Sponsored STTP phase-2 on Smart City	Department of E&EE, SSIT, Tumkur.
Dr G S Sheshadri and Pradeep N	7 th December 2020	Short term load forecasting in power system using multi- kernel support vector regression.	Paper Published in International journal of current Engineering and scientific research(IJCESR)
Dr. G S Sheshadri Shri Harsha J B S Yogananda	21 st to 26 th December 2020	Conducted one week online AICTE Sponsored STTP phase-3 on Smart City	Department of E&EE, SSIT, Tumkur.
Dr. L Sanjeev Kumar	28 th to 29 th December 2020	Technical session chair at 2 nd International e-conference on computer networks and soft computing.	Department of CSE and ISE, SSIT Tumkur.

Page Continue from 03>>

The second phase of SMART-2020 was conducted during 7th to 12th December 2020 with Dr. J Sundara Rajan, Additional Director (Rtd.), Central Power Research Institute (CPRI), Bengaluru and Senior Member & reviewer for IEEE transactions on Dielectrics and Electrical Insulation and also IET & Elsevier Journals as Chief Guest. He inaugurated the programme on 7th December 2020 and delivered keynote address on Development of Smart Cities: R&D Challenges and Opportunities for the Power Sector. Dr. M Z Kurian, Registrar, SSAHE, Dr. M Siddappa, Dean (Academics), Dr. L Sanjeev Kumar, HoD and other dignitaries shared the dais. Dr. G S Sheshadri, Coordinator welcomed all and Co-Coordinator Sri. N Pradeep proposed vote of thanks. Participants from various states across nation participated and e-certificate was issued to all successful participants.

The third phase of SMART-2020 was conducted during 21st to 26th December 2020 with Prof. D Thukaram, Professor (Rtd.), department of Electrical Engineering, IISc, Bengaluru and Senior Member, IEEE as Chief Guest.

He inaugurated the programme on 21st December 2020 and delivered keynote address on Developments in Power Sector – Smart Grid. Dr. M Z Kurian, Registrar, SSAHE, Dr. M S Raviprakash, Principal, SSIT, Dr. L Sanjeev Kumar, HoD and other dignitaries shared the dais. Dr. G S Sheshadri, Coordinator welcomed all and Co-Coordinator Sri. N Pradeep proposed vote of thanks. Participants from various states across nation participated and e-certificate was issued to all successful participants.



Award in memory of DR.Satturu Raghavendra Rao by his son Mr. Sanjeev Narayan Rao, Alumnus of Department of Electrical and Electronics Engineering, was presented during Alumni Meet 2020. DR.B.Rajesh Kamath gold medal award was presented to Kumar Raghavendra G.B (2016-2020), CGPA 9.38 And Prof.K.L Rathnakar gold medal award was presented to Brunda S (2016-2020), CGPA 8.95

EEE

EVENTS AND PAPER CLIPPINGS



Inaugural function of Phase-1 on 23rd November 2020. Co-ordinator, Dr. G S Sheshadri. Felicitation to Chief Guest, Dr. R Nagaraja, Managing Director, PRDC, Bengaluru.



Valedictory function on 26th December 2020, Dr. M S Raviprakash, Principal delivering Presidential address



Prajavani, Kannada daily, 24th November 2020



Praja Pragati, Kannada daily, 24th November 2020



“National Energy Conservation Week and National Energy Conservation Day-2020”

was observed in Sri Siddhartha Institute of Technology (SSIT) campus, Tumakuru in association with Karnataka Renewable Energy Development Limited (KREDL, A Govt. of Karnataka Undertaking). Pradeep N, Assistant Professor Co-ordinated the event on 18th and 19th December 2020.

Engineering Physics

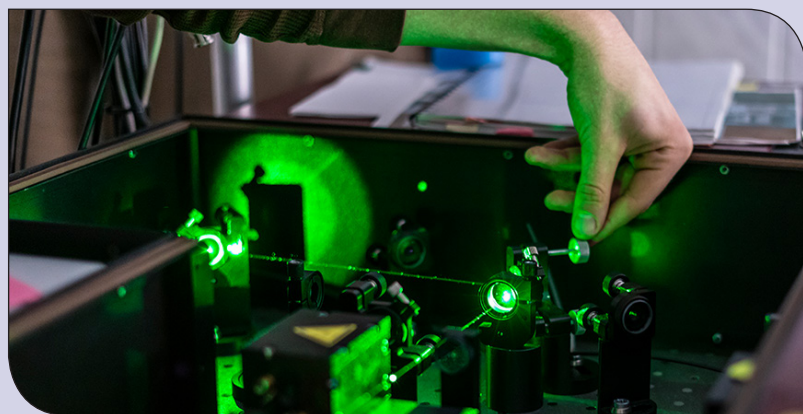
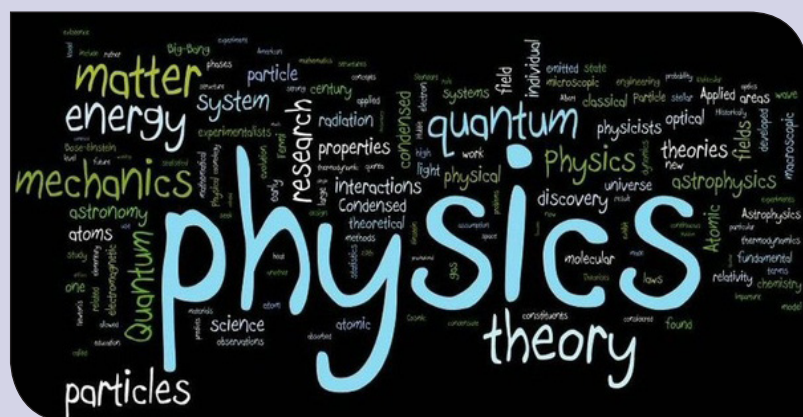
About the Department

Page Continue from 01>>

The Department of Physics offers courses in Engineering Physics to the first and second semester B.E students and the course is common to all branches of engineering. The department functioning since the inception of the Institute. It is one among the subjects to be granted permission in the research center to pursue research. The department stands focused to its ideals in imparting knowledge in physics and emphasizing its importance along with relevance to future engineering professionals. The department has contributed towards the institute's cause and growth by imparting quality education and carrying out successful research in novel frontiers of basic and applied science. The course curriculum both in theory and practical are periodically

upgraded as per the guidelines.

The Department is supported by well qualified, experienced and dedicated faculty and staff with a vision to provide the knowledge and understanding of latest developments in Science, so that the students can explore it for the development of Technology. The faculty members are actively involved in academic activities and research work in their respective fields. The department has good infrastructure that includes a spacious laboratory with ample light and ventilation, well equipped with advanced experimental apparatus required for the curriculum. The faculty members train the students to handle the equipment as well as help them have a profound base of physics that is relevant to all branches of engineering and technology.



Department of Information Science and Engineering



About the Department

The Department of ISE) was established in the year 2000 with an objective of producing high-quality professionals to meet the demands of the emerging field of Information Science and Engineering. The department is working with the vision to provide knowledge to the young aspirants in the field of Information Technology, who are capable to address the needs of society and industries with strong ethics to build a better and prosperous nation.

The department had started with an intake of 60 and the intake has been increased to 90 in the year 2013. In the year 2020 the intake is increased to 120. The department periodically organizes Conferences, Symposiums, Seminars and Faculty Development Programmes to stimulate the inherent intelligence of student community enabling them for lucrative placement. Faculty use state-of-art teaching aids to ensure better content delivery and facilitate greater student interaction. The department is committed to provide quality education, research and overall excellence.



DR. K KARUNAKARA
Professor & Head
Department of
Information Science
and Engineering

Doctorates

Prof. Chethan B K Completed PhD in VTU in December -2020 on the topic "Mobile Agents Security in Mobile Ad-hoc Networks" under the guidance of Dr. M Siddappa and Co-guide Dr H S Jayanna.

Webinars

Publications and Presentations

Rashmi H C presented the paper "Security considerations in energy efficient resource constrained device environment: A Survey" in the 2nd International e-Conference on Computer Networks and Soft Computing (ICCNCS2020)" on 28th & 29th December 2020 jointly organized by department of CSE and ISE at Sri Siddhartha Institute of Technology, Tumkur.

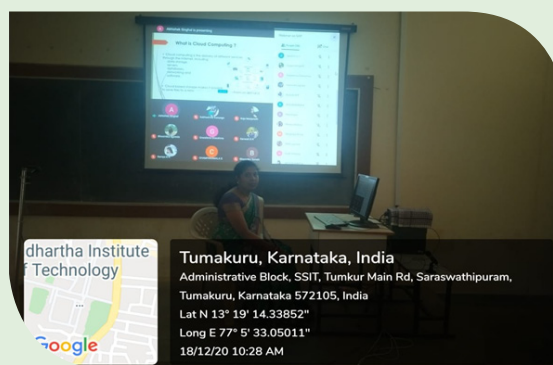
EVENT	Resource Person	Date
Webinar Series on Machine Learning in Real life	Mr Rajesh P Hegde, Co Founder, Dblue Inc Mr Ramjee Ganti, Co Founder, Dblue Inc	05/12/2020
Webinar on SAP Basis and Hana	Mr. Abhishek Singhal Senior SAP BASIS Consultant, SAP Labs, Bengaluru Mrs. Subhashree Kanungo Senior SAP BASIS Consultant, SAP Labs, Bengaluru	18/12/2020



Webinar Series on Machine Learning in Real life



Webinar on SAP Basis and Hana



"2nd International e-Conference on Computer Networks and Soft Computing (ICCNCS2020)" on 28th & 29th December 2020 jointly organized by department of CSE and ISE at Sri Siddhartha Institute of Technology, Tumkur.



The department has Organized a Rally of National Energy Conservation Week on 18/12/2020.

Department of Electronics and Telecommunication



DR. K B SHIVAKUMAR

Professor and Head

Department of Electronics and Telecommunication Engineering

The Department of Electronics and Telecommunication Engineering, with a unique history of thirty years, moulds the brightest Indian minds to be innovators, and technology leaders, who contribute in broadening the knowledge paradigms throughout the globe. The creation of innovators and leaders happen through the way our department's faculty intrigues the undergraduate students in electronic devices, circuits, signal processing, digital systems, electromagnetics, quantum electronics, microwave systems, communication theory, communication systems, wireless systems, MIMO, pattern recognition, machine learning, vision, medical imaging, biomedical

engineering and many other related areas. We share our findings with the society by maintaining a strong link with the industry through six MoU's with the industry on communication, electronic systems, and biomedical engineering to take up technically challenging projects. The department has well equipped laboratories and well qualified faculty (4 Doctorates) and experienced non-teaching staff. Thus, excelling in teaching and research. Our department is on the mission of reshaping the technological landscape of India while contributing to the body of knowledge. The department established in 1991 with an in-take of 30 and in the year 2006, the department moved to its

new building from the earlier location in the Main building. The majestic three storied building in the North-west-side of the main building is affectionately known as the 'Scholar building' and is very much loved by the students due to the modern facilities. The enhancements paved way to increase the annual intake of undergraduates: immediately to 60 which has been accredited by NBA for three times consecutively since 2004. Recently we had organized an International Seminar on Artificial intelligence in Wireless Communications having international guest speaker, Dr Anand Nayyar, Professor, Researcher & Scientist, Duy Tan University, Vietnam and a National Conference on Emerging Trends in Engineering Science for Future Technology -NCETESFT 2020 in association with Technical Institute for Engineers (TIE) which published its technical research papers in IJERT and a UGC Care listed journal.



DR. RAJU A S

**Associate Professor and Head
Department of Medical Electronics**

Department of Medical Electronics

Introduction

The department of Medical Electronics was established in the year 2002 to expand its academic horizon to the fast-growing field of healthcare technologies. The college has laid its focus to impart education in the field of medical electronics and life sciences to translate it into real world applications. The current intake for the BE programme is 30.

1. The department has organized webinar on "Implementation of Integrated Learning Approach in Biomedical Measurement and Instrumentation" which was held on 07/01/2021 with the resource person Dr. D K Ravish, Asso. Prof., Department of Medical Electronics, Dr. Ambedkar Institute of Technology, Bengaluru.
2. The department has organized webinar on "Medical Devices and its Future Trends with Opportunities" which was held on 11/01/2021 with the resource person Er. Nitturi Naresh Kumar, Scientist- D, Kalam Institute of Health Technology & National Co-coordinator, Indian Biomedical Skill Consortium, Vishakapattanam, Andhra Pradesh.
3. Dr. Guruprasad S has given a guest lecture on "Applications of Signal Processing" held on 11th December 2020 in New Horizon college of Engineering, Bangalore.
4. Dr. Guruprasad S was a reviewer in 6th International Conference on "Emerging Research in Computing, Information, Communication and Applications" held from 25th to 28th September at NMIT, Bangalore
5. The department has conducted Industry Interface Program in association with Siemens on 24th November 2020.
6. Students of the department have actively taken part and cleared SWAYAM courses.

Objectives of the Department

- * To apply latest electronic, instrumentation and computer skills and application for the betterment of medical field to serve mankind.
- * To serve as a valuable resource for industry and society, enhancing the human values and to sustain the heritage of nation. It also provides students with fundamental knowledge, interdisciplinary problem solving skill and confidence required to excel in their chosen profession and be leaders in a global environment.
- * The course is divided in to four years spanning with 8 semesters with practical training and theoretical coaching. It provides unique job opportunities for younger generation in biomedical industries.
- * The department of Medical Electronics Engineering is a combination of engineering and medical sciences with applications of electronics and computer science in medicine.
- * The department was started in the year 2002. the course includes electronics and communication engineering, basic concepts of human anatomy and physiology, medical signal acquisition, analysis and processing, principle of medical imaging, biomedical instrumentation, and study of artificial organs

The department of Medical Electronics Engineering is a combination of Engineering and Medical Sciences with the applications of electronics and computer science in medicine. The department was started in the year 2002.

and so on.

* Experts from different medical colleges and related medical industries are invited as guest lecturer to organize regular seminars/ technical talks related to the current trends in the Medical Electronics Engineering. Super Speciality hospital visits including SSMC are carried out as a part of academics.

* Students are also exposed to patient monitoring systems, biomedical equipments and radiology which includes X-rays, CT scan, Ultrasound, MRI and so on. Students are also engaged in different biomedical projects.

* The prime objective of Medical Electronics course is to apply latest electronics, instrumentation and computer skills and applications for the betterment of medical field to serve mankind.

* To serve as a valuable resource for industry and society, enhancing the human values and to sustain the heritage of nation. It also provided students with the fundamental knowledge, interdisciplinary problem solving skills and confidence required to exceed in their chosen profession and be leaders in global environment.

New AI based tool determines which covid-19 patient need hospitalization

Article

Corona virus disease 2019 (COVID-19) is a contagious disease caused by severe acute respiratory syndrome. The first case was identified in Wuhan, China, in December 2019. It has since spread worldwide, leading to an ongoing pandemic. Symptoms of COVID-19 are variable, but often include fever, cough, fatigue, breathing difficulties, and loss of smell and taste. Symptoms begin one to fourteen days after exposure to the virus

Most people develop mild to moderate symptoms while the remaining develop severe symptoms like dyspnea, hypoxia, or more than 50% lung involvement on imaging and 5% of patients suffer critical symptoms of respiratory failure. Around one third of the people who are infected with the virus

remains asymptomatic and do not develop noticeable symptoms at any point in time, but can spread the disease. Some patients amongst these has to be hospitalizes bases on the severity.

New study in the field determines which patient needs hospitalization based on Artificial Intelligence. The method considers multiple factors to predict the prognosis of individual patients with COVID-19 seen at urgent care clinics or emergencies. The tool was created by investigators at Massachusetts General Hospital. This tool can rapidly and automatically determine which patients are most likely to develop complications and need to be hospitalized. It recognizes the need for a more sophisticated method to identity outpatients at greater risk. The experts in neurology, infectious disease, critical

care, radiology, pathology, emergency medicine and machine learning designed the COVID-19 Acuity Score CoVA which demonstrated excellent performance in predictive which patients would fall in to these categories.

Studies showed that among 30 predictors including age, gender, COVID-19 testing status, vital signs, medical history and chest X-ray results- the top five were age, diastolic blood pressure, blood oxygen saturation, COVID-19 testing status and respiratory rate. The CoVA test is designed so that the automated scoring could be incorporated in to electronic medical record systems.

**- Mrs. Ashwini K
Asst. Prof., Department of Medical Electronics, SSIT, Tumkur.**

Department of Civil Engineering



DR.T.V. MALLESH

Professor and Head

Dept. of Civil Engineering

Introduction

Department of Civil Engineering was established in 1979 with an intake of 60.PG Programme (Computer Aided Design of Structures) was started in 2008 with an intake of 18.Intake of UG Programme was enhanced to 120 from 2018-19. Civil Engineering Department is Accredited by NBA during all visits 2004 (3Yrs), 2007 (3 Yrs), 2013 (3 Yrs) and June 2017- June 2023 (6 Yrs). Department has well qualified, experienced and dedicated staff members and also supported by good number of non teaching staff. The department has all the laboratories required to train the students as per the syllabi. The laboratories like Strength of Materials, Concrete, Highway, Geotech, Environmental, Fluid Mechanics and Survey were all established in early years of the department. Now a computer center is added, to train the students in the field of its application. The department also takes up consultancy work as well as testing of materials.

Workshop organised

Our Department successfully completed the AICTE sponsored online Short term training programme on Applications of RS and GIS. This programme success made our department to feel proud. All the staff members were involved for this success.Online STTP is conducted in three phase, first phase is from 19th October to 24th October, second phase from 23rd November to 28th November and third phase from 14th December to 19th December successfully. In this programme most of the resource persons from various reputed academic institutions, research organizations from India, Japan and USA. Some of the eminent resources persons were showed there interest for further interaction and collaborative works with our department. Following personalities are few of them.

1. Dr.Dwarkish G S, Professor, Dept. of Water Resources & Ocean Engineering, National Institute of Technology Karnataka, Surathkal, Mangalore.
2. Dr. M K Nagaraj, Professor (Retd), Department of Applied Mechanics & Hydraulics, National Institute of Technology Karnataka, Surathkal, Mangalore.
3. Dr. H. Ramesh, Associate Professor, Dept. of Water Resources & Ocean Engineering, National Institute of Technology Karnataka, Surathkal, Mangalore.
4. Dr. A Arunachalam, Senior scientist, ISRO Headquarters, Bengaluru
5. Dr.Pruthviraj U, Assistant Professor, Dept. of Water Resources & Ocean Engineering, National Institute of Technology Karnataka, Surathkal, Mangalore.
6. Mr.Pramit Kumar Deb Burman, Scientist 'C', Centre for Climate Change Research, Indian Institute of Tropical Meteorology, Pune, Ministry of Earth Sciences, Government of India.
7. Dr.Paresh Chandra Deka, Professor, Department of Water Resources & Ocean Engineering, National Institute of Technology Karnataka, Surathkal, Mangalore
8. Dr.BhupendraBahadur Singh, Scientist 'D', Centre for Climate Change Research, Indian Institute of Tropical Meteorology, Pune, Ministry of Earth Sciences, Government of India.
9. Dr.SaravananSubbarayan, Assistant professor, Department of civil engineering, National Institute of Technology, Tiruchirappalli, Tamil Nadu.
10. Dr.RajuAedla, Research Scientist (Remote Sensing), Kumamoto University, Kumamoto, Japan.
11. Dr.Ganasri B P, GIS Analyst, Dallas, Texas, USA.
12. Dr. M Arulraj, Scientist SF, NRSC/ISRO, Hyderabad.
13. Dr.ArunkumarYadav, Assistant professor, CMRIT, Bangalore

Details of journal / conference paper published

1. Smt.Roopa M, Assistant Professor, Department of Civil Engineering, has presented paper "Dynamic Analysis of Geodesic Structures" in "Civil Engineering Trends and Challenges for Sustainability CTCS-2020" Conference Organized by NMAMIT,Nitte, Karkala on 22nd and 23rd December 2020 and the paper is shortlisted for springer.

Invited Lectures and Chairmanships at National or International Conference / Seminar

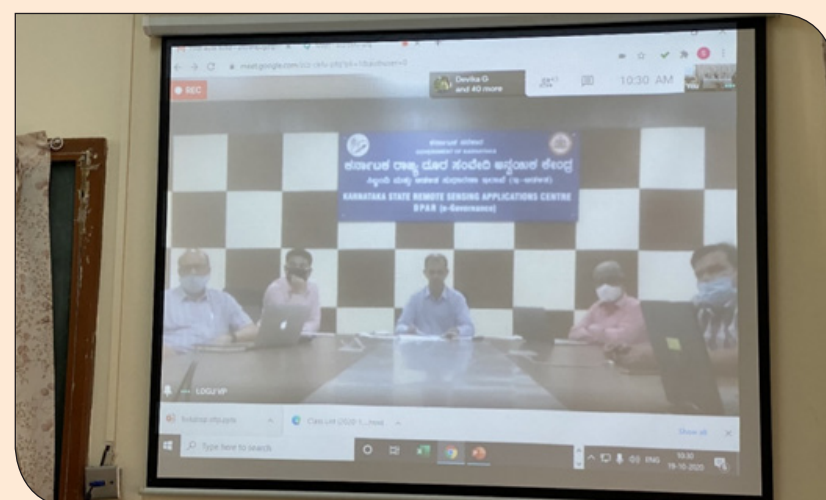
1. Dr. Muralidhar N delivered session on "Composite materials by using natural fibers for Sustainable Development" in National Student and Faculty Development Program on "Earth System Science for Society" Organized byPES Institute of Technology and Management, Shivamogga, from Nov 30th to Dec 5th 2020.
2. Dr. Muralidhar N was Chairperson for the International Conference on "Civil Engineering Trends and Challenges for Sustainability (CTCS 2020)" Organized byNMAM Institute of Technology, Nitte, on 22nd to 23rd December 2020.
3. Dr. Muralidhar N delivered Session on "Utilization of Agricultural WasteMaterial for Sustainable Development" in National Faculty Development Program on "SustainabilityEngineering" sponsored by ATAL/AICTE, Organized by CMRIT,Bangalore from 4th to 8th January 2020.

Achievements

1. Smt. Roopa M, Assistant Professor, Department of Civil Engineering, has submitted proposal for AICTE-RPS around 18.75 LACS on 30th December as a Principal Investigator.
2. Dr.Muralidhar N, Assistant Professor, Department of Civil Engineering, has submitted proposal for AICTE-RPS around 18.75 LACS on 30th December as a Co-Principal Investigator
3. Dr. Muralidhar N was Guest of honour for the National Student and Faculty Development Program on "Earth System Science for Society" Organized byPES Institute of Technology and Management, Shivamogga, from Nov 30th to Dec 5th.



Dr.Dwarkish G S, Professor from NITK Surathkal (online) as Guest of honour, during the inauguration of 3rd phase online STTP on Applications of RS and GIS.



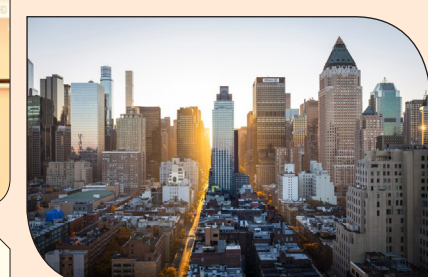
Dr.Prabhuraj (at centre)and his team from Karnataka State Remote Sensing Applications Centre (KSRSAC), Bangalore, during the inauguration of 1stphase online STTP on Applications of RS and GIS.



Dr. M K Nagaraj, Professor (Retd.) from NITK Surathkal as Guest of honour, during the inauguration of 3rd phase online STTP on Applications of RS and GIS.



Session delivered by Dr. Muralidhar N



Department of Electronics and Communication



DR. M Z KURIAN
Registrar,
Professor & Head
Department of
Electronics and
Communication

Introduction

The Electronics and Communication Department is accredited by the National Board of Accreditation (NBA) and All India Council for Technical Education (AICTE). Electronics has brought revolution in modern industries.

It is the backbone in miniaturizing the present day tools, gadgets with intelligence to produce highly talented, well-trained engineers. The department was started in the year 1980. The Department is running B.E course with the intake of 120. The department also running M.Tech courses in "VLSI & Embedded Systems" and "Digital Electronics". The Department is supported by well qualified and dedicated staff.

EVENTS

1. A webinar on "Blockchain Technology" was organized by Department of ECE, on 4th December 2020. Dr. Nalini, Professor, Department of CSE, NMIT, Bangalore was the keynote speaker in the Webinar.
2. Setu Bandha - Global Virtual Alumni meet was conducted in the SSIT campus on 13th December 2020. The faculty of ECE department have interacted with all the alumni present in the meet.
3. Department of Electronics and Communication has organized a Webinar on "Medical Image Segmentation Using Deformable Models" on 30th December 2020. Dr. D Jayadevappa, HOD, Department of Electronics and Instrumentation, JSSATE, Bangalore was the keynote speaker in the session.
4. Inauguration of all Ist year PG classes was held on 4th January 2021. Dr. M S Ravi Prakasha, Principal, Dr. M Z Kurian, Registrar, HOD Department of ECE, Dr. M Siddappa, Dean Academics and all the Department HODs addressed the PG students.
5. SSIT - IEEE Student branch has won "Outstanding Student Branch Website" Award from the IEEE Bangalore Section for the year 2020-21, was held on 10th January 2021.
6. Aishwarya S M, final year UG students has won the "Best SAC Volunteer Award" and "Fastest Member - Get Member Award" from IEEE Bangalore section, in recognition her Hard Work towards IEEE Bangalore section events was held on 10th January 2021.
7. The "Internet of Things" demonstration was organized at ECE department by Advanced Electronic Systems (AES), Bangalore was held on 12/01/2021 at Embedded Systems lab.

Webinar on "Block chain Technology"

- What is Block Chain.
- Block Chain expanded.
- Significance of Block Chain.
- Key Elements of Block Chain.
- Benefits of the technology.
- How Block Chain works and its applications.
- Research Openings in Block Chain Technology

Major participants for this program are the faculty members of SSIT Tumkur, NMIT Bangalore, CIT Gubbi, SIET Tumkur and final year students of ECE, SSIT.



Department of Electronics and Communication Engineering of Sri Siddhartha Institute of Technology, Tumakuru had organized a Webinar titled "Block Chain Technology" on 4th Dec 2020. Dr. Nalini N, Professor in Computer Science and Engineering, Nitte Meenakshi Institute of Technology, was the resource person for the Webinar Program. Dr. Nalini shared the insight on various aspects of "Block Chain Technology" and her discourse mainly included the following topics on "Block Chain Technology"

Dr.M.N. Eshwarappa, Prof, Dept. of ECE welcomed the dignitaries and the participants.

The Coordinator Dr. Vinutha C B, Asst. Prof., gave brief introduction about the Key note speaker Dr. Nalini N. Principal, Dr. M S Ravi Prakasha graced the program online. Registrar & Head of the Dept. ECE, Dr. M Z Kurian, Dr. Siddappa, Dean (Aca) was part of the function. Program was co-ordinated by Dr. Vinutha C B, Asst.Prof., Dept of ECE.Principal and Head of the Department appreciated the Department of ECE for the active involvement in hosting such activities. Head of the Department, ECE highlighted that in the upcoming years Block chain technology would become an essential part of business worldwide as well as its adoption in IOT for greater security. Dr. M. Siddappa stressed on the fact that teaching fraternity in the engineering colleges need to upgrade with the recent advances in the technologies by actively participating in such Webinars. This would help faculty members to update the curriculum structure as per industry requirements. Lastly, Prof. Divyaprabha, Asso. Prof., Dept. of ECE delivered vote of Thanks on behalf of Dept. of ECE., SSIT.

SRI SIDDHARTHA INSTITUTE OF TECHNOLOGY
(A constituent college of Sri Siddhartha Academy of Higher Education, Tumakuru, (Estd. 1979)
Kunigal Road, Maralur, Tumakuru - 572105, Karnataka, www.ssit.edu.in

Department of Electronics & Communication Engineering

Programs
• B.E (120 Intake)
• M.Tech
• Digital Electronics (18 Intake)
• VLSI & Embedded Systems (18 Intake)

Faculty strength
• 25 Faculty
• 8 Faculty with Ph.D
• 11 Faculty pursuing Ph.D

Research and Trainings
• 110+ publications in journals
• 180+ papers in conferences
• 30+ workshops for students enrichment
• 40+ workshops for faculty enrichment
• Internships to enhance students professional etiquette

Infrastructure
• 1 E-Learning Classroom
• 8 Digital classrooms
• Image Processing Lab
• VLSI & Microcontroller Lab
• Embedded Systems Lab
• Digital Electronics Lab
• Communication Lab
• Analog Electronics Lab
• Basic Electronics Lab

Our students involved in
IEEE
ISTE
Varsity Circle
NSS
NCC
Sports
Cultural teams

Our Alumni are at
Infosys, LM, NOKIA, Bosch, IBM, SAP, TCS, Wipro, Accenture, AEC, NASS, Capgemini, HCL, HP



Webinar on "Medical Image Segmentation Using Deformable Models"

The Department of Electronics and Communication Engineering is organized the webinar on Webinar on "Medical Image Segmentation Using Deformable Models" on 30/12/2020, Wednesday at 10am. The Speaker of this webinar is Dr. D Jayadevappa, Professor and Head of the Department of Electronics and Instrumentation Engineering at JSSATE, Bengaluru. In this webinar Dr. D Jayadevappa spoke about Medical image segmentation using deformable models. Image segmentation is an important step in image processing. Major advances in the field of medical imaging have provided physicians with powerful and non-invasive techniques to probe the structure, function and pathology of the human body. All the faculty members of the SSIT are the participants of the event.



Setu Bandha- Global Virtual Alumni meet was conducted in the SSIT campus on 13th December 2020. The faculty of ECE department have interacted with all the alumni present in the meet.