SAINTGITS
COLLEGE OF ENGINEERING
(AUTONOMOUS)

DEPARTMENT OF ELECTRONICS ENGINEERING

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

ELECTRONICS
NEWSLETTER

July 2022

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

MISSION
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.

Program: B.Tech Electronics and Communication Engineering
PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)
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.

PROGRAMME OUTCOMES (POs)
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 (PSOs)
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.
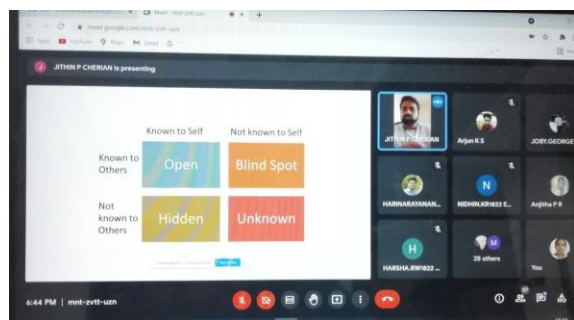
ACADEMICS

PG Results

Batch	Semester	Pass%
2020-2022 VE	S3	100%
2020-2022 TE	S3	100%
2020-2022 RA	S3	100%
2021-2023 VE	S1	100%
2021-2023 TE	S1	100%
2021-2023 RA	S1	100%

UG Results

Batch	Semester	Pass%
KTU Batch		
2018-2022 AEI	S7	44.44%
2018-2022 ECE	S7	68.75%
2019-2023 AEI	S4	63.64%
2019-2023 ECE	S4	46.23%
2019-2023 RB	S4	59.09%
Autonomy Batch		
2020-2024 ECE	S3	61.82%
2020-2024 RB A	S3	37.14%
2020-2024 RB B	S3	45.95%
2021-2025 ECE	S1	80%
2021-2025 RB A	S1	57.58%
2021-2025 RB B	S1	71.88%

STUDENT ASSOCIATION (RACEE) ACTIVITIES

Conducted a webinar on "Engineer Your Mind" by Er. Jithin P Cherian, Alumni of ECE 2012-2016 batch, a motivational speaker, currently pursuing MA Youth work and Community Development in Leeds Beckett University, Leeds, England through Google Meet on 17th July, 2021 at (6:00pm - 7:00pm). *Webinar Coordinators - Er. Dhanusha P B & Er. Harinarayanan Nampoothiri M G.*

The Alumni Association of Electronics Department along with the students' association RACEE jointly organized an Alumni Talk-Live Interaction with Saintgitsians through Zoom online platform on 11th February, 2022 (7.00pm to 8.00pm). The speaker was Er. Joseph T C (2002-2006 ECE batch), Co-founder of APSO, Xrevol Technologies Pvt Ltd, Bangalore. He is also the recipient of Distinguished Alumni Award from our department. The session was titled "Freedom from.....Freedom to....", a session on Mindfulness. Alumni Coordinator (ECE) - Er. Anish M George, RACEE *Coordinator - Er. Sita Radhakrishnan*

Nature Club of Saintgits College of Engineering in association with Department of Electronics and Communication Engineering organized an idea competition "Natura Breakthrough Idea Contest". THEME - "Eco friendly Solutions to ecological problems". 13th October, 2021 was the last date to submit the ideas*. Er. Ashwin P V - Nature Club in-charge*

ALUMNI ASSOCIATION ACTIVITIES

Virtual Alumni Meet, "Kadha Paranja Kaalam" was conducted through Zoom online platform on 28th August, 2021 (2.00pm). Alumni Coordinator - Er. Anish M George

The Virtual Alumni meet of pass out students of Applied Electronics and Instrumentation Engineering, Department of Electronics Engineering, Saintgits College of Engineering, "Oru Vattom Koodi" was conducted on 13th November, 2021 (Saturday) at 2.00pm through Zoom online platform (First alumni meet). Er. Bini Thomas - AEI Alumni Coordinator

INDUSTRY INTERNSHIPS / TRAININGS

2020-22 VE batch:- 4 students undergone paid internship at Tata Elxsi from 1st November 2021, 1 student undergone paid internship in Ignitarium Technology Solutions from 25th October, 2021 and 1 student undergone paid internship in Synopsys from 25th October, 2021.

2020-22 TE Batch: - 3 students undergone internship in Entuple Technologies from 24th August, 2021 to 4th September, 2021.

2020-22 RA Batch:- 1 student undergone one month internship in Bell foods Group during December 2021, 1 student undergone two months internship in Neg Micon (Under CCEK & NSDC) during December 2021 and January 2022, 3 students undergone one month internship in Toms Pipes Private Ltd during December 2021.

2018-22 ECE Batch:- 3 students undergone internship in DIGIADD Technologies from 22nd November, 2021 to 26th November, 2021.

2019-23 ECE Batch:- 5 students undergone internship in BSNL RTTC, Trivandrum from 6th to 10th September, 2021 and 1 student undergone internship from 13th to 17th September, 2021.

2020-24 ECE Batch:- 3 students undergone internship in Alphasys 3D Printing Solutions from 5th to 9th January, 2022. 34 students undergone internship in Keltron, Trivandrum from 23rd to 27th May, 2022. 1 student undergone internship in Crown from 22nd to 29th May, 2022 and 2 students undergone online internship training at I-YwD (Innovation by Youth with Disabilities) a joint venture of NISH and K-DISC for 6 months through online mode.

2020-24 RB A Batch:- 1 student undergone internship in University of Buffalo from 1st July, 2021 to 13th September, 2021. 8 students undergone internship in Pace Lab, Kadavanthara, Kochi from 23rd to 31st May, 2022 and 2 students undergone internship in Saintgits College of Engineering under the guidance of Er. Harinarayanan Nampoothiri M G from 23rd May, 2022 to 3rd June, 2022.

2020-24 RB B Batch:- 1 student undergone internship in TPLC, Thiruvanthapuram from 13th September, 2021 to 12th October, 2021. 9 students undergone internship in Verzeo Edutech from 1st June, 2021 to 31st July, 2021. 7 students undergone internship in Pace Lab, Kadavanthara, Kochi from 23rd to 27th May, 2022. 1 student undergone internship in Saintgits College of Engineering under the guidance of Dr. Pradeep C and Er. Jyothish Chandran G from 23rd May, 2022 to 3rd June, 2022 and 3 students undergone internship under the guidance of Er. Harinarayanan Nampoothiri M G from 23rd May, 2022 to 3rd June, 2022. 8 students undergone internship in Camino Infotech, Kochi from 31st May, 2022 to 4th June, 2022.

2021-25 ECE Batch:- 20 students undergone internship from 18th to 20th May, 2022 and 16 students undergone internship from 23rd to 25th May, 2022 and 11 students undergone internship from 26th to 28th May, 2022 in ASAP Community Skill Park, Perumbaavoor (Skilling and Training in LED Light Technology). 1 student undergone internship in KaaShiv Infotech from 23rd to 27th May, 2022.

2021-25 RB A Batch:- 2 students undergone internship from 18th to 20th May, 2022, 6 students from 23rd to 25th May, 2022 and 4 students from 26th to 28th May, 2022 in ASAP Community Skill Park, Perumbaavoor (Skilling and Training in LED Light Technology).

2021-25 RB B Batch:- 23 students undergone internship in Entuple Technologies, Bengaluru from 24th to 27th May, 2022.

SELF- LEARNING PROGRAMMES
MOOC COURSES

Coursera

1 student of 2020-24 ECE Batch completed Coursera course - The Science of Well Being on 28th November, 2021.

1 student of 2020-24 RB A Batch completed Coursera course – Programming for everybody (getting started with python) on 27th September, 2021.

1 student of 2020-24 RB A Batch completed Coursera course – Programming for everybody (getting started with python) on 18th December, 2021.

1 student of 2020-24 RB B Batch completed Coursera course - Blockchain Basics on 8th November, 2021.

1 student of 2020-24 RB B Batch completed Coursera course – The Bits and Bytes of Computer Networking on 29th October, 2021.

1 student of 2020-24 RB B Batch completed Coursera course – Networking and security architecture with VMware NSX on 29th October, 2021.

1 student of 2020-24 RB B Batch completed Coursera course – Introduction to AWS Identity and Access management on 27th October, 2021.

1 student of 2020-24 RB B Batch completed Coursera course – Getting Started with AWS Machine learning on 27th October, 2021.

1 student of 2020-24 RB B Batch completed Coursera course – Introduction to Cloud Identity on 27th October, 2021.

1 student of 2020-24 RB B Batch completed Coursera course – Version Control with Git on 27th October, 2021.

1 student of 2020-24 RB B Batch completed Coursera course Aruba Networking Basics on 27th October, 2021.

1 student of 2020-24 RB B Batch completed Coursera course – Introduction to Intel Distribution of OpenVINO toolkit for Computer Vision Applications on 27th October, 2021.

1 student of 2020-24 RB B Batch completed Coursera course – Programming for everybody (getting started with python) on 3rd November, 2021.

1 student of 2020-24 RB B Batch completed Coursera course – Using Python to Interact with the Operating System on 20th September, 2021.

MATLAB - 2 students of 2020-24 RB A Batch completed MATLAB course - MATLAB Onramp on 31st July, 2021.

IIT Madras - 1 student of 2020-24 ECE batch completed foundation level course of IIT Madras - HS1001 - English 1, MA1002 -Statistics for Data Science 1 on 12th December, 2021.

PLACEMENT

2018-19 AEI	
Non - Core Area Placements	
Tata Elxi	2
DRDO (2 years contract)	1

2018-19 ECE	
Core Area Placements	
VVDN Technologies	3
Tata Elxi	8
Non - Core Area Placements	
TCS	4
Wipro	1
IBS	3
UST Global	5
Aspire Systems	2
Speridian Technologies	2
Infosys	1
Experion Technologies (I) Private Limited	2

Quest Global Engineering Service Pvt. Ltd.	1

2020-21 M.Tech VE	
Core Area Placements	
Tata Elxi	5
Synopsis	1
Tessolve	1
Ignitarium Technologies Pvt. Ltd., Kochi	1
Insemi Technology Services Pvt. Ltd., Bangalore	1

2020-21 M.Tech RA	
Core Area Placements	
Ignitarium Technologies Pvt. Ltd., Kochi	1

2020-21 M.Tech TE	
Core Area Placements	
Tata Elxi	2
DRDO (2 years contract)	1

INTEGRATED LEARNING PROGRAMME (ILP)

No.	Batch	Title	Date	Faculty Involved
1	2020-2024 ECE, RB A and RB B	Knowledge Enhancement Programme on "Introduction to embedded system and Robotics " (ECE Department in association with IETE Students' Forum (ISF))	23/09/2021 27/09/2021 28/09/2021	Er. Anish M George (Add-on course coordinator), Er. Chinn Mohanan, Er. Nishanth P R, Er. Anish Thomas (Resource Persons)
2	2018-22 ECE	Add-on course on ANSYS HFSS by Entuple Technologies Pvt. Ltd Resource Person - Er. Shashi Kumar, Entuple Technologies Pvt. Ltd, Bangalore	27/09/2021 to 29/09/2021	Er. Anish M George (Add-on course coordinator)

R & D ACTIVITIES

Funded Projects – Sanctioned for funding

DST (Government of India), NMICPS, TiHAN at IIIT Hyderabad

"Design, development, and deployment of energy-efficient smart EDGE devices for real-time traffic flow prediction and control" - Dr. Pradeep C (Co Principal Investigator); Rs 40 Lakhs sanctioned on 20th July, 2022. Period - 3 years (2021-2023); Current status - ongoing (Saintgits in collaboration with IIIT Hyderabad and IIIT Sri City Chittoor); No funding to Saintgits

CERD RSM

"Analysis of human exhaled breath volatile organic compounds using electronic nose system for pulmonary diseases" - Dr. Binson V A (Principal Investigator), Er. Anish Thomas (Co-Investigator). An amount of Rs 80,000/- was sanctioned on 13th August, 2021; Current Status – ongoing (1st installment - Rs 40,000/-, 2nd installment - Rs 40,000/-) No fund received yet

"Investigation towards the use of Spectroscopic Techniques and Chemometrics in the Rapid Identification of Coconut Oil Adulteration" - Er. Ajith Ravindran (Principal Investigator), Dr. Shajimon K John (Co-Investigator). An amount of Rs 45,000/- was sanctioned on 13th August, 2021; Current Status – ongoing (1st installment - Rs 25,000/-, 2nd installment - Rs 20,000/-) No fund received yet

CERD Student project

"IoT based Real Time Air & Noise Pollution Alert system for Asthma and Angina Patients" - Er. Anu Raj (Principal Investigator), Er. Agitha M S (Co-Investigator), Anju Sosa John, Greeshma Thomas , Sona Sussan Zacharia (2018-22 ECE batch) (Student Investigators). An amount of Rs 10,000/- was sanctioned on 27th April, 2022. Current Status – ongoing

"Isolation Robot (ISO-BOT) for patient healthcare" - Er. Harinarayanan Nampoothiri M G (Principal Investigator), Arjun K S, Abhijith Arun, Anpin Mary John, Kevin Kallikunnil Varghese (2018-22 ECE batch) (Student Investigators). An amount of Rs 16,000/- was sanctioned on 27th April, 2022. Current Status – ongoing

KSCSTE Student Project

"Automotive Particulate Emission Monitoring System for Sustainable Enviornment (APEMS)" - Dr. Sreekala K S (Principal Investigator), Er. Dhanusha P B (Co-Investigator), Arun Gopinath, Mariam Susan Philip (2019-23 ECE batch) (Student Investigators). An amount of Rs 10,000/- was sanctioned on 29th October, 2021. Project report completed and sent to KSCSTE; Fund not yet credited (Duration - 6 months)

"Keyboard for Intellectually Disabled" - Er. Abraham K Thomas (Principal Investigator), Er. Ashwin P. V (Co-Investigator), Nitin Thomas, Shaniya Shyju, Elcen Ninan Zachariah, Ajith Mathew Jose (2017-21 ECE batch) (Student Investigators). An amount of Rs 9,999/- was

sanctioned on 29th October, 2021. Project report completed and sent to KSCSTE; Fund not yet credited (Duration - 6 months)

SERB (funding under the Teachers Associateship for Research Excellence (TARE) scheme)

"Application of Deep Learning Techniques for Impairment Mitigation in Next Generation Multiple Access Technologies" - Dr. Beena A O (Principal Investigator) - Faculty Research Grant – An amount of Rs 15 Lakhs was sanctioned on 6th December, 2021 (As per the scheme, Dr. Beena will do a collaborative research work with NIT Calicut and Saintgits College of Engineering. During the project period of three years, she will be eligible to receive a fellowship of Rs. 60,000/- per annum, research grant of Rs. 15 Lakhs and overhead charges as per SERB norms.). Current Status – ongoing (Rs 2.75 lakhs released for Saintgits and Rs 3.35 lakhs for NIT Calicut)

Funded Projects – Ongoing 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 (extended to one more year)	Rs.1,40,000/- (Rs 1,10,000/- received)	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 (extended to one more year)	Rs.1,40,000/- (Rs 1,10,000/- received)	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/- (Rs 1,10,000/- received)	Dr. Rahul Antony (PI), Er. Vinu Koshy Abraham (Co-PI)	CERD (Faculty Research Seed Money)
4	Modernisation and Removal of Obsolescence - MODROB (Lab to be funded: VLSI Lab) -" Modernisation of VLSI Lab : Software Defined Radio (SDR) - Open multimedia application platform"	20.07.2020 To 20.07.2022	2 years	Rs 7,35,294/- (Release of a sum of Rs.5,88,235/- as 1st instalment)	Dr. Riboy Cheriyan (Coordinator)	AICTE - MODROB

PATENTS FILED

Sl. No	Name	Project Title	Details	Type of IPR
1.	Er. Ajith Ravindran Er. Anoopa Ravindran Dr. Shajimon K John	Non Destructive Technique for the Detection of Artificially Ripened Mango using Machine Learning	Application Number : 202141028306 A, Filed Date : 24.06.2021, Publication Date :09.07.2021.	Indian
2.	Er. Jyothish Chandran G Benjamin Koshy Alex (2017-21 ECE Batch) Julian Thomas Prasad (2017-21ECE Batch) Samanta Cottakal (2017-21 ECE Batch) Er. Nishanth P R	Real Time 3D Capturing System for Quality Analysis	Application Number : 202141037372, Filed Date : 18. 08. 2021, Publication Date : 27.08.2021	Indian
3	Er. Arjun B Murali (2020-22 M.Tech TE) Er. Jagadish Chandran G (Ph.D Scholar) Dr. Ansal K A Er. Nina Cleetus (2020-22 M.Tech TE) Dr. Binu K Mathew (EEE)	A Novel Circularly Polarised Rectenna for RF Energy Scavenging	Application Number : 202241032410, Application Date : 07.06.2022, Publication Number :202241032410, Publication Date : 10.06.2022	Indian

PUBLICATIONS

In Journals: 12

In Conference Proceedings: 27

In Book Chapter: 3

MOU WITH INDUSTRIES & UNIVERSITIES/ INSTITUTIONS

MoU between IIIT Hyderabad and Saintgits College of Engineering was signed on 10th December, 2021 for 1 year.

MoU between Digital Core Technologies Pvt. Ltd and Saintgits College of Engineering for Industry Academy Collaboration Program was signed on 3rd May, 2019 for 5 years.

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

MoU between IETE and Saintgits College of Engineering was signed on 5th April, 2013.

RIGS ACTIVITIES

Research Interest Group (RIG) - VLSI, Department of Electronics Engineering in association with The Institution of Engineers (India) - Electronics Division conducted the first webinar of the series on the topic "Emerging Technologies for Next Generation Integrated Circuits". The Resource Person for the webinar is Dr. B. Bindu, Deputy Director, Centre for Nano Electronics and VLSI Design, VIT, Chennai on 15th January, 2022 (10.30am to 11.30am) via Google Meet online platform. Program Coordinators - Dr. Sreekala K S (RIG - VLSI Stream coordinator), Er. Abraham K Thomas (IEI Division Advisor - ECE & RB). Targeted Audience: Final Year and pre-final year B. Tech. Students, M.Tech Scholars, Research Scholars, Faculties

Research Interest Group (RIGS) - VLSI of Department of Electronics Engineering in association with The Institution of Electronics and Telecommunication Engineering (IETE) conducted the 2nd webinar of the series on the topic "My experience with Dr. APJ Abdul

Kalam - Missile Man of India" through Google Meet on 26th January, 2022 (11.00am to 12.15pm). The Resource Person for the webinar was Fr. (Dr.) George Athappally, Professor, St. Vincent Pallotti College of Engineering & Technology, Nagpur. Program Coordinators - Dr. Sreekala K S (RIG - VLSI Stream coordinator), Dr. Riboy Cheriyan (IETE Coordinator). Targeted Audience : B. Tech. and M.Tech. Students, Interested Teaching and Non-teaching staff, Total no. of participants : 172

INSTITUTE-INSTITUTE INTERACTIONS

Dr. Riboy Cheriyan – Resource person for the Online Keynote speech on "Role of VLSI in Embedded Systems" for the B.Tech Final year students during the 14th National Conference on VLSI, Signal Processing & Communication VLES'22 organised by Department of Electronics & Communication Engineering in association IETE, ISTE & R&D, Viswajyothi College of Engineering & Technology, Vazhakulam, Muvattupuzha on 24th June, 2022 through online mode.

Dr. Shajimon K John – Resouce Person for the Seminar on Higher Education after B.Tech for Circuit branches conducted by ER & DCI Institute of Technology, C-DAC, Trivandrum in association with IEEE SSCS, IEEE Kochi Subsection, IEEE Malabar Subsection, IEEE Kerala Section on 25th June, 2022.

Er. Chinn Mohanan (Head SCIE, Saintgits) - Resource person of Startup Awareness and Leadership Training (S.A.L.T) organised by Innovation and Entrepreneurship Development Centre (IEDC), Saintgits College of Engineering at Ambika Vidyabhavan Secondary School, Aimcompu in association with Kerala Startup Mission on 18th March, 2022.

Dr. Youhan Sunny was the resource person of Startup Awareness and Leadership Training (S.A.L.T) organised by Innovation and Entrepreneurship Development Centre (IEDC), Saintgits College of Engineering at Ambika Vidyabhavan Secondary School, Aimcompu in association with Kerala Startup Mission on 18th March, 2022. Dr Youhan Sunny (IIC Convener, Saintgits)

Dr. Youhan Sunny was the resource person of Workshop on Innovation/Prototype Validation – Converting Innovation into a Start-up (1 Day Orientation Programme for Second Year EC/CS/EE Diploma students of Carmel Polytechnic College, Alappuzha.) organized by Institution's Innovation Council (IIC- under Ministry of Human Resource Development (MHRD), Govt. of India), Innovation and Entrepreneurship Development Centre (IEDC- under Kerala Startup Mission) and Entrepreneurship Development Club (under Department of Industries & Commerce, Government of Kerala) of Carmel Polytechnic College, Alappuzha on 9th June, 2022.

Er. Vinayakumar B was the resource person for the Expert Session on Illustration of Stability in Control Systems organized by College of Engineering Perumon (Under CAPE, Government of Kerala) under Technical Education Quality Improvement Programme (TEQIP-III) on 12th February, 2022 for the Pre-final year B.Tech ECE students of College of Engineering, Perumon.

Er. Vinayakumar B was the resource person of Workshop on Innovation/Prototype Validation – Converting Innovation into a Start-up (1 Day Orientation Programme for Second Year EC/CS/EE Diploma students of Carmel Polytechnic College, Alappuzha.) organized by Institution's Innovation Council (IIC- under Ministry of Human Resource Development (MHRD), Govt. of India), Innovation and Entrepreneurship Development Centre (IEDC- under Kerala Startup Mission) and Entrepreneurship Development Club (under Department of Industries & Commerce, Government of Kerala) of Carmel Polytechnic College, Alappuzha on 9th June, 2022.

Dr. Binson V A – Resource person of Workshop on Innovation/Prototype Validation – Converting Innovation into a Start-up (1 Day Orientation Programme for Second Year EC/CS/EE Diploma students of Carmel Polytechnic College, Alappuzha.) organized by Institution's Innovation Council (IIC- under Ministry of Human Resource Development (MHRD), Govt. of India), Innovation and Entrepreneurship Development Centre (IEDC- under Kerala Startup Mission) and Entrepreneurship Development Club (under Department of Industries & Commerce, Government of Kerala) of Carmel Polytechnic College, Alappuzha on 9th June, 2022.

FDPS & WORKSHOPS

3-days Knowledge Enhancement Programme on "Introduction to Embedded Systems and Robotics" for the third semester (2020-24) batch ECE and RB students was conducted by The Department of Electronics Engineering in association with IETE

Students' Forum (ISF) on 23rd, 27th and 28th September, 2021. Er. Anish M George - Add-on course coordinator (ECE & RB), Er. Chinn Mohanan, Er. Nishanth P R and Er. Anish Thomas – Resource Persons

Saintgits College of Engineering organized a 3 days STTP on MATLAB for chemical, Food Technology and Robotics faculty, research scholars and PG students during 18th, 20th and 21st of October 2021. Phase 1: 18/10/2021, Topic: Modelling and Control of Chemical process using MATLAB and simulink. Phase 2: 20/10/2021 and 21/10/2021, Topic: Mobile Robotics. Resource persons were Dr. Debanandh Singhdeo, Education Technical Evangelist, Mathworks, Mr. Pranav Lad, Education Technical Evangelist, Mathworks and Mr. Shashikumar J.K, Application Engineer, CoreEL Technologies. Er. Ancy Sara Varghese, Department of EEE and Dr. Beena A. O, Department of Electronics and Communication - Faculty Co-coordinators

Department of Electronics Engineering in association with Institution of Electronics and Telecommunication Engineering Students Forum (ISF) conducted a One-day workshop on 'LaTex for Technical Writing' on 29th January, 2022. Targeted Audience: PG students, Research Scholars and Interested Faculty members. Total No. of participants - 46 [Faculty - 8 (Internal - 3, External - 5), Students - 38 (Internal - 37, External - 1)]. Dr. Riboy Cheriyan - IETE Coordinator and Dr. Sreekala K S - Resource Person

Department of Electronics Engineering, Saintgits College of Engineering in sponsorship with Entuple Technologies Pvt. Ltd., Bangalore organized 3 days FDP on "Physical Design and Verification using Cadence" from 14th to 16th March, 2022. The first day shall be online mode which includes technical talks by experts and the second and third days shall be offline mode which includes hands-on sessions by Entuple Technologies. Er. Dhanusha P B - FDP Coordinator. Expected Participants: Research scholars, P.G Students, Faculty from affiliated Institutions. Number of Participants – 20. The resource persons were as follows

Dr. Kala S, Assistant Professor, IIIT Kottayam

Dr. Sreekala K S, Department of Electronics Engineering, Saintgits College of Engineering

Mr. Nitten Kumar, Application Engineer, Entuple Technologies Pvt. Ltd.

Internet of Things Club in association with IE (I)-Electronics division conducted Internet of Things - Phase 1 hands on training programme for the B.Tech. first year students (2021-25 batch) of Saintgits College of Engineering by the S2 M.Tech VE students (2021-23 VE batch) on 25th June, 2022. Venue: Internet of Things Lab, Ramanujan Block. Er. Nishanth P R - IoT Coordinator, Er. Abraham K Thomas - IEI Division Advisor - ECE & RB

Two FDPs got sanctioned from APJAKTU on 29th June, 2022

- Technology based learning for communication and signal processing – Dr. Beena A O and Dr. Sudha T (FDP Coordinators) - Tentative Date : 22nd to 26th August, 2022

- Orientation for NSS programme Officers – Dr. Rahul Antony and Er. Maheswary Sreenath (FDP Coordinators)

PROFESSIONAL SOCIETY & INNOVATION CELL ACTIVITIES

The Institution of Electronics and Telecommunication Engineering (IETE)

Dr. Riboy Cheriyan (Coordinator – ECE & RB)

RACEE, in association with IETE students forum organized a webinar on 'Cyber Laws and Online Safety' for the first year (2020-24 batch ECE, RB-A and RB-B) students of Electronics and Communication Engineering and Robotics and Automation programmes through Google Meet online platform on 31st July, 2021. The resource person for the programme is Mr. Syam Gopi, Associate Professor, CSE Department, Amal Jyothi College of Engineering, Kanjirappally. He is also an Elite Member of Cyberdome Kerala Police, Membership Chair- ACM Kottayam Professional Chapter and Project Manager of Nextguard. *Dr. Riboy Cheriyan - IETE Co-ordinator, Er. Dhanusha P B, Er. Harinarayanan Nampoothiri M G - Webinar Coordinators.*

Research Interest Group (RIGS) - VLSI of Department of Electronics Engineering in association with The Institution of Electronics and Telecommunication Engineering (IETE) conducted the webinar on the topic "My experience with Dr. APJ Abdul Kalam- Missile Man of India" for B. Tech. and M.Tech. Students, Interested Teaching and Non-teaching staff through Google Meet on 26th January, 2022. The Resource Person for the webinar was Fr. (Dr.) George Athappally, Professor, St. Vincent Pallotti College of Engineering & Technology, Nagpur. *Program Coordinators - Dr. Sreekala K S (RIG - VLSI Stream coordinator), Dr. Riboy Cheriyan (IETE Coordinator).*

A social outreach programme on "Usage of Mobile phones and its disadvantages", was conducted for class 10 students of Karukachal NSS Girls High School in association with IETE Students Forum (ISF) on June 26th,2022. The session was handled by Emmy Ann Thomas from S4 Robotics and Automation. The social outreach programme was co-ordinated by Dr.Riboy Cheriyan(IETE Co-ordinator), Ashby Stefin Kuriakose and Adithya Satheesh(Student Co-ordinators).

The Institution of Engineers India (IEI)

Er. Abraham K Thomas (Division In-Charge – ECE & RB) and Er. Agitha M S (Division In-Charge – AEI)

The Institution of Engineers India (IEI) Electronics & Robotics Divisions organized an Intradepartmental event "True Techie" competition as the part of Engineer's Day celebration through Google Meet online platform on 25th September, 2021 for B.Tech students of Electronics and Communication Engineering and Robotics and Automation branches of SAINTGITS College of Engineering. Participants need to present an innovative method/idea to solve the problems based on any of the following two themes:- "How to make solar energy economical" or "Solution to current challenges in Electric Vehicle". *Er. Abraham K Thomas - IEI Coordinator, ECE and RB division.* The winners of the competition were First Prize: Team Members were Mr. Amal P Rajesh, Ms. Nimmi Reji, Ms. Anchana Babu and Ms. Greeshma Thomas (S6 ECE 2018-22 batch); Second Prize (Shared by two teams) : Team Members were 1. Mr. P. R. S Niranj Krithivaas, Mr. Madhav Devnarayan, Mr. Ryan Biju Joseph, Mr. Sairas Hashim (S4 RB 2019-23 batch) and 2. Ms. Aiswarya Rose Mathew, Mr. Arjun K. S, Ms. Milna M. S (S6 ECE 2018-22 batch) & Third Prize : Mr. Joel Georgie Jacob (S2 RB-B 2020-24 batch)

Research Interest Group (RIG) - VLSI, Department of Electronics Engineering in association with The Institution of Engineers (India) - Electronics Division conducted the first webinar of the series on the topic "Emerging Technologies for Next Generation Integrated Circuits" on 15th January, 2022 through Google Meet online platform for Final Year and pre-

final year B.Tech. Students, M.Tech Scholars, Research Scholars, Faculties. The Resource Person for the webinar is Dr. B. Bindu, Deputy Director, Center for Nano Electronics and VLSI Design, VIT, Chennai. *Program Coordinators - Dr. Sreekala K S (RIG - VLSI Stream coordinator), Er. Abraham K Thomas (IEI Division Advisor - ECE).*

The Institution of Engineers (India) Electronics Division, Saintgits College of Engineering organized an Intradepartmental "Paper Presentation" competition for the students of Electronics and Communication Engineering programme through online mode on 19th January, 2022. *Er. Abraham K Thomas (IEI Division Advisor - ECE).* The winners of the competition were First Prize : Mr. Gokul M Saji, S7 ECE (2018-22 batch) and Second Prize : Ms. Aiswarya Rose Mathew, S7 ECE (2018-22 batch)

As part of "World Telecommunication and Information Society Day" celebration in the Institution level, The Institution of Engineers (India) students chapter - Electronics and Communication Engineering Division conducted a Quiz Competition for the students on 17th May, 2022. 17 teams participated:- First Prize :- *Arunima B Nair, Kristiena Benny (S4 ECE, 2020-24 ECE batch)*, Second Prize - *Siya Susan Kuruvilla, Aiswarya Rose Mathew (S8 ECE, 2018-22 ECE batch)*. Er. Abraham K Thomas (IEI Division Advisor - ECE & RB)

As part of "World Telecommunication and Information Society Day" celebration in the Institution level, The Institution of Engineers (India) students chapter - Electronics and Communication Engineering Division conducted a talk on "Evolution of Telecommunication 1G to 5G" through Google Meet online platform on 21st May, 2022 (10.00am to 11.00am). The resource person for the talk is Er. Anoop M, Senior R&D Specialist, Packet Core, Nokia Network, Global India. The targeted audiences are all students of ECE and faculty members. Er. Abraham K Thomas (IEI Division Advisor - ECE & RB)

The Robotics Society (TRS)

Er. Harinarayanan Nampoothiri M G (Coordinator)

The formal inauguration of The Robotics Society (TRS) of Saintgits College of Engineering was conducted on 28th January, 2022 (Friday) at 10.00am through Zoom online platform. The Chief Guest for the function was Dr. T. Asokan, Secretary, The Robotics Society (TRS) (Professor and Head, Department of Engineering Design, Indian Institute of Technology Madras). TRS Coordinator – Er. Harinarayanan Nampoothiri M G.

In association with the Robotics Automation Communication Electronics Engineering Association (RACEE) and IEDC, The Robotics Society Saintgits student chapter(TRS-SC/22/021) has organized a technical talk with a hands-on workshop for the fourth (2020-24 RB A & B) and sixth (2019-23 RB) semester students of B.Tech in Robotics and Automation programme on 9th June, 2022. The programme was attended by 117 students from these batches, Post Graduate students in Robotics and Automation and faculty members of the Department of Electronics Engineering. Er. Sunil Paul, Co-Founder and CEO of Srishti Robotics Technologies, Pvt. Ltd. was the resource person for the talk. Er. Sita Radhakrishnan - RACEE Coordintor, Er. Harinarayanan Nampoothiri M G - The Robotics Society (TRS) Coordinator, Er. Vinayakumar B - IEDC Nodal Officer. Venue: VB Seminar Hall.

The Robotics Society student chapter, SAINTGITS College of Engineering (TRS-SC/22/021), has offered an internship for five students from B.Tech Robotics and Automation Engineering 2020-24 batch on the topic "Manhole cleaning robots", a CERD RSM project, by Er. Harinarayanan Nampoothiri M G. The project's objective is to create a robotic system that can clean the Manholes, which is currently in progress with a project team consisting of Mr Robin Babu, 2020-22 M.Tech Robotics and Automation working on it. Period of internship was 10 days; 23rd May, 2022 to 3rd June, 2022. List of students completed the internship: Adithya Sreekumar, Jayasankar V A, Joyel Joseph James, Melvin Elias Mathew, Sivada Nair.

Innovation Cell

The online store of MEGASOLUTIONS – Startup by the faculty member Er. Jyothish Chandran G , Er. Nishanth P R and Gokul Sali (2015-19 ECE Pass out Student) - launched with Electronics / IT products, Development boards, Modules and Components - https://mskart.in/

EXTERNAL TALK

Research Interest Group (RIG) - VLSI, Department of Electronics Engineering in association with The Institution of Engineers (India) - Electronics Division organized a webinar on the topic "Emerging Technologies for Next Generation Integrated Circuits" on 15th January, 2022 (10.30am to 11.30am) by Dr. B. Bindu, Deputy Director, Centre for Nano Electronics and VLSI Design, VIT, Chennai for the final Year and pre-final year B. Tech. Students, M.Tech Scholars, Research Scholars and Faculties. Program Coordinators - Dr. Sreekala K S (RIG - VLSI Stream coordinator), Er. Abraham K Thomas (IEI Division Advisor - ECE & RB)

Research Interest Group (RIGS) - VLSI of Department of Electronics Engineering in association with The Institution of Electronics and Telecommunication Engineering (IETE) organized a webinar on the topic "My experience with Dr. APJ Abdul Kalam- Missile Man of India" on 26th January, 2022 (11.00am to 12.15pm) by Fr.(Dr.) George Athappally, Professor, St. Vincent Pallotti College of Engineering & Technology, Nagpur for the B. Tech. and M.Tech. Students, Interested Teaching and Non-teaching staff. Total no. of participants : 172. Program Coordinators - Dr. Sreekala K S (RIG - VLSI Stream coordinator), Dr. Riboy Cheriyan (IETE Coordinator)

SAINTGITS College of Engineering (Autonomous) has been selected to take- part in the National Intellectual Property Awareness Mission (NIPAM) under the banner Azadi Ka Amrit Mahotsav. In this regard, an awareness programme on Intellectual Property Rights was conducted on 22nd March, 2022 afternoon 2.30 PM - 3.30 PM through Webex online mode and which is jointly organized by KSCSTE, IPRIC-K, and Patent Office, Chennai, Department for Promotion of Industry and Internal Trade (DPIIT), Govt. of India. The Patent Office will host the online session. The Programme is a combined event of Sophisticated Test and Instrumentation Center, Cochin University campus and SAINTGITS College of Engineering (Autonomous). The resource person for the programme was Smt. ANJANA HARIDAS, Examiner of Patents & Designs, Patent Office, Chennai. The targeted audience were UG students, PG students, Research scholars and faculty members. Programme Coordinators from Saintgits - Dr. Sreekala K S, Dr. Beena A O.

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