**SAINTGITS**
**COLLEGE OF ENGINEERING**
(AUTONOMOUS)
**DEPARTMENT OF ELECTRONICS ENGINEERING**

Programmes: Applied Electronics & Instrumentation
Electronics & Communication Engineering
Robotics & Automation

# NEWSLETTER

JULY 2021

## VISION OF THE DEPARTMENT

To be a model for academic excellence with international outlook in the realm of Electronics & Communication Engineering.

## MISSION OF THE DEPARTMENT

Impart analytical & technical skills in young minds to fortify the process of learning.

Equip them with state of the art technologies to meet growing challenges of the industry & have a successful career upholding ethical values.

## PROGRAMME EDUCATIONAL OBJECTIVES

PEO 1   Learn and adapt to the growing challenges in the Industry.

PEO 2   Have a successful professional career in Engineering & allied fields.

PEO 3   Inherit positive attitude to contribute as a professional, individually and in groups to meet societal needs. leadership.

## PROGRAMME OUTCOMES

PO 1   Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2   Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

PO 3   Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4   Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO 5   Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO 6   The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7   Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8   Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9   Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10   Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11   Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12   Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

## PROGRAMME SPECIFIC OUTCOMES

PSO 1   Ability to apply concept of Electronics and Communication Engineering knowledge to analyze engineering problems in the perceptive of Embedded systems, VLSI, Signal Processing and Communication.

PSO 2   Ability to design and develop electronic systems solution using relevant hardware and software tools.

PSO 3   Prepare a successful career and as an entrepreneur by solving the socio economic problems with innovative ideas in the electronics domain.
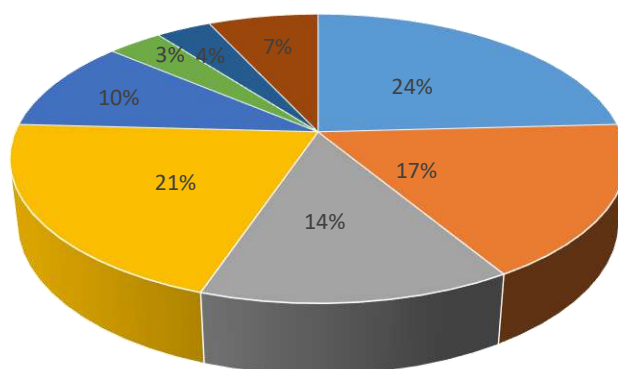
## ACADEMICS

| PG RESULTS | | |
|---|---|---|
| Batch | Semester | Pass% |
| KTU Batch | | |
| 2018-2020 VE | S4 | 100% |
| 2018-2020 TE | S4 | 100% |
| 2018-2020 RA | S4 | 100% |
| 2019-2021 TE | S2 | 100% |
| 2019-2021 RA | S2 | 100% |
| Autonomy Batch | | |
| 2020-2022 VE | S1 | 100% |
| 2020-2022 TE | S1 | 100% |
| 2020-2022 RA | S1 | 83.33% |

| UG RESULTS | | |
|---|---|---|
| Batch | Semester | Pass% |
| KTU Batch | | |
| 2016-2020 AEI | S8 | 85.71% |
| 2016-2020 ECE | S8 | 98.25% |
| 2017-2021 AEI | S6 | 62.50% |
| 2017-2021 ECE | S6 | 87.50% |
| 2018-2022 AEI | S4 | 38.80% |
| 2018-2022 ECE | S4 | 93.94% |
| 2019-2023 AEI | S2 | 83.30% |
| 2019-2023 ECE | S2 | 84.90% |
| 2019-2023 RB | S2 | 71.10% |
| Autonomy Batch | | |
| 2020-2024 ECE | S1 | 69.09% |
| 2020-2024 RB A | S1 | 48.65% |
| 2020-2024 RB B | S1 | 51.35% |

## Placement Statistics
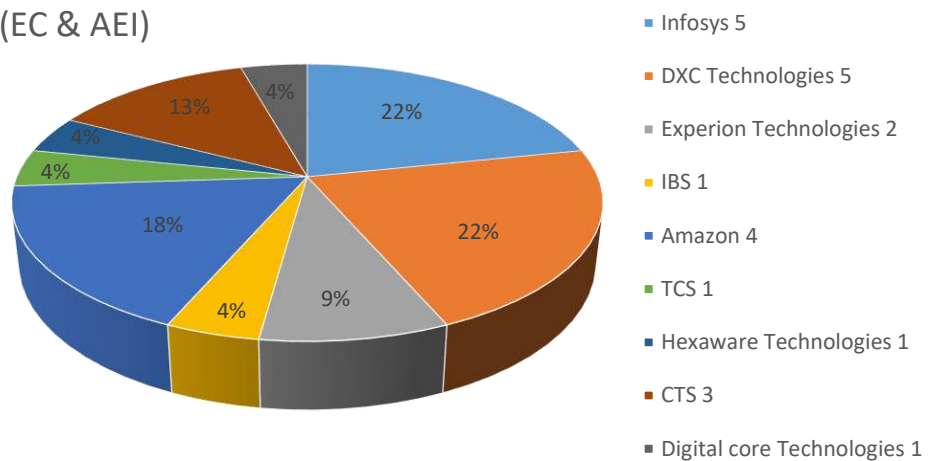


2017-21 Batch (EC & AEI)
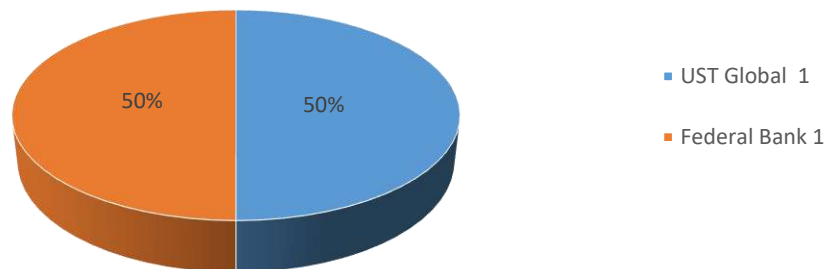
- UST Global  7
- TCS  5
- Infosys 4
- Quest Global 6
- Aspire NXT 3
- Planetspark 1
- Gadgeon 1
- 6D Technologies  2

## 2016-20 Batch (EC & AEI)



- Infosys 5
- DXC Technologies 5
- Experion Technologies 2
- IBS 1
- Amazon 4
- TCS 1
- Hexaware Technologies 1
- CTS 3
- Digital core Technologies 1

## 2019-21Batch M.Tech (TE & RA)



- UST Global  1
- Federal Bank 1

# TECHNICAL TALKS

o Department of Electronics Engineering in association with ASGEC organized a Motivational talk on Placements by Mr. Joel Abraham (2016-20) on 5th Sept 2020 at 7.00pm through Google Meet for the final (2017-21) and prefinal (2018-22) year students of ECE and AEI. Er. Dhanusha P B - ASGEC in-charge

o ASGEC of Department of ECE in association with Women's forum organized a webinar on the topic "Women's health with special reference to PCOS" as part of Ayush Gramam project, Pallom Block on 28th September, 2020 (7.30pm- 9.00pm) through Google Meet for all girl students and ladies' staff. 98 participants were attended. The guest speaker was Dr.

Vaheeda Rahman A, Senior Medical Officer, Govt. Ayurveda Dispensary, Pathanamthitta. Dr. Sreekala K S - Women's Forum charge and Webinar Coordinator, Er. Hanna Mathew - Coordinator, Er. Dhanusha P B - ASGEC in-charge

o Department of ECE, Saintgits College of Engineering in association with ASGEC conducted a webinar on the topic "Embedded Systems" by Mr. Abhilash Surendran, Senior Hardware Engineer, VVDN Technologies Pvt. Ltd., Kochi on 10th October, 2020 (7.00pm to 8.00pm) through Google Meet for the final year and pre final year students of ECE and AEI branches. Er. Dhanusha P B - ASGEC in-charge

## Add-on Courses

| Sl. No. | Batch | Title | Date | Faculty Involved |
|---|---|---|---|---|
| 1. | 2018-22 ECE | Add-on Course on "Introduction to Image Processing using MATLAB and IoT Product Development from the scratch" for S5 students | 1st to 3rd February, 2021 | Er. Roshni Oommen (Add-on coordinator) Er. Nishanth P R, Er. Chinn Mohanan, Er. Jyothish Chandran G (Resource Persons) |
| 2. | 2019-23 ECE | Add-on Course on "Python Programming" for S3 students | 8th to 12th February, 2021 | Er. Roshni Oommen (Add-on coordinator). Er. Nithin Prince, Er. Justin Mathew, Er. Veena Kumar and Er. Aneena Ann of CSE dept. (Resource Persons) |
| 3. | 2019-23 AEI | Add-on Course on "Electronics, Design and Automation" for S3 students | 19th to 23rd February, 2021 | Er. Anish Thomas, Er. Rizwana Akbar (Add-on coordinators). Er. Anish Thomas, Er Harinarayanan N M G (Resource Persons) |

## R & D Activities

**Projects sanctioned for funding:**

o CUSAT CATDM (Center for Advanced Technologies in Disaster Management) - Geojit (Funding Agency) (Student Project) – 1 project - SIWAR, A Robust Teleoperated Robot for Hospital isolation Wards - Er. Harinarayanan Nampoothiri M G (Principal Investigator), Anjana B Nair (2017-21 AEI), Boaz Babu George (2019-21 MTech RA), Shebin Reji (2016-20 AEI), and Georgin James (2016-20 AEI) (Student Members). An amount of Rs 27,000/- was sanctioned on 14th September, 2020 (Project Period – 1 year). Completed the project practically but not settled the fund.

o AICTE - MODROB - Modernisation and Removal of Obsolescence - MODROB (Lab to be funded: VLSI Lab) - "Modernisation of VLSI Lab:

Software Defined Radio (SDR) - Open multimedia application platform" - Dr. Riboy Cheriyan (Coordinator) – An amount of Rs 7,35,294/- was sanctioned on 20th July, 2020 (Project Period – 2 years) (Release of a sum of Rs.5,88,235/- as 1st instalment)

**Ongoing Funded Projects:**

| Sl. No. | Project Title | Project Period | Duration of the Project | Project Fund (Rs.) | Principal Investigator/Co-Investigator | Funding Agency |
|---|---|---|---|---|---|---|
| 1 | Mud and manhole cleaning robot | 01.12.2018 to 01.12.2021 | 3 years | Rs.1,40,000/- | Er. Harinarayanan Nampoothiri M G (PI) | CERD (Faculty Research Seed Money) |
| 2 | Power generation using Gravitational power plants | 01.12.2018 to 01.12.2021 | 3 years | Rs.1,40,000/- | Er. Vinayakumar B (PI) | CERD (Faculty Research Seed Money) |
| 3 | Design and development of a Temperature Controlled Micro Chamber with precise monitoring and control for Lab –on chip applications using MEMS | 01.12.2019 to 01.12.2022 | 3 years | Rs.1,80,000/- | Dr. Rahul Antony (PI), Er. Vinu Koshy Abraham (Co-PI) | CERD (Faculty Research Seed Money) |

o The team consisting of Er. Jyothish Chandran G, Er. Nishanth P R, Mr. Hari Prasad B of S2 RA batch (2019-23), Mr. Gokul M Saji of S4 EC batch (2018-22) participated in the Virtual Showcase (Exhibition) for the "Innovations Unlocked Kerala Student Innovators Meet" under Top 20 Category with the product "Automatic Hand Sanitizer / Soap Dispenser with Voice Prompt" held on 25th July, 2020.

# Industry Internships/ Trainings

| Company | Batch | Number of students | Period |
|---|---|---|---|
| Industrus Tech | 2019-23 AEI | 1 | 13/01/2021 to 18/01/2021 |
| BSNL RTTC, TVM | 2019-23 ECE | 1 | 06/07/2020 to 17/07/2020 |
| BSNL RTTC, TVM | 2019-23 ECE | 2 | 20/07/2020 to 31/07/2020 |
| Cougar Planet | 2019-23 ECE | 3 | 20/07/2020 to 05/08/2020 |
| Pantech Solutions | 2019-23 ECE | 2 | 27/07/2020 to 31/07/2020 |
| Industrus Tech | 2019-23 ECE | 1 | 28/12/2020 to 02/01/2021 |
| Industrus Tech | 2019-23 ECE | 4 | 13/01/2021 to 18/01/2021 |
| Enfono Technologies | 2019-23 ECE | 1 | 19/04/2021 to 28/04/2021 |
| Virtual World | 2019-23 RB | 1 | 27/07/2020 to 09/08/2020 |
| Pixpil Design | 2019-23 RB | 1 | 04/08/2020 to 04/01/2021 |
| Unschool | 2019-23 RB | 1 | 28/09/2020 to 11/10/2020 |
| Jankalyan, Nagpur | 2019-23 RB | 1 | 11/12/2020 to 11/01/2021 |
| Industrus Tech | 2019-23 RB | 7 | 13/01/2021 to 18/01/2021 |
| Pacelab | 2018-22 ECE | 5 | 24/07/2020 to 31/07/2020 |
| Pacelab | 2018-22 ECE | 4 | 10/08/2020 to 17/08/2020 |
| Pacelab | 2017-21 ECE | 4 | 10/07/2020 to 17/07/2020 |
| IEEE Mumbai | 2017-21 ECE | 1 | 09/11/2020 to 28/11/2020 |
| Inker Robotics | 2017-21 ECE | 3 | 01/08/2020 to 30/01/2021 |

# Self-Learning Programmes

**NPTEL**
o 8 students of 2017-21 ECE batch completed - NPTEL course - Electronic systems for cancer diagnosis

**COURSERA**
o 25 students of 2020-24 ECE batch, 5 students of 2020-24 RB A batch, 1 student of 2019-23 ECE batch, 2 students of 2019-23 RB batch, 1 student of 2018-22 ECE batch, 18 students of 2017-21 ECE batch, 3 students of 2017-21 AEI batch completed - Coursera course - Programming for everybody (Getting started with Python)

o 6 students of 2020-24 ECE batch completed - Coursera course - Learn to Program: The Fundamentals

o 1 student of 2020-24 ECE batch completed - Coursera course - Python Basics

o 1 student of 2020-24 ECE batch completed - Coursera course - Java Programming and Software Engineering Fundamentals

o 1 student of 2020-24 ECE batch completed - Coursera course - The joy of computing using Python
o 1 student of 2020-24 ECE batch completed - Coursera course - Learn to coding – Python
o 5 students of 2020-24 RB B batch completed - Coursera course - Technical support fundamentals
o 1 student of 2020-24 RB B batch completed - Coursera course - Neural networks and deep learning
o 1 student of 2020-24 RB B batch completed - Coursera course - IT Infrastructure and emerging trends
o 1 student of 2020-24 RB B batch completed - Coursera course - Introduction to Intel® Distribution of OpenVINO™ toolkit for Computer Vision Applications
o 2 students of 2020-24 RB B batch completed - Coursera course - Google IT support with Python Sub course: Crash course on Python
o 1 student of 2020-24 RB B batch completed - Coursera course - Introduction to Python
o 1 student of 2020-24 RB A batch, 1 student of 2017-21 ECE batch completed - Coursera course - Introduction to the Internet of Things and Embedded Systems
o 1 student of 2020-24 ECE batch, 2 students of 2017-21 ECE batch completed - Coursera course - Introduction to Artificial Intelligence
o 1 student of 2019-23 AEI batch completed - Coursera course - Model Thinking
o 1 student of 2019-23 ECE batch completed - Coursera course - An Introduction to Programming the Internet of Things (IoT)
o 1 student of 2019-23 ECE batch completed - Coursera course - Applied Machine Learning in Python
o 1 student of 2019-23 RB batch completed - Coursera course - Online Course on Introduction to html5
o 1 student of 2019-23 RB batch completed - Coursera course - Using Python to access web data
o 1 student of 2019-23 RB batch, 2 students of 2018-22 ECE batch, 3 students of 2017-

21 ECE batch completed - Coursera course - Python Data Structures
o 1 student of 2018-22 AEI batch completed - Coursera course - Graphic Designing
o 1 student of 2017-21 ECE batch completed - Coursera course - Getting Started with AI using IBM Watson
o 6 students of 2017-21 ECE batch, 1 student of 2017-21 AEI batch, 2 students of 201923 RB batch completed - Coursera course - C for everyone (Programming Fundamentals)
o 1 student of 2017-21 ECE batch completed - Coursera course - The Arduino Platform and C Programming
o 2 students of 2017-21 AEI batch completed - Coursera course - Machine Learning For All
o 6 students of 2017-21 AEI batch completed - Coursera course - AI for everyone
o 1 student of 2017-21 AEI batch completed - Coursera course - Covid-19 Contact Tracing
o 4 students of 2020-22 RA batch completed - Coursera course - Fundamentals of Fluid Power
o 3 students of 2020-22 VE batch completed - Coursera course - Digital Systems: From Logic Gates to Processors
o 2 students of 2020-22 VE batch completed - Coursera course - VLSI CAD Part I: Logic
o 1 student of 2020-22 VE batch completed - Coursera course - Introduction to IoT
o 1 student of 2020-22 VE batch completed - Coursera course - Python Programming
o 1 student of 2020-22 VE Batch completed - Coursera course - Machine Learning

**UDEMY**
o 1 student of 2019-23 ECE batch completed - Udemy course - Python 3 Course: The complete guide
o 1 student of 2019-23 RB batch completed - Udemy - Self programmer

**edX**
o 3 students of 2019-23 RB batch completed - edX course - Introduction to Data Science
o 1 student of 2019-23 RB batch completed - edX course - Robot Development

- o 4 students of 2019-23 ECE batch, 8 students of 2017-21 ECE batch completed - edX course - AI for Everyone: Master the Basics
- o 1 student of 2017-21 ECE batch completed - edX course - Foundations of AI

**EDUIONX**
- o 1 student of 2018-22 ECE batch completed - Eduionx course - The Complete Python 3
- o Course Beginner to Advanced

**UNSCHOOL**
- o 1 student of 2020-24 RB B batch completed - Unschool course - Artificial Intelligence

**CISCO Networking Academy**
- o 1 student of 2020-24 RB B batch completed - CISCO Networking Academy course - Introduction to cyber security

**CAD Solution**
- o 1 student of 2018-22 AEI batch completed - CAD Solution course - CSWA

**Cognitiveclass.ai**
- o 1 student of 2019-23 RB batch completed - Cognitiveclass.ai course - Python 101 for data science

**Canvas (through Webinar)**
- o 1 student of 2019-23 RB batch completed - Canvas (through Webinar) course - IUCEE student chapter course

- o 13 faculty members successfully completed various online courses offered by Coursera, UiPath, Udemy and edX
- o Two faculty members successfully completed IUCEE course on "Online Teaching" with Distinction.

- o Amrita Virtual Lab: Amrita Virtual Lab is utilized for conducting GATE model multiple choice quizzes for all courses and also for conducting online lab sessions. (Dr. Rahul Antony – AEI in-charge, Er. Bini Thomas – RB in-charge, Er. Dhanusha P B – ECE in-charge)

# Patents Filed

| Sl. No. | Name | Project Title | Details | Type of IPR |
|---|---|---|---|---|
| 1 | Dr. Ansal K A | Development of IOT Based Part Inspection System | Application Number: 202041016738, Filed Date: 18.04.2020, Publication Date: 05.06.2020 | Indian |
| 2 | Dr. Ansal K A | Genomic Processing Embedded System for Dataset Generation and Deep Analysis | Application Number: 2020101618, Filed Date: 03.08.2020, Accepted Date: 26.08.2020, Granted published Date: 10.09.2020 (paid to date: 03.08.2022) | International (Australian IPR) |

| | | | | |
|---|---|---|---|---|
| 3 | Dr. Ansal K A | Low Radiation Wearable Patch Antenna for Embedded Skin Patch Application | Application Number: 2020102000, Filed date: 26.08.2020, Accepted Date: 16.09.2020, Granted published Date: 01.10.2020 (paid to date: 26.08.2022) | International (Australian IPR) |
| 4 | Dr. Binu K Mathew, Dr. Ansal K. A, Er. Anu Raj, Er. Anish M. George, Er. Maheswary Sreenath | Low-Cost Low Power Semi-Automatic Water Level Controller | Application Number: 202041038481, Filed date: 07.09.2020, Publication Date: 25.09.2020 | Indian |
| 5 | Dr. Riboy Cheriyan, Joel Abraham (2016-20 ECE), Sreesankar E (2016-20 ECE), Sandeep Narayanan (2016-20 ECE), Reuben George Mathai (2016-20 ECE) | Machine Learning Based Dynamic Antenna System to Mitigate Effects of Environmental Attenuation in Wireless Communication | Application Number: 202041036948 A, Filed date: 27.08.2020, Publication Date: 11.09.2020 | Indian |
| 6 | Dr. Binu K Mathew | Solid State Switch based Quiz Buzzer | Application Number: 202041050177, Filed Date: 18.11.2020, Publication date: 27.11.2020 | Indian |
| 7 | Dr. Binu K Mathew, Gladwin Yohan Mathew (2018-22 AEI), Don John Daniel (2018 - 22 AEI), Alan V Eldho (2018 - 22 AEI) | An IoT based E-switch for elderly people | Application Number: 202041056651, Filed Date: 28.12.2020, Publication date: 01.01.2021 | Indian |
| 8 | Dr. Youhan Sunny, Er. Binson V A, Er. Vinayakumar B, Er. Jyothi Krishnan M, Er. Harinarayanan Nampoothiri M G, Er. Anish Thomas | Ultrasound based measurement device for Latex extract from Rubber trees, to estimate instantaneous DRC | Application Number: 202041052999, Filed date: 04.12.2020, Publication Date: 11.12.2020 | Indian |

# Faculty Publications

- o In Journals: 11
- o In Conference Proceedings: 11
- o In Book Chapter: 01
- o Accepted for Publication: 10

# MoU with Industries & Universities/Institutions

- o MoU between Entuple Technologies (P) Ltd & Saintgits College of Engineering signed on 19th April, 2017 for 5 years.

- o MoU between Digital Core Technologies Pvt. Ltd & Saintgits College of Engineering for Industry Academy Collaboration Program signed on 03rd May, 2019 for 5 years.

# Institute-Institute Programmes

- o Dr. Shajimon K John – Resource Person for the Mosharaka Remote Seminar on "Making agriculture smarter – the role of IoT" conducted by Mosharaka Remote Seminars on 30th November, 2020.
- o Dr. Riboy Cheriyan – Resource Person for the online expert talk on the topic "FPGA vs CPLD" conducted by Department. of ECE, Viswajyothi College of Engineering and Technology, Vazhakulam on 28th September, 2020.
- o **Faculty Internship/Fellowship:** As part of the sabbatical programme, Dr. Pradeep C joined Smart City Research Center, IIIT Hyderabad as visiting researcher (Duration - 1 year)
- o Dr. Pradeep C was the Resource Person for the AICTE-ISTE sponsored Workshop on Internet of Things (IoT) using Arduino and Raspberry Pi - Phase I (Online) on the topic "Artificial Intelligence - Powered IoT" conducted by GRG Polytechnic College on 11th February, 2021. Coordinator - Dr. Ansal K A.
- o Dr. Pradeep C was the Resource Person for the "FDP on trends and Challenges in the design

and Implementation of Planar antennas" conducted by Department of ECM, Sreenidhi Institute of Science and Technology (An autonomous Institution), Hyderabad from 1st September, 2020 to 5th September, 2020.

- o Dr. Pradeep C was the Resource Person for the "First International Conference on Advancements in Research and development" conducted by RSP conference Hub, International research journal on Advanced science hub on 29th and 30th August, 2020.
- o Dr. Beena A O was the Resource Person for the webinar titled "Current and Future Trends in Wireless Communication Technologies" conducted by Department of ECE, University College of Engineering, Karyavattom on 2nd July, 2020.
- o Er. Nishanth P R was the Resource Person for the webinar titled "Introduction to Internet of Things" conducted by Department of Computer Science in association with IQAC, Bishop Chulaparambil Memorial College, Kottayam on 28th October, 2020.

# FDPs & Workshops

o Department of Electronics and Communication Engineering in association with IETE Kochi Centre organized a National Level 4 days online Faculty Development Programme on "Emerging Research Trends in VLSI, MEMS and Signal Processing" through Google Meet. Total of 85 participants attended the FDP from in and outside India from 10th to 13th August, 2020. Dr. Beena A O and Er. Roshni Oommen - FDP Coordinators, IETE Coordinator - Dr. Riboy Cheriyan. The resource persons for the sessions were as follows:-

  o Dr. Youhan Sunny, Assistant Professor, Department of ECE, Saintgits College of Engineering (10.08.2020, 10.00am to 11.00am)

  o Dr. Sreenidhi P.R, Assistant Professor, Department of ECE, Amrita Vishwa Vidyapeetham, Kollam (10.08.2020, 2.00pm to 3.00pm)

  o Dr. Lintu Rajan, Assistant Professor, Department of ECE, National Institute of Technology, Calicut (11.08.2020, 10.00am to 11.00am)

  o Dr. Krishnapriya S, Assistant Professor, Department of ECE, Muthoot Institute of Technology and Science (11.08.2020, 2.00pm to 3.00pm)

  o Dr. Rahul Antony, Associate Professor, Department of ECE, Saintgits College of Engineering (12.08.2020, 10.00am to 11.00am)

  o Dr. Shajimon K John, Professor, Department of ECE, Saintgits College of Engineering (12.08.2020, 2.00pm to 3.00pm)

  o Dr. Riboy Cheriyan, Professor & HOD (ECE & RA), Saintgits College of Engineering (13.08.2020, 10.00am to 11.00am)

  o Er. Mithun C A, Research scholar, IIT Madras (13.08.2020, 2.00pm to 3.00pm)

o The department of ECE in association with ISTE Saintgits chapter organized an International Online Faculty Development Programme on the topic "Microsytems Design and Control Engineering" through Google Meet for Research scholars and faculty members from National and International Institutions from 17th to 20th September, 2020. Total 150 participants attended the FDP (100 External Participants And 50 Inhouse Participants). Dr. Ansal K A - ISTE Advisor/Coordinator, Er. Maheswary Sreenath - Co-coordinator. The resource persons for the sessions were as follows.

  o Dr. Anuj Abraham, Scientist at A*STAR - Agency for Science, Technology and Research, Singapore (17.09.2020, 11.00am to 12.30pm)

  o Kalpana Senthamarai Kannan, SRF, Nano Electronics and Nanotechnology, University of Grenoble Alpes, TIMA Lab France (18.09.2020, 2.00pm to 3.30pm)

  o Dr. Ramesh K Gupta, Postdoctoral Researcher, Institute for Research in Electronics and Applied Physics (IREAP), University of Maryland, USA (19.09.2020, 7.00pm to 8.30pm)

  o Dr. Laxma Reddy Billa, Senior Process Engineer, Dynex Semiconductor Ltd, United Kingdom (20.09.2020, 3.30pm to 5.00pm)

o The Internet of Things (IoT) club of Saintgits College of Engineering organized an online workshop on "Internet of Things" through Google Meet for the interested students and

faculty members of Saintgits on 17th October, 2020 and 18th October, 2020. Total number of participants attended the workshop were 88. The workshop covered NodeMCU open-source firmware and development board for IoT applications development. Er. Abraham K Thomas - IoT Coordinator. The resource persons for the workshop were as follows

- o Er. Chinn Mohanan Department of Electronics, Saintgits College of Engineering (17th October, 2020 (10.00am to 11.00am)) and
- o Er. Nishanth P R, Department of Electronics, Saintgits College of Engineering (18th October, 2020 (3.00pm to 4.00pm))

o Department of ECE, SAINTGITS College of Engineering organized an AICTE - Training and Learning (ATAL) Academy sponsored 5 days online FDP on the topic "Internet of Things (IoT) for Wearable Devices" through Zoom for faculty members of AICTE approved institutions, Research / PG Scholars & Employees from related Industries from 11th January, 2021 to 15th January, 2021. Total no. of participants - 200 (174 only successfully completed the FDP). The fund sanctioned was Rs 93,000/-. Dr. Ansal K A - FDP Coordinator, Er. Abraham K Thomas - FDP Co-coordinator. The resource persons for the FDP were as follows:

- o Mr. Damodara M. S, Entuple Technologies

- o Dr. Sumit Kalra, IIT Jodhpur
- o Dr. Thushar Kanti Bera, NIT Durgapur
- o Er. Anuroop K. B, Adi Shankara Institute of Engineering and Technology, Kalady
- o Dr. Shajulin Benedict, IIIT Kottayam
- o Dr. Sreedevi K Menon, Amrita Vishwa Vidyapeetham
- o Dr. T Shanmuganatham, Pondicherry Central University
- o Er. Chinn Mohanan, Department of Electronics Engineering, Saintgits
- o Er. Nishanth P. R, Department of Electronics Engineering, Saintgits
- o Er. Jyothish Chandran G, Department of Electronics Engineering, Saintgits
- o Dr. Youhan Sunny, Department of Electronics Engineering, Saintgits College of Engineering
- o Dr. Muruganatham P, IIIT West Bengal

o IETE Students' Forum in association with Department of Electronics Engineering, Saintgits College of Engineering (Autonomous), Kottayam conducted Two Days Online Workshop on 'LaTeX' for the M.Tech students and Ph.D. scholars through Google Meet on 11th and 12th February, 2021. Dr. Riboy Cheriyan - IETE coordinator & Workshop Coordinator. The Resource person for the workshop was Dr. Sreekala K S, Assistant Professor (Special), Department of Electronics Engineering, Saintgits

## Professional Society & Innovation Cell Activities

**IETE** (Coordinator ECE & RB - Er. Riboy Cheriyan)

o Department of Electronics and Communication Engineering in association with IETE Kochi Centre organized a National Level 4 days online Faculty Development Programme on "Emerging Research Trends in VLSI, MEMS and Signal Processing" through Google Meet. Total

of 85 participants attended the FDP from in and outside India from 10th to 13th August, 2020. Dr. Beena A O and Er. Roshni Oommen - FDP Coordinators, IETE Coordinator - Dr. Riboy Cheriyan.

o The IETE Students' Forum (ISF), Saintgits College of Engineering conducted a webinar on

the topic "Life's Little Tricks: Getting you prepared for 2024" by Mr. Joel Abraham (2016-2020 ECE batch) in connection with the Online Student Induction Programme (SIP 10) for B. Tech first year students (2020-2024 Batch) through the online platform ZOOM on 21st November, 2020. Total number of participants attended were 120. Dr. Riboy Cheriyan - IETE Coordinator/SIP 10 in-charge, Dr. Beena A O - Webinar Coordinator

o   IETE Kochi Centre and IETE Students' Forum (ISF), Saintgits jointly conducted "Walk with scholar program – GYANIKKOPPAM" on 9th December, 2020 from 5.30pm to 6.30pm through the online platform ZOOM. The scholar for the program was Sri. P Venugopalan, Director DRDL (Retired) Hyderabad. Honouring ceremony of the newly elected Distinguished Fellow Member of IETE Sri C K Haridas, DGM (Retired) BSNL Palakkad was also conducted along with the GYANIKKOPPAM programme. Total number of participants attended were 235. Dr. Riboy Cheriyan - IETE Coordinator

o   IETE Students' Forum in association with Department of Electronics Engineering, Saintgits College of

o   Engineering (Autonomous), Kottayam conducted Two Days Online Workshop on 'LaTeX' for the M.Tech students and Ph.D. scholars through Google Meet on 11th and 12th February, 2021. Dr. Riboy Cheriyan - IETE coordinator & Workshop Coordinator.

**IEI** (Division in-charge ECE & RB - Er. Abraham K Thomas, AEI - Er. Agitha M S)

o   The IE(I) students' chapter Applied Electronics and Instrumentation Engineering division conducted a Poster Design Competition on 7th August, 2020. Er. Agitha M S - IE(I) E&I Advisor.

o   The IE(I) students' chapter Applied Electronics and Instrumentation Engineering, Saintgits College of Engineering conducted a webinar on

the topic "Robotics: From fiction to science" through Google Meet for interested students of Saintgits on 19th September, 2020. Total number of participants attended were 45. The resource person was Er. Harinarayanan Nampoothiri M G, Assistant Professor, Department of Electronics Engineering, Saintgits College of Engineering. Er. Agitha M S - IE(I) E&I Advisor

o   World Standards Day is celebrated on October 14 every year. The Institution of Engineers (India) Students' Chapter of Saintgits College of Engineering celebrated World Standards Day, divisionwise, with various programmes in that week. The IE(I) students' chapter Applied Electronics and Instrumentation Engineering division conducted an Essay Competition on 14th October, 2020. Total number of students participated were 15. Er. Agitha M S - IE(I) E&I Advisor

o   The IE(I) students' chapter Applied Electronics and Instrumentation Engineering division conducted a Paper Presentation Competition on 15th January, 2021. Er. Agitha M S - IE(I) E&I Advisor

o   The IE(I) students' chapter Applied Electronics and Instrumentation Engineering division conducted a Project Presentation Competition on 1st February, 2021. Er. Agitha M S - IE(I) E&I Advisor

o   The Institution of Engineers (India) Saintgits Student's Chapter - Robotics & Automation division and Department of Physics conducted the 13th webinar on the topic "A Glimpse on 2020 Physics Nobel Prize" by Dr. Noble P Abraham, Assistant Professor, Department of Physics, Mar Thoma College, Tiruvalla through Google Meet for interested students and faculty members on 19th October, 2020. Total number of participants attended were 40. Er. Abraham K Thomas - IE(I) department charge –

ECE & RB, Dr. Suresh Babu M - Department of Physics

o The Department of ECE, Saintgits College of Engineering in association with the Institution of Engineers (India) (IE (I)) Saintgits Students' Chapter conducted the 5th webinar on the topic "Examination Reforms Policy" through Google Meet for the interested students and faculty members on 25th August, 2020. Total number of participants attended were 38. The resource person for the webinar was Dr. Riboy Cheriyan, HOD ECE & RA, Saintgits College of Engineering. Er. Abraham K Thomas - IE(I) Department Coordinator – ECE & RB.

o World Standards Day is celebrated on October 14 every year. The Institution of Engineers (India) Students' Chapter of Saintgits College of Engineering celebrated World Standards Day, divisionwise, with various programmes in that week. The Institution of Engineers India Electronics Division organized an Intradepartmental event "Technical JAM" for the students of S3 (2019-23), S5 (201822) and S7 (2017-21) through Google Meet on 21st October, 2020. Er. Abraham K Thomas - IE(I) Department Coordinator – ECE & RB.

o The IE(I) Electronics Division in association with the Department of Electronics Engineering conducted an Intradepartmental Project Competition and Paper Presentation Competition on 25th and 27th January, 2021. Er. Abraham K Thomas - IE(I) Department Coordinator – ECE & RB.

**ISTE:** (Coordinator - Dr. Ansal K A)

o Department of ECE in association with ISTE Saintgits chapter organized a national webinar on the topic "Data Science Demystified" by Dr. Anoop V. S., Senior Scientist & Head (Training), Kerala Blockchain Academy, IIITM-K Building, Technopark Campus, Thiruvananthapuram, Kerala through Google Meet for the Students,

research scholars and faculty members from all over India on 21st August, 2020. 70 Participants (21 External Participants) attended the webinar. He also agreed to take a session on block chain later. Dr. Ansal K A - ISTE Advisor/Coordinator, Er. Maheswary Sreenath - Co-coordinator.

o Department of ECE in association with ISTE Saintgits chapter organized a national webinar on the topic "Transparent Thin Film Transistors for AMOLED" by Dr. Akkili Viswanath Gowd, DST SRF, IIT Dhanbad (ISM Dhanbad) through Google Meet for the students, research scholars and faculty members from all over the world on 12th September, 2020. Total 149 participants (114 external, 45 from Saintgits) attended the webinar. Dr. Ansal K A - ISTE Advisor/Coordinator, Er. Maheswary Sreenath - Co-coordinator.

o The department of ECE in association with ISTE Saintgits chapter organized an International Online Faculty Development Programme on the topic "Microsytems Design and Control Engineering" through Google Meet for Research scholars and faculty members from National and International Institutions from 17th to 20th September, 2020. Total 150 participants attended the FDP (100 External Participants and 50 Inhouse Participants). Dr. Ansal K A - ISTE Advisor/Coordinator, Er. Maheswary Sreenath - Co-coordinator.

o The Department of ECE in association with ISTE Saintgits chapter organized a national webinar on the topic "Metamaterial Based Antenna Design & Beam Forming Network" by Er. Arshad Karimbu Vallappil, Lecturer/ Research Fellow in Department of Electrical Engineering, Islamic University of Madinah, Madinah, Kingdom of Saudi Arabia through Google Meet for the students, research scholars and faculty members from all over the world on 7th October, 2020. Total 120 Participants (96

external, 24 from Saintgits) attended the webinar. Dr. Ansal K A - ISTE Advisor/Coordinator, Er. Maheswary Sreenath - Co-coordinator.

o The Department of ECE in association with ISTE Saintgits chapter organized a national webinar on the topic "Substrate Integrated Waveguide Antennas" by Dr. Dibin Mary George, SRF CERMA LAB, CUSAT, Cochin through Google Meet for all students, research scholars and faculty members from all over the world on 31st October, 2020. Total number of participants attended the webinar were 119. Dr. Ansal K A - ISTE Advisor/Coordinator, Er. Maheswary Sreenath - Co-coordinator.

o Department of Electronics Engineering in association with ISTE, Saintgits College of Engineering conducted an online alumni expert talk by Er. Gokul Sali (2015-19 ECE pass out batch), Test Engineer, Tessolve Semiconductors, Bangalore on the topic "Introduction to Automatic Test Equipment - A Design Flow" for the undergraduate students of Electronics and Communication Engineering department through Google Meet online platform on 30th May, 2021. Total number of participants attended were 50. Dr. Ansal K A - ISTE Coordinator, Er. Maheswary Sreenath – Webinar Coordinator.

## External Talks

o Department of AEI, Saintgits College of Engineering conducted a webinar on the topic "Opportunities for Instrumentation Engineering Graduates - How to start and Where?" by Er. Sreeraj P V, Nagman Electronics, Chennai through Google Meet on 4th July, 2020. Total 325 participants attended the webinar. The webinar coordinator was Dr. Rahul Antony.

o Department of AEI, Saintgits College of Engineering conducted a webinar on the topic "Importance of Intellectual Property Rights - A student Perspective" by Dr. Sreedha P, KSCSTE Kerala through Google Meet on 11th July, 2020. Total 325 participants attended the webinar. The webinar coordinator was Dr. Rahul Antony.

o The Institution of Engineers (India) Saintgits Student's Chapter - Robotics & Automation division and Department of Physics conducted the 13th webinar on the topic "A Glimpse on 2020 Physics Nobel Prize" by Dr. Noble P Abraham, Assistant Professor, Department of Physics, Mar Thoma College, Tiruvalla through Google Meet for interested students and faculty members on 19th October, 2020. Total number of participants attended were 40. Er. Abraham K Thomas - IE(I) department charge – ECE & RB, Dr. Suresh Babu M - Department of Physics

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o Department of Electronics Engineering in association with ASGEC organized a Motivational talk on Placements by Mr. Joel Abraham (2016-2020 ECE batch) on 5th September, 2020 (at 7.00pm) through Google Meet for the final (2017-21) and prefinal (2018-22) year students of ECE and AEI. Er. Dhanusha P B - ASGEC in-charge

o Department of ECE in association with ISTE Saintgits chapter organized a national webinar on the topic "Transparent Thin Film Transistors for AMOLED" by Dr. Akkili Viswanath Gowd, DST SRF, IIT Dhanbad (ISM Dhanbad) through Google Meet for the students, research scholars and faculty members from all over the world on 12th September, 2020. Total 149 participants (114 external, 45 from Saintgits) attended the webinar. Dr. Ansal K A - ISTE Advisor/Coordinator, Er. Maheswary Sreenath - Co-coordinator.

o ASGEC of Department of ECE in association with Women's forum organized a webinar on the topic "Women's health with special reference to PCOS" as part of Ayush Gramam project, Pallom Block on 28th September, 2020 (7.30pm to 9.00pm) through Google Meet for all girl students and ladies' staff. 98 participants were attended. The guest speaker was Dr. Vaheeda Rahman A, Senior Medical Officer, Govt. Ayurveda Dispensary, Pathanamthitta. Dr. Sreekala K S - Women's Forum charge and Webinar Coordinator, Er. Hanna Mathew - Coordinator, Er. Dhanusha P B - ASGEC incharge

o The Department of ECE in association with ISTE Saintgits chapter organized a national webinar on the topic "Metamaterial Based Antenna Design & Beam Forming Network" by Er. Arshad Karimbu Vallappil, Lecturer/ Research Fellow in Department of Electrical Engineering, Islamic University of Madinah, Madinah, Kingdom of Saudi Arabia through Google Meet for the students, research scholars and faculty

members from all over the world on 7th October, 2020. Total 120 Participants (96 external, 24 from Saintgits) attended the webinar. Dr. Ansal K A - ISTE Advisor/Coordinator, Er. Maheswary Sreenath - Co-coordinator.

o Department of ECE, Saintgits College of Engineering in association with ASGEC conducted a webinar on the topic "Embedded Systems" by Mr. Abhilash Surendran, Senior Hardware Engineer, VVDN Technologies Pvt. Ltd., Kochi on 10th October, 2020 (7.00pm to 8.00pm) through Google Meet for the final year and pre final year students of ECE and AEI branches. Er. Dhanusha P B - ASGEC incharge

o The Department of ECE in association with ISTE Saintgits chapter organized a national webinar on the topic "Substrate Integrated Waveguide Antennas" by Dr. Dibin Mary George, SRF CERMA LAB, CUSAT, Cochin through Google Meet for all students, research scholars and faculty members from all over the world on 31st October, 2020. Total number of participants attended the webinar were 119. Dr. Ansal K A - ISTE Advisor/Coordinator, Er. Maheswary Sreenath - Co-coordinator.

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# Internal Talks

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# National/International Recognition

o **NBA:** Department of Electronics & Communication Engineering was provisionally accredited by NBA in Tier-II for academic years 2016-17 to 2018-19 whose validity expired on 30th June, 2019. An expert team conducted data verification of the accredited programs on 2nd March, 2019 and further accredited for

another 3 years (Academic years 2019-20 to 2021-22) i.e., up to 30th June, 2022.

o **IEI:** Accredited

o **NAAC:** Accreditation process going on. Department coordinator - Er. Abraham K Thomas (NBA Coordinator) and Academic Coordinators.

# NEWSLETTER 2020-21

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