

# SCMS SCHOOL OF ENGINEERING & TECHNOLOGY

VIDYA NAGAR, KARUKUTTY, ERNAKULAM – 683576, PHONE: 0484-2882900, 2450330 E-Mail: sset@scmsgroup.org Website: www.scmsgroup.org/sset

# Criteria 6:

Governance, Leadership and Management

**6.3.3 Faculty Empowerment Strategies** 



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Annual reports highlighting the programmes undertaken by the teachers

Report for the period

July 2019 - June 2020

#### SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY

# Report for the period July 2019 – June 2020

#### **JULY 2019**

#### **PPTIA 2019- Curtain Raiser**

The curtain raiser event for Dr. Pradeep P Thevannoor Innovation Awards (PPTIA) 2019 was conducted on 17<sup>th</sup> July 2019. Over 80 students from 12 different schools of Ernakulam and Thrissur districts took part in various competitions held as part of the event. The theme for the event was 'Save our mother earth' and three competitionspitching, photography and poster making were conducted based on this theme. Prizes and certificates were distributed by Dr. Radha P. Thevannoor, Group Director, SCMS during the valedictory function.

## **Campus Activities**

A National Conference on 'Recent Trends in Electrical Engineering and Technology (NRTEET '19)' was also organized by the Dept. of Electrical and Electronics Engineering from 4tht to 5<sup>th</sup> July 2019. The conference witnessed over 35 submissions from academic and non-academic institutions.

The Dept. of Automobile Engineering in association with SAEIndia, Collegiate club of SCMS conducted a 5 - day internship on "Dismantling and Rebuilding of Automotive Components" for the students of the department. The internship was for two batches of 6 students each from 1<sup>st</sup> to 5<sup>th</sup> July and 8<sup>th</sup> to 12<sup>th</sup> July 2019.

The Dept. of Computer Science and Engineering organized a one day workshop on'Deep learning using Tensor flow' and the workshop was conducted by Dr Ramprasad K, VisionCog, Thiruvananthapuram, on 6<sup>th</sup> July 2019 for the faculty members of CSE.

The Dept. of Civil Engineering organized a 3 day faculty development programme (FDP) on the theme 'Emerging Challenges in Sustainable Urban Development' from 10<sup>th</sup> to 12<sup>th</sup> July 2019. The programme was sponsored by Kerala Technological University and was attended by 30 faculty members from various engineering colleges across Kerala. The programme focused on various aspects of urban development and the challenges that are emerging and demanding sustainable solutions and also covered wide range of topics important for urban sustainability such as urban infrastructure, mobility, waste management, water security and biodiversity.

#### **Student's Achievements**

The eighth semester results of the first KTU batch were published on 17<sup>th</sup> July 2019 and SSET bagged a prestigious 9<sup>th</sup> position in the state and 2<sup>nd</sup> position among private self-financing engineering colleges. In the results published stream wise, the

following students of SSET achieved positions among the Top 10: Ms. Ananya of Dept. of Computer Science and Engineering and Mr. Albin M P, Mr. Vishnu V S, Mr. Jayakrishnan B, Mr. Mohammed Shahinsha, Mr. Yogendra Pai J & Mr. Abhinand K V of Dept. of Automobile Engineering

#### **Staff Achievements**

Dr. Sheeja Janardhanan, Professor, Dept. of Mechanical Engineering was the organizer of the Special Session 11 on Advance Scientific Visualization for Multidisciplinary Engineering and also its chair at the 13<sup>th</sup> International Conference on Advanced Computational Engineering and Experimenting (ACEX) held during 1<sup>st</sup> to 5<sup>th</sup> July 2019 in Athens, Greece. During the session she delivered her opening talk on 'Bio-Inspired Propulsion for Marine Vehicles-A Review'. She also spoke on the design principles of such vehicles unveiling SSET's technology in building fish-shaped and fish-locomotion inspired unmanned underwater vehicle, the Navigational Emergency Marine Object (NEMO) and its journey from Mark I to IV. Dr. Sheeja is a member and the only Indian in the scientific committee of ACEX.

#### **Placement News**

The following numbers of offers were given to our 2019 batch students by various companies:

- 1. Bosch-1
- 2. Verdant Telemetry 1

The final results of UST Global, IVL, OEN India Ltd, Cabot Technology, Manhattan Associates and Takyon Systems are awaited.

One final year Computer Science and Engineering student is shortlisted for final round of HackwithInfy competition conducted by Infosys Limited.

ICT Academy of Kerala conducted two days Induction training program for our First year B.Tech students during 23<sup>rd</sup> and 24<sup>th</sup> July 2019.

#### **AUGUST 2019**

# Seminars and Workshops

The Dept. of Electrical and Electronics Engineering conducted a Workshop on 'Research Perspective in Power, Energy & Instrumentation Systems' from 25<sup>th</sup> to 27<sup>th</sup> June 2019. The workshop focused on various fields of Electrical engineering including Energy Management and Auditing, Transformer Protection Testing and Maintenance, Electrical accidents and Theft issues, Electrical systems in large scale Production industry etc. An industrial visit was also arranged as the part of workshop. A five-day Faculty Development Program on 'Information and Network Security Challenges' sponsored by KTU (APJ Abdul Kalam Technological University), was organized by Dept. of Computer Science& Engineering from 1<sup>st</sup> to 5<sup>th</sup> July 2019. SSET IEDC in association with SYNERGY, CSE Students Association organized two day workshop on Software Engineering using Agile workshop. ICT Academy of

Kerala in association with Kerala Start-Up Mission conducted the event on 20<sup>th</sup> and 21<sup>st</sup> August 2019.

## **Campus Activities**

Technical Talk on 'Passion for Civil Engineering', 'Concrete Concepts', 'Geosynthesis-Products, Functions and Applications' and 'Reinforced Soil Retaining Walls-Concepts, Materials and Design' were conducted by Dept. of Civil Engineering on 27<sup>th</sup> and 30<sup>th</sup> August 2019. Er. M.A Joseph, Regional Head-Technical Services, Ultratech Cements and Dr. Jimmy Thomas, Consulting Engineer, were the resource persons for the interaction.

Session by CLAS Institute for feasibility of initiating GATE Coaching was conducted for our final and pre final year B.Tech students on 20<sup>th</sup> and 21<sup>st</sup> August 2019.

#### **Placement News**

One of our final year Computer Science and Engineering student is selected and offer given through HackwithInfy competition conducted by Infosys Limited.

M/s Sharp Skills conducted two days Induction training program for our First year B.Tech students during 1<sup>st</sup> and 2<sup>nd</sup> August 2019.

SOTI conducted their Student day program for our final year B.Tech, M.Tech-CSE and MCA students on 8<sup>th</sup> August 2019 and will conduct their recruitment drive for our final year students during October 2019.

The final results of our 2020 batch final year B. Tech students who attended the Indian Navy University Entry Scheme selection process on 28<sup>th</sup> August 2019 are awaited.

An online pre placement test was conducted for final year CSE students on 24<sup>th</sup> August 2019.

Konfidence Group conducted two days Aptitude training program for our Final year B.Tech and M.Tech students during 19<sup>th</sup>, 20<sup>th</sup> and 26<sup>th</sup>, 27<sup>th</sup> August 2019.

#### **SEPTEMBER 2019**

# **Induction Program for First Year Students**

An induction program was conducted for the Batch 19 B-Tech first year students at SSET campus from 22<sup>nd</sup> July to 2<sup>nd</sup> August 2019. The program included interactive sessions on Engineering Education and Life at SSET, Student Development Programs and Placement Activities, Innovations at Centre for Robotics/FABLAB, NSS and H2O activities, Professional bodies, IEDC, Sports, Arts and campus visits. Training programs were also conducted.

# **College Achievements**

Students of Electronics and Communication Engineering bagged the top position among 123 colleges in the state with an overall 84.85% pass in the Fourth semester B-Tech Degree KTU Examination conducted in May 2019.

#### **Staff Achievements**

Dr Sunil Jacob, Director, Centre for Robotics has been granted a funding of 12000 USD for the project titled 'AI powered Smart Switching system for flood affected regions' from IEEE SIGHT, New Jersey, USA. The project provides complete protection to flood prone areas. The project will be completed in four phases and presently, a funding of 3000 USD for the first phase has been released.

Dr. Varun G Menon, Associate Professor, Department of Computer Science and Engineering, presented a talk on "Writing Quality and Novel Research Paper" at KSR College of Arts and Science, Tiruchengode on August 8. The talk was part of the ACM Distinguished Lecture program.

#### **Student Achievements**

The first KTU batch (2015-2019) of B-Tech Automobile Engineering showcased an outstanding performance with 100% pass in the Eighth semester B-Tech Degree KTU Examinations held in May 2019. The Automobile Engineering Department also proudly felicitated the rank holders at a function held on July 25, during the induction program of the 1<sup>st</sup> year B.Tech Automobile Engineering students. Albin M P, Vishnu V S, Mohammed Shahinsha N, Jayakrishnan B, Yogendra Pai J and Abhinand K V secured 6 of the top 10 university ranks for the Automobile Engineering branch. The first year students also had an opportunity to interact with the rank holders in a special panel discussion organized by the department and moderated by Mr Midhun R, Assistant Professor, Automobile Engineering Department.

#### **Placement News**

The following numbers of offers were given to our 2019 batch students by various companies:

1. UL Technology Services—1

TCS conducted their online test on August 3 and 4 and final results are awaited.

SOTI Students Day was conducted for our final year B-Tech, M-Tech Computer Science and Engineering as well as MCA students by SOTI Global Team on August 8 and will conduct their internship/placement drive process for our final years during October 2019.

An online test were conducted for final year our final year B-Tech, M-Tech Computer Science and Engineering students on August 17 to evaluate their technical skills.

One of our Seventh semester CSE student have won a pre-placement interview opportunity of HackwithInfy competition conducted by Infosys Limited scheduled on August 26.

Fourth and Fifth day of Aptitude training by Konfidence were conducted for final year B-Tech and M-Tech students on August 19, 20, 26, 27.

Indian Navy – University Entry Scheme 2020 selection process for B-Tech final year batch is scheduled on August 28.

M/s ICT Academy of Kerala conducted two days Induction training program for our First year B.Tech students during 23<sup>rd</sup> and 24<sup>th</sup> July 2019.

M/s Sharp Skills conducted two days Induction training program for our First year B.Tech students during  $1^{st}$  and  $2^{nd}$  August 2019.

Konfidence Group conducted two days Aptitude training program for our Final year B.Tech and M.Tech students during 19<sup>th</sup>, 20<sup>th</sup> and 26<sup>th</sup>, 27<sup>th</sup> August 2019.

#### OCTOBER 2019

## **Seminars and Workshops**

SSET IEDC in association with Synergy, CSE Students Association, conducted a two-day workshop on 'Software Engineering using Agile Method' for 35 students on 20<sup>th</sup> and 21<sup>st</sup> August 2019. The programme was sponsored by Kerala Startup Mission in association with ICTAK. Ms. Nitha Anilkumar of ICTAK was the resource person for the workshop.

Kerala Blockchain Academy Innovation Club in association with SSET IEDC conducted a two-hour workshop on 'Blockchain-Enabling Revolution' for 50 students on 27<sup>th</sup> August 2019. Mr. Parthiban Selvaraj and Ms. Shilpa Jalaja, Blockchain Services, TCS were the resource persons for the event.

To promote innovation and creativity among first year B.Tech students, IEDC conducted an Idea Pitching Competition for first year students on 30<sup>th</sup> August 2019. From a total of 23 entries, 14 ideas were shortlisted and presented in front of the judges.

The Department of Automobile engineering association 'Torque', in association with SAE India Collegiate Club of SCMS & SSET IEDC conducted an Industry – Institute interaction on September 3. The session was conducted by Mr. Dhanesh B Krishna, Platform Manager - Starter Motors, SEG Automotive, Germany Stuttgart (formerly Bosch Group) with over 18 years of experience in the automotive industry including companies like Arvin Meritor, Mercedes Benz and Bosch.

# **Campus Activities**

Onam was celebrated in the true spirit of the festival by students, staff and faculty on September 6.

#### **NSS Activities**

A leadership development class was conducted on 4<sup>th</sup> August 2019 for 40 students of the fifth semester by Mr.Sujay K, Asst. Professor, Department of Automobile Engineering and Program Coordinator of NSS at SSET. He was assisted by Mr.Hari Prasad, Ex NSS volunteer of SCMS and Abhimanyu, active volunteer of AdishankaraInstitute of Engineering and Technology. The sessions aimed to improve leadership qualities like time management, communication skills, problem solving skills, decision making etc.

Electrification work and circuit checking of flood affected houses was done in Velankanni colony, North Kuthiathode, on 17<sup>th</sup> August 2019. The activities were led by Volunteer secretary Athulya along with fifth semester and third semester students. Twelve NSS volunteers and a student of SSET had gathered at Anugraha Sadan, Koodapuzha, Chalakudy, on 9<sup>th</sup> September 2019, to visit the children staying there and to share happiness on the festive occasion of Onam. They spent time with the

children and nuns who managed the establishment and shared a traditional 'sadya' lunch with them.

#### **Staff Achievements**

Dr. Sheeja Janardhanan, Dr. Venu P, Professors, Dept of Mechanical Engineering authored a paper on" Towards the development of a bio-inspired shark-shaped unmanned underwater vehicle" also co-authored by, Fifth semester Mechanical Engineering students-Mr. Fahad Bin Shahabudheen, Mr. Allen Issac, Seventh Semester Mechanical Engineering student-Mr. Abhijith O. and M.Tech Mechanical Engineering student-Mr. Pranav Das.

Mr. Ajith Kumar R., Dr. Sheeja Janardhanan, Ms. Vidya Chandran and Mr. Noel Joseph Gomez, faculty, Department of Mechanical Engineering, authored a paper on "Controllability studies on fish-shaped unmanned under water vehicle undergoing manoeuvring motions".

Both the above papers were presented by Dr. Galina Ilieva, Director Research, Technical University of Varna, Bulgaria during the 18th International Congress of the Maritme Association of the Mediterranean (IMAM 2019) during September 9-11. The papers are published in the book titled "Sustainable Development and Innovations in Marine Technologies", ISBN:9780367810085, published by Taylor and Francis, CRC Press, London

#### **Student Achievements**

Mr. Anish B Soman, student of S7ME1, Chairman – SSET ASME Student Chapter, has been selected as the ASME Student Regional Chair for the Southeast Asia Region from India. The selection was based on the application forwarded by Mr. Anish that included a video presentation of his contributions to the ASME student Chapter of SSET and his vision to expand ASME activities across the South-East Asia region. Mr. Anish has also been invited to attend the Global ASME Student Section Enterprise Committee meeting on November 9 at Salt Lake City, Utah, USA. He along with Mr. Balendu Divakar, also a student of S7ME1 – Treasurer SSET ASME Student Chapter, will be attending the meeting with all expenses paid by ASME.

#### **Placement News**

Our one Seventh semester Computer Science and Engineering students is offered by Infosys from the HackwithInfy conducted.

The pre placement tests of IBS and Quest Global were conducted for 2020 batch B.Tech students during 17<sup>th</sup> and 19<sup>th</sup> September 2019.

Eighth, Ninth and Tenth day of Aptitude training by Konfidence were conducted for final year B.Tech and M.Tech students on 2<sup>nd</sup>, 25<sup>th</sup> and 30<sup>th</sup> September 2019 and mock interview sessions were conducted during 3<sup>rd</sup> to 5<sup>th</sup> and 23<sup>rd</sup> to 27<sup>th</sup> September 2019.

# **Career Guidance Programs**

'Career Guidance Talk' for 2017-2021 batch B.Tech Computer Science and Mechanical students, by Mr. Christy Fernandez, IAS was held at our campus on 3<sup>rd</sup> September 2019.

Talk on 'Higher Studies Opportunities Abroad' by Mr. Arun Sen N, Lead Engineer, Honest Co. Ltd, Japan (Alumni, B.Tech 2014-2018 CSE), was held on 4<sup>th</sup> September 2019 for our 2016-2020 and 2017-2021 batch B.Tech CS students.

#### **NOVEMBER 2019**

## **Seminars and Workshops**

The Department of Civil Engineering in association with Innovation and Entrepreneurship development Centre – IEDC (Supported by Kerala Startup Mission) conducted a 2-day QGIS Workshop for Civil Engineering students on 26<sup>th</sup> and 27<sup>th</sup> September 2019. 40 students from SSET & 50 students from various engineering colleges across Kerala attended the workshop. Dr. Ratish Menon, Associate Professor, Civil Engineering (PhD Environmental Engineering (IIT Bombay)) led the workshop and was assisted by M Tech Environmental Engineering students who took on the role of student mentors.

The Department of Automobile Engineering in association with SAE INDIA Collegiate club of SCMS & Innovation and Entrepreneurship development Centre – IEDC (Supported by Kerala Startup Mission) organized a 2-day Auto Workshop exclusively for Mechanical Engineering / Automobile Engineering students on 26<sup>th</sup> and 27<sup>th</sup> September 2019. The program had an overwhelming response with 45 registrations. Students of technical institutions from all over Kerala, Chennai and Coimbatore attended the event.

# **Campus Activities**

A poster making competition was held on 6<sup>th</sup> October 2019 by the Literature club of Mechanical Engineering department to commemorate the occasion of Gandhi Jayanthi. The theme for the competition was "SHADES of FREEDOM" and the first place was secured by Sanjay T.J of B.Tech ME 2019-2023 Batch, second position was awarded to Goutham Manohar of B.Tech ME 2016-2020 Batch, and the third place to Jeomon Jose of B.Tech ME 2018-2022 Batch. The program was organised by Mr. K.K. Gopalakrishnan, Staff in charge of the literature club and by student coordinator Allen M Chandi.

The Department of Electronics and Communication Engineering organized a talk on the Theme: "An insight into the systems of Kochi Metro" by Mr. Jayananda Somasundara, Deputy General Manager, Signaling and Telecommunication, Kochi Metro Rail Limited on 11<sup>th</sup> October 2019.

The Department of Mechanical Engineering, in association with BMW EVM Autokraft and Ducati EVM organised 2-day Workshop on Future Technologies for students on 15<sup>th</sup> and 16<sup>th</sup> October 2019. The program had an overwhelming response with 246 registrations. Students of technical institutions from all over Kerala attended the event. An Auto Tech Quiz was conducted on day 1 and the 1<sup>st</sup> prize winner was John K Loyson, B.Tech ME 2017-2021 Batch and the 2<sup>nd</sup> prize was shared by Nihal K, B.Tech AU 2016-2020 Batch and Mohammed Jasime P, B.Tech AU 2017-2021 Batch. The Makeathon Competition was conducted on Day 2. The students were asked to build a walking mechanism using the materials given in limited time schedule.

Department of Computer Science & Engineering conducted a one day Hands on Workshop on Blockchain on 19<sup>th</sup> October 2019. The event was conducted by eminent speakers from TCS, Kochi office. The workshop was attended by faculty members and students of B.Tech CS 2016-2020 and 2017-2021 batches.

#### **NSS Activities**

On 24<sup>th</sup> September 2019 the NSS unit celebrated its golden jubilee. The program began with a flag hosting ceremony by Dr. Praveensal C J and volunteers who had assembled at the campus were given hand-made badges. The chief guest Dr. Praveensal C J, Principal, SSET, volunteers, Program Officer Mr. Sujay K and all panel members were welcomed by the volunteer secretary Anees T N. Senior program officer Mr. K K Gopalakrishnan addressed the gathering on how the national service scheme emerged over the past 50 years and became one of the largest organizations in the world. Also the NSS unit of SSET conducted a blood donation camp as a part of this celebration. About 90 volunteers attended the program.

The NSS unit in association with the forest department of Athirapilly gave a helping hand to the hillock behind the cattle breeding farm, Thumburmuzhi, which had about 14 debris flows in the past two years during the devastating flood that happened in Kerala. In the first phase of the project "Thaiveru", more than 50 bamboo saplings were planted at Konnakuzhy in Pariyaram gramapanchayat near Athirapilly on 15<sup>th</sup> September 2019. The inauguration of the project was done by Mr. N Satheeshan (Forester, SFO) by planting a bamboo sapling. Mr. N Satheeshan and Mr. Rakesh A (SSET program officer) addressed the gathering on the positive effects of using bamboo plants to control landslides. The project was carried out by 35 NSS volunteers of SSET and the residents of Konnakuzhy who dug the pits and planted bamboo saplings under the supervision and advice of officers of forest department.

#### **Staff Achievements**

A book titled 'Advances in Visualization and Optimization Techniques for multidisciplinary Research' that was edited by Dr. Sheeja Janardhanan, Professor, Department of Mechanical Engineering has been published by Springer and is now available online at <a href="https://link.springer.com/book/10.1007/978-981-13-9806-3">https://link.springer.com/book/10.1007/978-981-13-9806-3</a>. Dr. Sheeja has also authored the fourth chapter in the book.

Dr. Mahesa Rengaraj R, Professor, Department of Mechanical Engineering and Dr. Saira Joseph, Associate Professor and HoD, Department of Electronics and Communication Engineering have been approved as PhD guides affiliated to APJ Abdul Kalam Technological University.

Dr. Vinod P, Dean- Research and Publication, Professor and HoD of Department of Computer Science and Engineering was invited for a Keynote speech as part of the Annual Security Conference SecCon APJ 2019 at CISCO, Bengaluru on 16<sup>th</sup> October 2019. Dr. Vinod gave a talk on the topic 'Is Machine Learning Secure?'

#### **Student Achievements**

A three member team from B.Tech 2016-2020 batch Civil Engineering, Ms. Nandana S, Ms. Vani Vijayakumar & Ms. Teena Mariya Jose were adjudged 2<sup>nd</sup> from among twelve teams (eleven teams from India and 1 team from Indonesia) in the 5<sup>th</sup> University Challenge India held at Mumbai in

association with German Academic Exchange Service (DAAD) & Institute for Foreign Affairs and Trade (IFAT – India) on 17<sup>th</sup> and 18<sup>th</sup> October 2019.

## **Sports Achievements**

The KTU D-zone Kabaddi championship was held at SSET campus on 30<sup>th</sup> September 2019. This was the first time SSET hosted a university level sports championship and SSET bagged the first place in both Men's and Women's category. SNGIST bagged the runner up position in both categories.

#### Alumni Meet

The annual SSET alumni meet of the UAE chapter was held at Ajman Beach Resort on 5<sup>th</sup> October 2019. Dr. Praveenasal C J, Principal, SSET, Dr. Anitha G Pillai, Dean-Academic Affairs and HoD, Department of Civil Engineering, Ms. Sonal Ayyappan, Associate Professor, Department of Computer Science and Engineering and Mr. Anil G, Deputy Librarian attended the event.

#### **Placement News**

The following numbers of offers were given to our 2020 batch students by various companies:

- 1. Infosys Limited 103 2. Quest Global 12 3. TCS 37 4. SOTI India 3
- 5. IBS Software Services 5

The final results of Indian Navy, Indian Army, CTS, MuSigma, Qburst, Digitalcore Technologies Autobahn Trucking and Novelworx are awaited.

Ninth and Tenth day of Aptitude training by Konfidence were conducted for final year B.Tech and M.Tech students on 25<sup>th</sup> and 30<sup>th</sup> September 2019 and mock interview sessions were conducted during23rd to 27<sup>th</sup> September 2019.

#### **DECEMBER 2019**

#### **PPTIA 2019**

The 5<sup>th</sup> edition of Dr. Pradeep P Thevannoor Innovation Awards, PPTIA 2019 was conducted on 16<sup>th</sup> and 17<sup>th</sup> November 2019. Students from a total of 15 schools including an international participation from Leaders Public School, Sharjah presented their projects and ideas. At the college level also, students of 15 colleges including participants from Daffodil University, Bangladesh and Hungkuang University, Taiwan presented their innovations. The exhibition on November 16 was followed by a cultural extravaganza for the participants of the event. As part of PPTIA 2019, a motivational talk was conducted by alumni of SSET Mr. Nihal Pradeep and Mr. Sreeram S Kamath, followed by an informative talk by Mr. Shaji P Janardhanan, General Manager, Kochi Water Metro.

The award ceremony of the event was conducted on 17<sup>th</sup> November 2019 with Mr. Christo George, Chairman and Managing Director of Hykon India Ltd as the Chief Guest and Mr. Adarsh Nair, Chief Product and Experience Officer, Airtel delivered the Keynote address. Apart from runner up and first prize winners, title awards were given for best prototype, best business model and best algorithm. At the school level,

the 1<sup>st</sup> prize was awarded to students of Govt. Boys Higher Secondary School, Manjeri for the project "Chair Assist". Students of Bhavan's Vidya Mandir, Girinagar bagged the 2<sup>nd</sup> prize for their project "Waste to Wealth and Waste to Health". At the college level, the 1<sup>st</sup>prize was awarded to students of Government Engineering College, Idukki for the project "Land slide prediction and zone based smart alert" and the 2<sup>nd</sup> prize was awarded to a student of IIT, Madras for the project "Dolphin inspired propulsion system for marine vehicle". In the category of Woman Innovator, a cash award of INR 20,000 was won by Ms. Vinisha Umashankar of The Path Public School, Malappambady, Tamil Nadu for her project "Smart Ceiling Fan". In the inhouse project competition Creativo, students of Dept. of Mechanical Engineering guided by Ms. Vidya Chandran, Assistant Professor, Department of Mechanical Engineering bagged the first place for their project "Hydro Vortex Power Generator".

## **Paper Publications**

A paper titled "Capacity of short circular CFST columns with inner vertical plates welded intermittently "by Mr. Sandeep T N, Assistant Professor, Department of Civil Engineering has been published by Elseiver in the SCI indexed journal 'Journal of Constructional Steel Research', a science direct journal with SCI impact factor 2.028. A paper titled "Secure brain to brain communication with edge computing for assisting the paralyzed patients" has been published by Ms. Sreeja Rajesh, Assistant Professor, Dept. of CSE, Dr. Varun G Menon, Associate Professor, Dept. of CSE, Dr. Sunil Jacob, Professor, Dept. of ECE & Director, SCMS Centre for Robotics and Dr. Vinod P, Professor and HoD, Dept of CSE & Dean-Research and Publications in IEEE Internet of Things Journal with an Impact Factor of 9.5. This is one of the highest impact factor journals in Computer Science indexed by SCIE and Scopus. Ms. Vidya Chandran, Assistant Professor and Dr. Sheeja Janardhanan, Professor of the Department of Mechanical Engineering have published a paper titled "Towards reducing computational effort in vortex induced vibration predictions of a cylindrical riser" in the international multidisciplinary scientific journal Periódico Tchê Química.

# **Paper Presentations**

Ms. Asha S, Assistant Professor, Department of Computer Science and Engineering presented a paper titled "Evasion Attacks on SVM Classifier" at the 9<sup>th</sup> International Conference on Advances in Computing & Communications, IEEE held on 6<sup>th</sup> and 7<sup>th</sup> November 2019.

# Seminars and Workshops

Ms. Beena Puthillath, Assistant Professor, Department of Electrical and Electronics Engineering attended the Social sciences Research Colloquium, jointly organized by SCMS Cochin School of Business and School of Business, University of Petroleum and Energy Studies, Dehradun at SCMS Cochin School of Business, Cochin on 31<sup>st</sup> October and 1<sup>st</sup> November 2019.

Dr. Varun Menon, Executive Officer-Corporate Relations, attended the Reboot Kerala Hackathon Officers meet organized by the Higher Education department, Govt. of Kerala, in association with Additional Skill Acquisition Program (ASAP) on 7<sup>th</sup>

## **Campus Activities**

The 5<sup>th</sup> edition of the techno cultural national event Ascendio 5.0 was conducted by the IEEE student's branch at SSET from 25<sup>th</sup> to 27<sup>th</sup> October 2019. The three day event was inaugurated by Dr. Pattathil Dhanya Menon, the first woman cybercrime investigator of India. The event witnessed sessions by renowned personalities such as Ms. Rohini Mohan, award winning political journalist and Mr. Minon John, National and State film award winner among others. A total of 135 students took part in the event which also hosted group activities, cultural programs, Diwali celebrations and a technical quiz.

Association of Core Electricals (ACE) of the Department of Electrical and Electronics Engineering in association with SSET IEDC and DSC-SSET Chapter organized a crash course in Google Cloud Platform and 172 SSETians successfully completed the course and were also gifted badges and Google hoodies.

The Union Day celebrations 'DAKSH' were held on 8<sup>th</sup> November 2019 with Mr. Neeraj Madhav, Actor and Dancer as the Chief Guest. Students took part in various cultural programs and the event concluded with a DJ show in the evening.

SAEIndia Collegiate club of SCMS conducted a Tier 1 Student Convention college level event at our campus on 12<sup>th</sup> November 2019. The event saw participation from B.Tech Automobile and Mechanical Engineering students. Student Convention is the flagship event of SAEIndia Southern Section. This event comprises of more than 50 competitions which evaluate students on their design skills, presentation skills, local thinking, general knowledge and various other technical skills. A total of 12 events were conducted on the campus which included – Auto Quiz, Technical Paper Presentation, Diagrammatic Reasoning, Problem Solving and Group Discussion. The events were conducted and evaluated by the faculty and staff of the Department of Automobile and Mechanical Engineering.

#### **IEDC Activities**

Department of Electronics and Communication Engineering, in association with Innovation and Entrepreneurship development Centre – IEDC (Supported by Kerala StartupMission) organized a 2-day Workshop on ''Python and Raspberry Pi" for Engineering students on 28<sup>th</sup> and 29<sup>th</sup> October 2019. The complete course was conducted in hands-on mode.

#### **NSS Activities**

On 4<sup>th</sup> October 2019, an awareness class on plastic collection, segregation and disposal was conducted by the college NSS team in association with Njalukkara Navodaya library. Mr. Paulraj, IRTC spoke about the harmful effects of plastic and how different types of plastic need to be segregated for disposal.

As part of a workshop conducted at SSET, NSS volunteers undertook the task of making 250 paper pens. The volunteers were divided into two groups and separated into two companies, named as Sparks and Inkers. In each company there was a manger to lead the work. Under each company there were different levels such as production management, quality management and design management. In production management the body and cap of the pen was made whereas in quality management

the quality of the pen was assessed. In design management, the design and aesthetics of the pen were planned.

#### **Staff Achievements**

Dr. Varun G Menon, Associate Professor, Department of Computer Science and Engineering and International Collaborations & Corporate Relations -in charge has had the following titles added to his credit:

Appointed as Guest Editor for IEEE Sensors Journal in "Advanced Sensing and Sensor Fusion for Intelligent Transportation Systems." The journal is indexed in SCIE, SCOPUS with an Impact Factor of 3.076.

Appointed as Ph. D Thesis examiner for Visvesvaraya Technological University, Karnataka and Bharathiar University, Tamil Nadu.

Appointed as Publicity Chair of the IEEE International Conference on Omni-layer Intelligent systems Track on Advancement in IoT OSs: Opportunities, Challenges, and Solutions (COINS 2020), July 27-29, 2020 Barcelona, Spain.

Appointed as Technical Program Committee Member of the Hot Topics in Networking (HOT) Track of the 29<sup>th</sup> International Conference on Computer Communications and Networks (ICCCN 2020), to be held at the Hyatt Regency Waikiki Beach hotel, Honolulu, Hawaii, USA, August 3 - 6, 2020.

Appointed as Technical Program Committee Member of IEEE International Conference on Communications (ICC) to be held from June 7-11, 2020 Dublin, Ireland.

Appointed as a Reviewer for IEEE Transactions on Intelligent Transportation Systems, IEEE Transactions on Industrial Informatics, IEEE Internet of Things Journal and IEEE Transactions on Green Communications and Networking

Mr. Noel Joseph Gomez, Asst. Professor, Dept. of Mechanical Engineering, was one of the resource persons for the five-day Faculty Development Programme - "Skill Intensification of Teachers through Technological Integration" organized by School of Legal Studies, CUSAT on 7<sup>th</sup> November 2019. He spoke on the topic "Soft Skills for Teachers" which also included lively and interactive activities for the participants. The session was deeply appreciated by the organizers as outstanding as well as excellent.

Ms. Parvathy M, Assistant Professor, Department of Electronics and Communication Engineering, completed her PhD from Noorul Islam Centre for Higher Education in the topic "Enhancement of Fully Parallel Turbo Decoder using Different Algorithms for Communication Applications" in August 2019.

Ms. Divya Nath K, Assistant Professor, Department of Electrical and Electronics Engineering completed her PhD from Vellore Institute of Technology for the thesis "Non-Destructive Method to Measure Moisture Contents in Food Items" and was awarded the degree on 5<sup>th</sup> November 2019.

#### **Student Achievements**

Mr. Anish B Soman and Mr. Balendu Divakar, students of S7ME1 had visited Salt Lake City, Utah on 9<sup>th</sup> November 2019 to attend the International Mechanical Engineering Congress and Exposition (IMECE) 2019 organized by American Society of Mechanical Engineers (ASME).

#### **Placement News**

The following numbers of offers were given to our 2020 batch students by various companies:

- 1. Carestack 1
- 2. Mu Sigma 2
- 3. Cognizant Technology Solutions 13

The final results of Zerone Consulting, Autobahn Trucking, Jaro, Experion Technologies, Suntec Business Solutions and Novelworx are awaited.

# **Career Guidance Program**

Dr. Jonathan Wakefield, International Relations Manager, School of Computing and Engineering from University of Huddersfield, UK gave a talk on the topic "Current research areas and Higher studies opportunities abroad" on 25<sup>th</sup> October 2019 for final and pre final year students of B.Tech Computer Science & Engg.

## **JANUARY 2020**

## **Seminars and Workshops**

Ms. Sonal Ayyappan, Associate Professor, Department of Computer Science and Engineering attended a two day event at TENCON 2019, Region 10 IEEE technical conference at the Grand Hyatt, Cochin on 19<sup>th</sup> and 20<sup>th</sup> October 201.

Ms. Deepa K, Associate Professor and Ms. Nisha S Raj, Assistant Professor of Department of Computer Science and Engineering attended a AICTE Training and Learning (ATAL) Academy sponsored FDP on Blockchain Technology at SOE, CUSAT from 21<sup>st</sup> to 25<sup>th</sup> October 2019 and received merit certificates from ATAL Academy, New Delhi.

Dr. Sunil Jacob, Director, SCMS Center for Robotics and Professor, Department of Electronics and Communication Engineering attended a two day workshop on "LoRaWAN for IoT" by International Centre for Free and Open Source Software (ICFOSS) at Thiruvananthapuram from 9<sup>th</sup> to 11<sup>th</sup> November 2019.

Ms. Asha S, Assistant Professor of Department of Computer Science and Engineering, attended a talk on National Cyber Safety and Security Standards on 4<sup>th</sup> December 2019 at Integrated Startup Complex, Kalamassery, Cochin.

Ms. Deepa K, Associate Professor of Department of Computer Science and Engineering attended Dell Security Workshop on 5<sup>th</sup> December 2019 at Marriott Hotel, Lulu Kochi.

Ms. Rosebell Paul and Ms. Viji Gopal, Assistant Professors of Department of Computer Science and Engineering attended an AICTE sponsored ATAL FDP on Blockchain organized by Adi shankara Institute of Engineering and Technology, Kalady and Kerala State C-APT from 9<sup>th</sup> to 13<sup>th</sup> December 2019.

Ms. Nisha S Raj, Assistant Professor of Department of Computer Science and Engineering attended the 10<sup>th</sup> International Conference on Technology for Education at Goa University, Goa, India from 9<sup>th</sup> to 11<sup>th</sup> December 2019 and presented a paper

titled "A Rule-based Approach for Adaptive Content Recommendation in a Personalized Learning Environment: An Experimental Analysis".

Ms. Beena Puthillath, Assistant Professor, Department of Electrical and Electronics Engineering, participated in the "One Day Workshop in Preparing Effective Course Plans for Outcome Based Teaching and Learning' held at SCMS Campus, Cochin on 10<sup>th</sup> December 2019.

Ms. Prathibha N Pillai, Assistant Professor, Department of Electronics and Communication Engineering attended a three day workshop on "Recent Research and Application Trends in Underwater Sensor Technologies" at Kerala University of Fisheries and Ocean Studies, Panagad, Kochi from 11<sup>th</sup> to 13<sup>th</sup> December 2019.

Ms. Sreeja K A, Assistant Professor, Department of Electronics and Communication Engineering attended the 2<sup>nd</sup> EAI International Conference on Big Data Innovation for Sustainable Cognitive Computing at Coimbatore on 12<sup>th</sup> and 13<sup>th</sup> December 2019 and also presented a paper titled "Automated detection of retinal hemorrhage based on supervised classifiers and implementation in hardware".

## **Campus Activities**

Christmas was celebrated at the campus in the forenoon session on 20<sup>th</sup> December 2019. As part of the celebrations, a cake baking competition was held, carols were sung, games were organized and each department showcased programs such as dances and skits.

#### **IEDC Activities**

Government of Kerala had organized Maker Fest as part of "Kochi Design Week" on 14<sup>th</sup> December 2019 at Bolgatty Palace, Kochi. Maker Fest is the Indian continuation of Maker Faire hosted across globe. It is the amalgamation of festivals celebrating the innovators and an art show with booths for inventors, demonstrations, and workshops for attendees. SCMS had a stall at maker fest showcasing various products fabricated at SSET Fablab, IoT Lab and SCMS centre for robotics. Dr. Sunil Jacob, Vinoj P.G, Parvathi .R, Uma N, Dr. Sheeja Janardhanan & Dr Manoj Kumar B along with SSET students Mr. Anish B Soman & Sooryanath coordinated the SCMS stall.

#### **Staff Achievements**

Dr. Manoj Kumar B, Head of the Department, Automobile Engineering has been appointed as a subject expert in the panel for the Interview Assessment of J.N.TATA Endowment of the prestigious "TATA Trusts".

The Directorate of Environment & Climate Change, Department of Environment has funded the project 'Micro Plastic Pollution: Source characterization, transport modelling and assessment of impact on fish population in Kadambrayar river and Vembanad backwater region' for a total amount of 13,09,000. Faculty of Department of Civil Engineering, Dr. Nisha L, Associate Professor, is the Principal Investigator and Dr. Ratish Menon, Associate Professor is the Co-Principal Investigator.

Mr. Manoj Kalathil, Assistant Professor, Department of Mechanical Engineering was awarded the best paper of SAFE '19 under the theme Process Safety for his paper titled "A critical comparison of Fuzzy risk priority number with alternative risk

priority number in FMECA" at the National Conference on Safety and Fire Engineering (SAFE, '19) held at Cochin University of Science and Technology on 12<sup>th</sup> and 13<sup>th</sup> December 2019.

Dr. Varun Menon, Associate Professor, Department of Computer Science and Engineering and International Collaborations & Corporate Relations -in charge have been elevated to the grade of IEEE Senior Member for his significant contributions in Computer Science.

Mr. Jith J, Assistant Director of Physical Education was assigned as The Chief Coach of KTU University Cricket team which participated in the South Zone Inter University Cricket Championship held at Mysore University from 28<sup>th</sup> November to 11<sup>th</sup> December 2019.

Dr. Vinod P, Professor and HOD, Department of Computer Science and Engineering and Dean - Research and Publications, was a resource person at KTU Sponsored Faculty Development Program on "Glide Through Cognitive Computing" at MA College of Engineering, Kothamanglam, on 18<sup>th</sup> December 2019. He conducted a hands-on session on "Deep Learning for Natural Language Processing".

Dr. Vinod P, Professor and HOD, Department of Computer Science and Engineering and Dean - Research and Publications, was also a resource person at the Workshop on Recent Trends in Information Security and Data Sciences Research, at IIT Jammu, during 10<sup>th</sup> and 11<sup>th</sup> December 2019. He conducted sessions on Malware Visualization Techniques using Convolution Neural Networks. He also spoke on Adversarial Attacks on PDF based malware detectors.

#### **Placement News**

The following numbers of offers were given to our 2020 batch students by various companies:

Cognizant Technology Solutions – 13

The final results of Wipro, IBM, Experion Technologies, Autobahn Trucking and Novelworx are awaited.

#### **FEBRUARY 2020**

# **Paper Publications**

Ms. Jane Theresa, Assistant Professor, Department of Basic Science and Humanities, published a paper titled "Self-Revelation through Eco-Psychological Study of Voss by Patrick White" in the Journal 'The Criterion: An International Journal in English Vol:10, issue-VI, December 2019, ISSN: 0976-8165.

# Seminars and Workshops

Dr. Parvathy M, Asst. Professor, Dept. of ECE, Ms. Beena Puthillath and Ms. Reenu Bose, Asst. Professors of Dept. of EEE attended a short term training program on 'Electric Vehicle-Scope, Challenges and Developments' organized by the Division of Electrical Engineering, School of Engineering, CUSAT and Department of Electrical

Engineering, THDC Institute of Hydropower Engineering and Technology under the aegis of TEQUIP phase III from January 3-10.

Ms. Febini M. Joseph, Assistant Professor, Department of Basic Science and Humanities, presented a paper on 'Phonetics of Artificial Intelligence and the Indian Tongue: A Study of Fallacies and Mispronounces Words in the Indian Tongue' in the Two day National Conference titled Phonetics: Theoretical Underpinnings and Research Explorations organized by the Department of Phonetics and Spoken English during November 19 to 20.

Ms. Divya M. S., Assistant Professor, Department of Basic Science and Humanities, participated in the National Seminar on 'Critical Theory and Ecological Interconnectedness' organized by the Post Graduate Department of English, BCM College, Kottayam on December 2.

Ms. Jane Theresa, Assistant Professor, Department of Basic Science and Humanities, participated and presented a paper titled 'Self-Revelation through Eco-Psychological Study of Voss by Patrick White' in the National Seminar on 'Critical Theory and Ecological Interconnectedness' organized by the Post Graduate Department of English, BCM College, Kottayam on December 2.

## ISO 9001:2015 Certification

ISO 9001:2015 Audit of our institution was successfully completed by Mr. Vijay Mathew, Auditor from RINA, on January 3.

## **Campus Activities**

The Research Cell, SCMS School of Engineering and Technology in association with Innovation and Entrepreneurship Development Centre (IEDC) organized a three day workshop on 'The Art of Technical Writing and Publishing in the Pursuit of Academic Excellence' on January 13-15. The workshop witnessed registrations from 62 participants which included faculty, M-Tech students and PhD scholars.

The Department of Automobile Engineering – SAEIndia Collegiate Club of SCMS in association with SAEIndia Southern Section (Cochin Division) hosted Dr. R Rajendran, Chairman – SAEINDIA Engineering Education Board for an expert talk on 'Automotive Materials & Surface Engineering' on January 16. The talk covered the basics of design and the importance of material selection in a design and also the recent material selection trends and what are the current materials being used by OEMs for various components.

The Department of Computer Science and Engineering organized a talk on 'Data Science' by Mr.Manoj Trivikraman, Head of faculty, QcMore and Mr.Sherry Thomas, Sr. Consultant Data Science, Trainon, Pallimukku, Kochi on January 17.

The Kerala Blockchain Academy Innovation club of Department of Computer Science and Engineering conducted a technical session on Blockchain Technologies by Mr. Sethuraman O and Mr. Muhzin V S, Research Engineer, Kerala Blockchain Academy on January 17.

#### **Staff Achievements**

The project titled 'Hydro Vortex Power Generator' guided by Dr. Sheeja Janardhanan, Professor and Ms. Vidya Chandran, Asst. Professor of Dept. of ME has qualified for the Regional Round of Techthalon 2020 conducted by ICT Academy of Kerala.

Mr. Jenson Joseph, Asst. Professor, Dept. of ME has received the best paper award in the 2<sup>nd</sup> International Conference on Metallurgy Material Science and Manufacturing hosted by NIT, Trichy in December 2019.

Dr. Varun G Menon, Associate Professor in Dept. of CSE and International Collaborations & Corporate Relations-in charge has been selected as Managing Lead Editor for Computer Communications Journal indexed in Elsevier, SCOPUS and SCIE with impact factor 2.766. The issue is on Security and Privacy in Internet of Medical Things.

A research work carried out at SCMS Center for Robotics in assistive technologies for paralyzed people has been published in IEEE Internet of Things Journal with Impact factor 9.5. The work was a collaborative research by Dept. of ECE and Dept. of CSE and was carried out by Dr. Sunil Jacob, Dr. Varun Menon and Dr. Saira Joseph.

#### **Student Achievements**

The project titled 'Automatic Paddy Planter' by students of S7 ECE, Mr. Akhil Salim, Mr. Athul Antony, Mr. Arjun Ghosh and Mr. Jayashyam J, led by Dr. Sunil Jacob, Director, SCMS Centre for Robotics and Ms. Smitha P C, Lab instructor, ECE Dept. has been adjudged as one amongst the hundred and two best innovative ideas for Young Innovation Program (YIP) 2019-2022 conducted by Kerala Development and Innovation Strategic Council (K-DISC).

Two projects of Civil Engineering guided by Asst. Professors Ms. Airin M G and Ms. Anjana Susan John, two projects of Electronics and Communication Engineering guided by Asst. Professors Ms. Hazel E J and Mr. Vinoj P G and one project of Computer Science and Engineering guided by Asst. Professor Ms. Asha S have been granted financial assistance by Kerala State Council for Science, Technology and Environment (KSCSTE) in engineering stream.

A paper titled 'SysDroid: A Dynamic Machine Learning-based Android Malware Analyzer using System Call traces' has been accepted for publication in Springer Cluster Computing with SCI indexing and impact factor 1.9. The research was performed by Ms. Ananya and Ms. Aswathy A (BTech -2019 passout CSE)

#### **Placement News**

The following numbers of offers were given to our 2020 batch students by: Sutherland Global Services – 41

The final results of Wipro, Autobahn Trucking, Experion Technologies and IBM are awaited.

#### March 2020

## Workshops

Ms. Srilekshmi M, Asst. Professor, Dept of ECE and 13 students belonging to various department of SSET attended the Professional Summit held at CUSAT on February 15.



Ms. Srilekshmi (extreme left) and student representatives at the Professional Summit held at CUSAT.

## **Paper Publications/ Presentations**

A paper titled 'Depth information enhancement using RGB-D' by Dr. Sunil Jacob, Professor of Dept. of ECE and Director, SCMS Centre for Robotics, Dr. Varun Menon, Associate Professor, Dept. of CSE and Dr. Saira Joseph, Associate Professor, Dept. of ECE has been published in IEEE Sensors journal Open issue. The journal is Q1, SCIE indexed with an impact factor of 3.076.

Ms. Jane Theresa, Assistant Professor, Department of Basic Science and Humanities, presented a paper titled "Exploring the Dynamics of Men and Masculinity in the Novel 'Woss' By Patrick White" in the Two day International Conference, Gendering Literature and Culture: Austrailia and the Asia-Pacific conducted by Department of English, University of Madras on January 20, 21.

Ms. Divya M. S, Assistant Professor, Department of Basic Science and Humanities, presented a paper titled "Re-examining the Aspects of Hegemonic Masculinity in Salman Rushdie's 'The Satanic Verses', in the Two day International Conference, Gendering Literature and Culture: Australia and the Asia-Pacific conducted by Department of English, University of Madras on January 20, 21.

# **Campus Activities**

NBA visit of our institution had taken place on February 14-16. Seven officials including a Chairman visited the campus for accreditation process of Depts. Of CSE, CE and ME.

The Indian Navy conducted Awareness cum publicity campaign at our campus on February 11. The campaign was addressed by LT. Rajeev Jha followed by an audio-visual presentation to the aspiring final and pre-final year B.Tech students.

Students of SSET who completed the Google cloud Platform crash course were given hoodies as an appreciation for their efforts. A total of 179 students across all branches successfully completed tasks assigned at different levels as part of the course.



Students proudly dressed in the hoodies given to them by Google for successfully completing the Google cloud Platform crash course.

Republic day was celebrated on January 26 with a flag hoisting ceremony presided over by Dr. Praveensal C J, Principal, SSET.



Students along with Dr. Praveensal C J, Principal and Mr. Gopalakrishnan, Workshop Supdt. at the flag hoisting ceremony.

#### **Staff Achievements**

Ms. Parvathy R, Assistant Professor, Dept. of ECE has been nominated as the Asst. Nodal Officer of SSET, IEDC.

#### **Student Achievements**

Mr. Aromal Sujith, sixth semester student of Dept. of CSE has won a Silver medal at the district Archery Championships.



Mr. Aromal Sujith (4th from right) at the district Archery Championships

Students of SSET emerged as the overall champions in the intra SCMS Sport fest

2020 held from February 10-15.



Students of SSET receiving the trophy for overall champions at the Intra SCMS Sports Fest 2020.

## **Placement News**

The following numbers of offers were given to our 2020 batch students by:

Redblack Software – 2

UST Global - 1

VVDN Technologies - 1

The final results of Wipro, Autobahn Trucking, Byju's Think and Learn, Hexaware Technologies and Muziris Softech are awaited.

Ernst and Young conducted their one month paid internship online test for pre final year B.Tech CS and EC students on February 12.

# April 2020

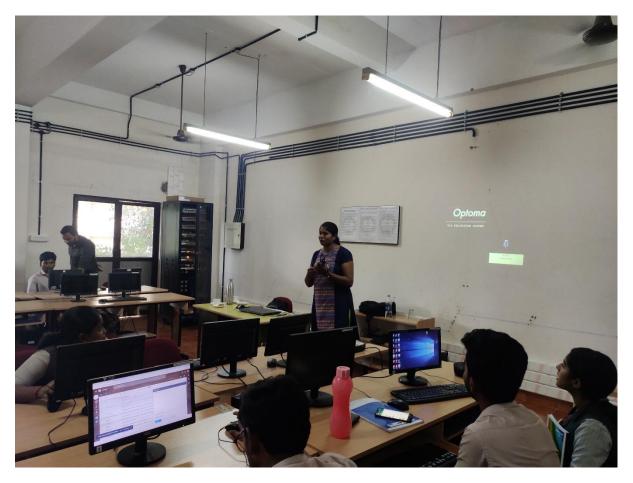
# Workshops

A two day hands-on workshop on 'Mud and Bamboo Construction' was held on March 5 and 6. It was conducted by Habitat Technology group and was organized by the Civil Engineering Association FRAMES and IGBC chapter of SCMS School of Engineering & Technology. The workshop was inaugurated by Padma Shri Dr. G Shankar, the founder chairman of Habitat Technology group. Dr. Shankar gave a seminar session on good construction practices using mud and bamboo. Er. T P Madhusudanan, Sr. Consultant and International Trainer from Habitat Technology Group led the workshop session for students. They were given a chance to explore and experiment with sustainable methods of construction. While speaking about the recent floods and disasters, both Dr. G Shankar and T P Madhusudanan instilled in the students, the truth that disasters are not caused by nature, but by structures.



Padma Shri Dr. G Shankar addressing the gathering during the workshop on Mud and Bamboo Construction.

A two day hands-on workshop was conducted by BIMLABS Engineering Services Pvt for the second and third year Civil Engineering students on March 9 and 10. Ms.Sujisha V, Assistant Manager-Technical and Mr.Aslam Mohammed Ashraf, Technical Engineer representing BIMLABS, were the resource persons for the two day hands on workshop on FormIt 360 and Dynamo studio. 30 students attended this workshop. On the first day, students were made familiar with the softwares and on the second day a Design Challenge to create a Township using Formit 360 was conducted.



Ms.Sujisha V, Assistant Manager-Technical, BIMLABS addressing the students during a session of the workshop

The department of Electrical and Electronics Engineering conducted a one day workshop on "Basics on Electric Vehicle Design, Manufacturing and Safety" for Sixth and Eighth Semester students on March 9. The course was intended to introduce students to the basics in planning and executing the process of building an electric vehicle. On completion of the workshop, students were able to understand the basic terminologies and ideologies in electric vehicle architecture.



(From left to right): Angagha Anil, S8 EEE student, Ms.Deepa S., Associate Professor, Mr.Naina Mustafa and Mr.Akshay C A, Workshop Coordinators, Hound Electrical, Kakkanad and Ms. Lakshmi C R, Assistant Professor during the valedictory function

The Department of Electronics and Communication Engineering Association EXPLORA, organized a Swarm Robotics Workshop from March 4 to 7 for sixth semester ECE students. Students learnt how to use Corel Draw software to design the chassis of the robot, Arduino programming, interfacing of various sensors and motors and each team built a robot during the workshop.



Sixth semester students of Dept. of ECE along with resource faculty and staff of the workshop proudly displaying the robots built by them

Department of Automobile Engineering in association with SAEIndia Collegiate club of SCMS & Innovation and Entrepreneurship development Centre – IEDC (Supported by Kerala Startup Mission) organized a 2-day Go Kart Workshop exclusively for B.Tech / B.E / Dip students on February 19 & 20. Students of technical institutions from all over Kerala and Chennai attended the event. The workshop was used as a platform to share the rich experience of our students in designing and building Go Karts. The workshop was divided into two sections – Section 1 focusing on IC engine karts and Section 2 on – Electric karts.



Glimpses of the Go Kart workshop organized by Department of Automobile Engineering

# **Expert Talks**

An Expert Talk on 'Emerging Trends in Electric Vehicle Technology' by Er. VijayanNandalan, Former Scientist, ISRO was conducted by Department of Electrical and Electronics Engineering on March 6. The speaker gave an insight to various components and its present status of Electric Vehicle technology and future scope. Dr.Praveensal, C. J, Principal, Dr. M. Nandakumar, HOD of Electrical & Electronics Engineering department, Ms.Deepa S, Associate Professor and student convener Mr.Shaheen. T. R spoke during this occasion.



Er. VijayanNandalan, Former Scientist, ISRO addressing the gathering during the inauguration of the expert talk session

# Paper Publications/ Presentations

Ms.Febini M. Joseph, Assistant Professor, Department of Basic Science and Humanities, presented a paper titled "Cultural Identity and Language Acquisition through AI story Telling: Analysing Possibilities for Visually challenged students" in the Second International Conference on Indigenous Languages: Towards Sustainable Multilingualism conducted by Department of Humanities and Social Sciences, Indian Institute of Technology Madras in collaboration with Centre for Endangered Language Studies and the Department of Humanities and Social Sciences, Indian Institute of Technology Patna and Central Institute of Indian languages, Mysore, on February 13 and 14.

Ms.Divya M. S, Assistant Professor, Department of Basic Science and Humanities, presented a paper titled "A Study on Women Education-Educate and Empower", in the Three day International Seminar on An Equal World is an Enabled World: Realizing Women's Power and Women's Day Celebrations-2020 organized by St. Joseph College of Teacher Education for Women Ernakulam, in collaboration with the Kerala State Higher Education Council (KSHEC), Council for Educational Administration and Management (CEAM) and Association of International Researchers of Indian Origin (AIRIO), Kerala from March 8 to 10.

Dr. Sunil Jacob, Director, SCMS Centre for Robotics, Dr. Varun G Menon, Associate Professor, Dept. of CSE, Dr. Saira Joseph, Associate Professor and HoD, Dept. of

ECE and Mr.Vinoj P G, Assistant Professor, Dept. of ECE have published a paper titled "A Novel Spectrum Sharing Scheme Using Dynamic Long Short-Term Memory With CP-OFDMA In 5G Networks" in SCI indexed Q1 journal, IEEE Transactions on Cognitive Communication and Networking.

Dr. Vinod P, Professor and HoD, Dept. of CSE and Dean-Research and Publications published an article titled "Can Machine Learning Model with Static Features be Fooled: an Adversarial Machine Learning Approach", in the SCIE Indexed Journal Cluster Computingpublished by Springer.

# **Campus Activities**

International Womens Day was celebrated at SSET on March 9 with a talk by Ms.LathaParameswaran, Director, Kottaram Group on the topic 'Journey of a Woman Entrepreneur". Ms.Latha spoke on the importance of men providing the necessary opportunities for women to excel in their workplace and urged all the students and faculty to update themselves constantly. She also stressed on the need to face all challenges with courage while ensuring that ethical and moral values were not compromised. During the talk, Ms.Latha elaborated on the difficulties faced during the initial years of establishing the family business and how she and her husband achieved each milestone. It was a very engaging session that left the audience both elated and inspired.



(From left to right): Mr. K C Mathew, Assistant Professor, Dept. of ME, Dr. Praveensal C J, Principal, SSET, Dr. Saira Joseph, Associate Professor and HoD, Dept. of ECE,

Ms.LathaParameswaran and Mr. M K Parameswaran, Directors of Kottaram Group and Mr. E M S Nair, Professor Emeritus, Dept. of ME

## **Faculty Development Program**

Dr. Vinod P, Professor and HoD, Dept. of CSE and Dean-Research and Publications attended a two day FDP on 'A Complete Understanding on Machine Learning with Hands on using Scikit-Learn' on March 2 and 3 at VIT, Vellore.

## **Student Achievements**

The students of Department of Automobile Engineering successfully participated in the Tier 2 (Regional Level) Student convention conducted by SAEIndia Southern Section. It is the flagship student competition conducted by SAEIndia Southern Section which focuses on showcasing student abilities in technical design, fabrication and problem solving. The regional event was held at TKM College of Engg, Kollam on Feb 21 and Amaljyothi Engineering College, Kanjirapally on Mar 7.

The following are the achievements of our students:

- 1) Group Discussion 1st Arjun V P (S6 AU)
- 2) Auto Quiz 2nd Arjun V P, Basil John, Prajul M P (S6 AU)
- 3) On Board Diagnostics 2nd AppuRanjith, Nihal K T (S8 AU)
- 4) Work holding 3rd Aveesh K A (S6 AU)

The above students will now represent SAEIndia Cochin Divison in National level (TIER 3).

The students of Mechanical Engineering department had a great run in the American Society of Mechanical Engineers (ASME) Engineer's Fest (E-Fest) Asia Pacific 2020 hosted by Marwadi University, Rajkot, Gujarat. The main event of the Fest was the Human Powered Vehicle Challenge (HPVC). Fifty Teams from the Asia Pacific Region were shortlisted to the final round that included teams from Premium institutions like IITs, NITs & VIT. The team "Velocity" of Final Year Students bagged the most coveted Championship Runner-up and also they were adjudged as Runner-up in the Best Design Category Award Team Rockers 6063 of Second Year received the Best Innovation Award in the event.



Students of Department of Mechanical Engineering who emerged winners at ASME E-fest Asia Pacific 2020

Students of S8 ME Ajay S Kumar, Anand Rajeev, Ashwin T and Gijo George Netticadan, guided by Dr.SheejaJanardhanan, Professor and Ms.VidyaChandran, Assistant Professor, Dept. of ME, secured the 3rd prize for All Kerala Techathlon 2020 by ICT Academy Kerala. After the initial screening, the team was shortlisted to the regional levels competition conducted at Jyothi Engineering College, Thrissur on January 29. The team qualified the regional round and was shortlisted to the top 32 teams for the grand finale which was held at GEC Thrissur, on March 5 & 6.



(From left to right): Dr.SheejaJanardhanan, Professor, Dept. of ME, Mr.SanthoshKurup, DEO, ICT Academy of Kerala, Mr.Sasi P M, CEO, IT Parks, Kerala, Mr. Ajay S Kumar, Mr.Anand Rajeev, Mr.Ashwin T and Mr.Gijo George Netticadan, Students of S8 ME and Ms.VidyaChandran, Assistant Professor, Dept of ME

#### **Placement News**

The following numbers of offers were given to our 2020 batch students by:

Byjus Think and Learn Pvt Ltd – 1

UST Global – 9

Hexaware Technologies – 4

VVDN Technologies – 2

Wipro - 6

The final results of Autobahn Trucking, Ford Motor Ltd and MuzirisSoftech are awaited.

#### June 2020

#### Webinars

Various departments conducted webinars/short term training programs for students of SSET as well as external participants to help bridge the gap between academics and industry. Eminent speakers were invited for the same as listed:

# **Electronics and Communication Engineering**

**High Level Overview of Product Development** by Mr. Sudheesh Sudhakaran, R&D Manager, ABB, St. Neots, UK on 27 June.

**Design of Digital Systems** by Mr. Lakshman M, ASIC Design Engineer, Juniper networks, Bangalore and Alumni of SSET, Batch 2012 on 20 June.

# **Mechanical Engineering**

**Intellectual Property Rights For Engineers** by Ms. Anjana Girish, Assistant Professor, Inter University Centre for IPR Studies, Cochin University of Science and Technology on 26 June.

**Short Term Training Program on '**Modeling and Simulation- An Engineering Perspective' from 22-27 June.

**Academia To Industry Transformation** by Mr. Abhishek Panicker, Asst. General Manager-Design, L&T, Mumbai on 20 June.

**Thermal Power Scenario In India** by Mr. Manmohan Krishan Sobti, Advisor, Power Projects, Technum-Tractebel Engineering Belgium & Former Director of Indraprastha Power Generation Co. Ltd, New Delhi, India on 20 June.

Way Forward For Indian Military Officer Aspirants by Mr. Vivek Menon, CEO, Comet Consultants, Kochi and Former Airforce Cadet, NDA Pune on 17 June.

**Engineering in the Oil and Gas industry** by Mr. Stephan James, Technical Communications Team Lead, Completions Product Group, Schlumberger, USA on 12 June.

**Human Heart Modeling And Simulation** by Prof. Dean Vucinic, Professor & Senior Research Scientist, Vesalius College, Vrije Universiteit, Brussels, Belgium on 5 June. **Entrepreneurship** by Mr. Sabin Mathew, Director, Imajey Consulting Engineering Pvt Ltd & Creator of Youtube Channel – "Learn Engineering" – Sharing thoughts & experiences on 2 June.

## **Civil Engineering**

**Demolition Of Live Structures** by Dr. Anil Joseph, Managing Director, Geostructurals on 15 June.

**Digital Project Delivery & Digital Twins With Iconic Project Examples** by Craig Garrett, Digital Advancement Academies Manager, Hub Speaker, Bentley Systems on 9 June.

Occurrence And Treatment Efficiency Of Pharmaceuticals In Landfill Leachates by Dr. Huan-Jung Fan, Professor, Dept of Safety, Health and Environmental engineering, Hungkuang University Taiwan on 2 June.

#### **Basic Science and Humanities**

**Human Resilience** by Dr. Dilip Barad, Professor and Head of the Department of English, University Of Gujarat on 10 June.

**Effective Time Management** by Prof.T. Ravichandran, Professor of English, IIT Kanpur on 6 June.

**Reaping Fortune From A Pandemic** by 5 June.

**Effective Resume Writing And Interview Skills** by Dr. Jominy Joice, Assistant Professor, Career Coach and Skill Development Trainer on 2 June.

# **Campus Activities**

The 'Ideation and Prototyping Centre' was inaugurated at SSET on 1 July by Vice Chairman, Prof. Pramod P Thevannoor in the presence of Group Director, Prof. S Gopakumar and faculties of SSET. The Centre is established with the intention of providing students with a platform to nurture their ideas and develop the prototype of their proposed ideas. Three first year students, Mr. Albert George (S2 EEE), Mr. Niranjan Santhosh (S2 ECE) and Mr. Salman Py (S2 EEE) also took part in the inauguration ceremony.



(From left to right) front row: Niranjan Santosh (S2 ECE), Albert George (S2 EEE), Prof. S Gopakumar, Group Director, Salman Py (S2 EEE), Mr. Praveensal C J, Principal and Prof Pramod P Thevannoor, Vice Chariman.

#### **Staff Achievements**

Ms. Vidya Chandran, Assistant Professor, Department of Mechanical Engineering, successfully defended her PhD thesis titled "Studies on hydroelastic response of marine risers under vortex induced vibration" on 29 June and was awarded doctorate degree from Karunya University, Coimbatore.

Mr. Varun Menon, Associate Professor, Department of Computer Science and Engineering delivered a talk on 'Avoiding publications in fake, hijacked or predatory journals' as part of a webinar conducted by Department of Information Technology, Al Musanna College of Technology, Sultanate of Oman on 1 July.

## **Student Achievements**

Mr. Albert George, S2 EEE student developed a low cost Automatic Liquid Dispenser during the lockdown period, using self procured components and was highly appreciated by the college and management for his efforts.

PHOENIX'20, an online kalothsavam conducted in connection with stay home campaign by the National Service Scheme, KTU cell, TKM Institute of technology and Mr. Jayakridhnan R, S6ME1, NSS UNIT no 584, secured first in Digital painting, third in Water colouring and third in Poster painting to emerge in Third position in the overall score.

# **COVID '19 Projects**

To combat the spread of the novel Coronavirus, Dr. Sunil Jacob, Director, Centre for Robotics had developed the following at SCMS Fablab with the assistance of Dr. Saira Joseph, Assoc. Professor and HoD, Dept. of ECE and Mr. Anil G, Librarian: Biodegradable Disposal Unit for Used Masks and Gloves, UV Disinfecting Box, Automatic Sanitizer Dispenser and personal protection equipment (PPE) such as face mask, shields and door opener.















(Clockwise from top left): UV disinfection box, Automatic sanitizer dispenser, Biodegradable disposal unit for used masks and gloves, 3D printed face mask, Y-splitter, Face shield and Door opener