

EMAGE Association Report

Electronics and communication engineering

**Sahrdaya College of Engineering and
Technology**

2019- 2020

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

SAHRDAYA COLLEGE OF ENGINEERING AND TECHNOLOGY KODAKARA, THRISSUR



EDUCATION IS DEDICATION

CERTIFICATE

The report gives the details of the activities conducted and various achievements obtained by the students and faculties of Department of Electronics & Communication Engineering Association (EMAGE) during the academic year 2019 - 2020.

Staff in Charge

Ms.Chinchu Jose

Assistant Professor

HOD

Dr. Vishnu Rajan

Associate Professor

Kodakara

EMAGE

Association Activities June 2019 to June 2020

FDP Conducted by ECE Dept :

KTU Sponsored FDP on DSP & It's Applications is conducted during 25 - 27 July 2019. Dr. Sathidevi (Dean, NIT Calicut), Dr. Murali Krishna (Scientist, NPOL), Dr. Rajesh M.V (Professor & Head, ECE Dept, Model Engineering College, Cochin), Dr. Varun P Gopi (NIT Trichy) Dr. K R Joy (PG Co-ordinator, Sahrdaya) handled the sessions.



Faculty Achievements

1. Dr. Vishnu Rajan is selected as JIFS, IOS Press SCI indexed journal reviewer.
2. Dr. Gnana King won “Faculty Excellence Award of Sahrdaya” during the academic year 2018-2019.
3. Caren Babu has completed her Ph.D and awarded the doctorate degree in Electronics and Communication Engineering on 18 th July 2020.

4. Dr.Vishnu Rajan, Ms.Binet Ros, Ms.Ambily Francis,Dr.Caren Babu ,Ms.Chinchu Jose obtained the completion certificate for various courses provided by coursera April -May 2020.
5. Dr.Caren Babu was selected as SCI indexed journal reviewer including IEEE Transactions.
6. Ms.Ambily Francis, Dr.Caren Babu and Ms.Chinchu Jose completed course on Machine learning and Matlab onramp in the month of July 2020.
7. Ms.Vidyamol George completed a diploma course on RPA design and development v1.0-educator Readiness program in the month of August 2020.
8. Dr.Vishnu Rajan was the resource person for the webinar on “Android App Development:An astounding rise in the midst of Covid 19 pandemic for organized by St.Thomas College(Autonomous),Thrissur on 24th July 2020.

FDPs Attended

1. Ms.Binet Rose Devassy & Ms.Silpa P A attended a KTU sponsored FDP on INDUSTRY 4.0 from 24/07/2019 to 28/07/2019 at Adi Sankara College of Engineering & Technology
2. Mr.Saran K B attended Robotic Process Automation program(ASAP 3rd & 4th October 2019 in GEC,Barton Hill,TVM
3. Dr.Gnana King attended External Auditors training at KTU in October 2019.
4. Dr.Vishnu Rajan & Ms.Chinchu Jose attended an FDP on Automation in the world of AI, ML and Data Science on 08/11/19 in TCS, Kochi.
5. Mr.Saran K B attended a two day workshop on “Design for Kerala” under Young Innovators Programme – Facilitators workshop on 28th & 29th November 2019 at Infopark, Koratty.
6. Dr.Vishnu Rajan & Ms.Binet Rose Devassy attended an AICTE sponsored FDP on Wireless Networks & Signal Processing from 4/12/2019 to 17/12/2019 at Jyothi Engineering College, Thrissur.
7. The faculties of ECE department attended an online FDP on "**Cyber Security - Enterprise Perspective**" on 05-08-2020 organized by the Department of Information Technology, PSG College of Technology.
8. Ms.Binet Ros Devassy and Ms.Chinchu Jose attended an online FDP on Post Covid Challenges and Opportunities in Healthcare.
9. Ms.Ambily Francis, Dr.Caren Babu and Ms.Chinchu Jose attended Online Faculty Development Programme on Artificial Intelligence and Machine Learning for Biomedical Applications (13th – 24th July 2020) organized by the Department of Biomedical Engineering, Sahrdaya College of Engineering and Technology, Kodakara, Thrissur.

10. Caren Babu participated in the online Webinar "Research proposal and grant proposal writing" by Prof. Chun Che Lance Fung, Director-Elect, 2021-22, IEEE Region 10, organised by IEEE IA/IE/PELS Jt. Chapter Kerala on 8th July 2020.
11. Caren Babu participated in the Webinar on Antennas in Biomedical Applications And MIMO Technology organized by Department Of Electronics & Communication Engineering, Jyothi Engineering College, Thrissur in association with IEI(ECE) students chapter on 24 June, 2020
12. Caren Babu attended online webinar on "Post Covid challenges and opportunities in health care" held on June 25, 2020 ,organised by Sahrdaya College of Engineering and Technology.
13. Caren Babu attended online webinar on "Yoga- A Stress Relief Mantra Against Covid" held on June 22, 2020 ,organised by Sree Narayana Institute Of Technology, Adoor
14. Caren Babu participated in the Webinar "The role of Digital libraries in online learning environment during the pandemic" on 24 June 2020 organized by Sahrdaya College of Engineering and Technology
15. Caren Babu participated in webinar on The Past, Present And Future Of Clean Energy Technologies: A Computational Perspective organized by Department Of Electronics & Communication Engineering, Jyothi Engineering College, Thrissur on 21 July, 2020.
16. Ambily Francis participated in the online Webinar " Research proposal and grant proposal writing" by Prof. Chun Che Lance Fung, Director-Elect, 2021-22, IEEE Region 10, organised by IEEE IA/IE/PELS Jt. Chapter Kerala on 8th July 2020.
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Paper Publications & Presentations

1. Dr.Vishnu Rajan published a paper titled in DMT Journal of Digital Integrated Circuits in Electrical Devices Volume 4 Issue 2 in July 2019.

2. Ms.Silpa P A published a paper titled "One step synthesis of graphene" in inorganic and nanometal chemistry :Publishers Francis & Taylor, SCI Indexed Journal.
3. Caren Babu published a paper in *International Journal of Recent Technology and Engineering (IJRTE)*, ISSN: 2277-3878 (Online), Volume-8, Issue-5, January 2020. pp. 3094- 3098 (Scopus indexed).
4. Caren Babu, Chandy, D. A., (2020). A Review on Lossless Compression Techniques for Wireless Capsule Endoscopic Data. *Current medical imaging*, 10.2174/1573405616666200423084725. Advance online publication. <https://doi.org/10.2174/1573405616666200423084725>. (Impact factor- 0.533).
5. Caren Babu, Chandy, D. A. Performance of predictive coders for wireless capsule endoscopy image compression. *International Journal of Recent Technology and Engineering (IJRTE)*, ISSN: 2277-3878 (Online), Volume-8 Issue-5, January 2020. pp. 3094- 3098. doi:10.35940/ijrte.E6388.018520. (Scopus indexed).
6. Ms.Silpa P A presented a paper on international conference on technological convergence in engineering,energy and sustaina held at vimal jyothi engineering college,kannur ,July 18 and 19th ,2020.
7. Ambily Francis has successfully presented and published a paper entitled 'Arduino-based Automated Washroom Sanitizing System' in the International Conference on Intelligent Computing and Control Systems organized by Vaigai College of Engineering during 13-15, May 2020 at Madurai, India.
8. Ambily Francis has successfully presented a paper entitled 'Grass-cutter Rover being Automated by Space-tracker system' in the International Conference on Advances in Computing Technologies organized by Rajarajeswari College of Engineering during 18-19, June 2020 at Bangalore, India.
9. Ambily Francis published a paper 'Grass-cutter Rover being Automated by Space-tracker system' in *International Journal of Advanced Science and Technology* (Scopus Indexed), June 2020.
10. Ambily Francis published a paper 'Design and application development of underwater communication' in *Solid State Technology*(Scopus Indexed), June 202

Book Chapters Published

1. Ms.Caren Babu published a book chapter titled Chapter titled "Analysis of various color models for endoscopic images" published in *Advances in Computerized Analysis in Clinical and Medical Imaging*, CRC Press, 2019 published by Taylor and Francis

Resource Person for Workshop

1. Dr.Vishnu Rajan has given a workshop on “IOT & Mobile Servicing” in September.2019 in College of Engineering, Pathanapuram.

Patent Filed

1. Ms.Silpa PA filed an application for indian patent titled"Graphene optical data storage using nanoholes" with number 201941026006
2. Indian patent was obtained for the project Marijuvana Detector guided by Ms.Ambily Francis of ECE department and Dr.Dhanya of BTE.

Extension Programme to Schools

1. EC Dept conducted ROBOTICS Workshop for GOVT VHSC GIRLS , IJK 27th September 2019
2. EC Dept conducted ROBOTICS Workshop for SN School , Irinjalakuda 11th October 2019



3. On 27th and 28th Dec 2019 , a workshop on Mobile servicing and Robotics was conducted for plus 2 students from various schools by students of 2017 and 2016 batch.



4. A workshop on IOT and Arduino was conducted by Ece students in association with Hardware Club on 25 Jan 2020 for students of Little Kites Matha High school. Team members are Jibin george, Fabius S, Grigary, Serene and Sneha Satish.



5.A workshop on IOT and Arduino was conducted by S6 students in association with Hardware Club on 19 Feb 2020 for students of HSS Valayanchirangara,Perumbavoor.Team members are Grigary,Serene and Sneha Satisha and Christo.



6. An initiative by Dr. Vishnu Rajan for high school students



7. An online automated quiz Centre is started by the combined efforts of all staff members of ECE, hosted at freecourses.sahrdaya.ac.in, already utilized by 15000+ students worldwide



Student Achievements

- A Student project of Mr.Arun Krishna, Ms.Smera Kurian, Ms.Angel Joshna under the Guideship of Dr.Gnana King shortlisted for the AICTE vishwakarma Award 2019.
- An Internship program on basics of Robotics was organized by Hardware Club,in association with EMAGE on 10 July 2019 .55 students of 2018 admissions from various branches and lab assistants attended the same.
- 5 students of S5 ECE participated in Expert lecture by Gabe Gabrielle ,Former Engineer ,NASA ,on 10th of Oct 2019 at Christ College ,Irinjalakuda.
- 2 students Agnet Soman and Alisha Jose of S4 ECE participated in Kerala startup mission Hackathon on Women and business better through technology.



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- 3 students:Mr. Fabius S Thottappily of ECE 2017-2021 batch,Nicemol of 2018 batch and Nima Cherian of 2015 batch was awarded the Best Academic Performer Award among all colleges of Thrissur district by UIT group international.



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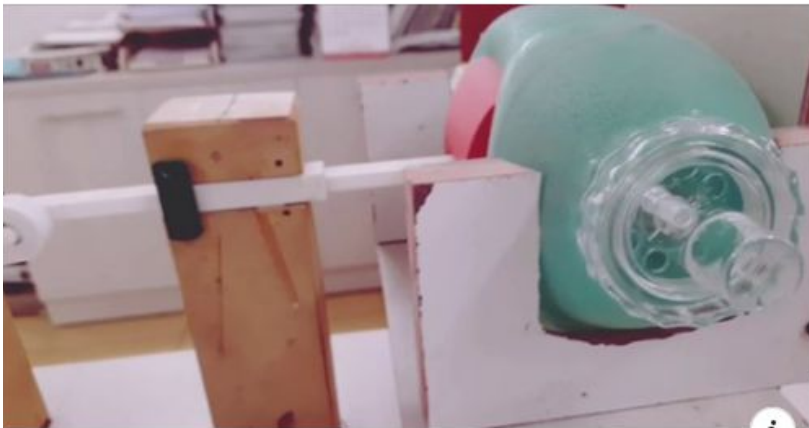
Congrats Rahul S Warriar for "Foot Pedal Hand Sanitizer Dispenser" made at home by own design and simple way of working.....🔥🔥🔥



7. Astle John & Team developed a low cost ventillator

Congrats Astle John & Team who worked hand on hand with zaara biotech to make things possible

<https://youtu.be/tjgWkd7ofME>



8. Terin of S6 ECE developed a touchless IOT based electrical equipment operation system.

9. A five day online PYTHON BOOTCAMP for beginners was organized by hardware club in association with IEDC from September 3rd to 6th, 10-11:30 AM, and a coding competition on September 7th, 2:00-3:00 PM. The bootcamp was conducted via Webex meetings. Introduction to programming languages, why choose python, variables, data types, loops, statements, list manipulations, functions, using external libraries were the topics covered.



Workshops/Seminars Attended by Students

1. An Internship program on basics of Robotics was organized by Hardware Club, in association with EMAGE on 10 July 2019 for 2018 batch ECE admissions .



2. A Peer skill training session on arduino programming was given to S3 ECE students on 26th Sept,2019. Trainers:Richard Joy,Joseph,and Astle of S7 ECE .



4. 17 students from 2016 and 2017 batch attended a 5 day workshop on Basics of C programming from Jan 7 to jan 13,2020.



❑ **Webinar** on "Career Options and Opportunities for Electronics Graduates" was scheduled on 3rd June 2020 at 11 a.m by EMAGE-Association of ECE

department for students from various branches of our college. The session was for 1 and half hrs followed by Q/A lead by **Mr. Renjith C.V. , Product Designer Philips India, Ltd. , Pune.** 127 students participated in this webinar.

The webinar reviewed on :

- ❑ an overview on the opportunities in the core Electronics field
- ❑ an overview of Product Development and Industry
- ❑ an overview of the opportunities after Engineering (Higher Study/Job)
- ❑ an overview on how to enhance skill sets and the short term/online training in Embedded System, DSP,VLSI,AI/ML, IoT etc
- ❑ an overview of the expectation from Industry.



Dept. of Electronics and Communication Engg.

WEBINAR

Career Options and Opportunities for Electronics Graduates

3rd June 2020
11:00 AM

Guest of the Day
Mr. Renjith. C.V
Electrical Architect/Product Designer at Philips India LTD, Pune

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College of Engineering & Technology
Kodakara - Thrissur - 680684

Alumni Interactions/Industry Interaction :

1. Alumni of 2017 pass out batch Mr. Richu Davis interacted with the students on 30th August 2019.



2. Alumni of 2015 pass out batch Clinton Davis , (Director,Solwatt pvt. Limited) interacted with S5 ECE students on 15th October 2019.



3. Alumni of 2018 pass out batch Ms.Megha Mohan working at CTS interacted with 2017 batch students on 2nd November 2019



4. Alumni of 2017 pass out batch Mr.Manuel Johnson ,Developer at TATA Elxi interacted with 2016 batch students on 17th Jan 2020.Mr. Manuel secured a reward of 2000 US dollar from facebook for finding out a security breach in Whatsapp.He was also included in 2018 Hall of Fame number 66.



5. Industrial interaction by Mr.Ayyapadas ,Hardware Developer at Intel for 2017 batch on 16th Jan 2020.



- Industrial interaction by Mr.Shidhin ,Senior Google Developer working at Namshi ,Dubai for 2017 & 2018 batch on 24th Jan 2020 .



- Mr. Anoop Santosh, CTO of Ronds Technology, Cochin interacted with students of 2017 and 2018 batch admissions on the topic Emerging Trends in Industries on February 1st..



Student Activities

- ❑ 2017 batch ECE students conducted an Industrial Visit Trip in July 2019.
- ❑ Industrial visit to CMET, thrissur as part of national science day on 27th February 2020.



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- ❑ Peerskill sharing on Arduino was conducted on 18th Feb 2020 by and for 2017 batch ECE students.



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- ❑ An Industrial visit to Agappee Diagnostic centre field visit on 6-3-2020 for students in Agappee Training.



- ❑ Seminar on **Road map to Internship powered by internshala** was conducted on 6 March 2020 for 2017 and 2018 batch admissions of ECE by Mr.Fabius S Thottapilly of S6 ECE.



- ❑ **DAC meeting** was conducted on 1st February 2020 presided by Mr.Anoop Santosh ,CTO,Rond Technology,Cochin.



Covid Safety Initiatives by ECE

1.Sanitizer preparation:

[Sanitizer preparation video](#)



2. Automatic hand sanitizer

Stay clean,
green and
safe!



Innovation
For Humanity



Designed & Developed by
SAHRDAYA
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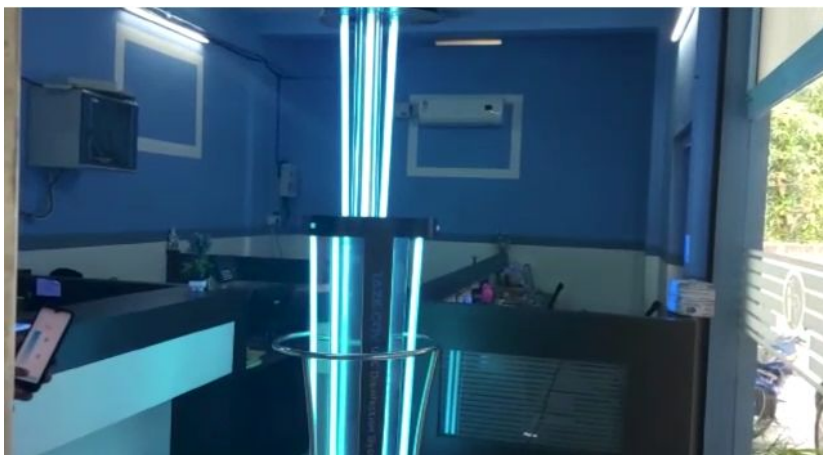
**CONTACTLESS
HAND SANITIZER**

3.Mr.Astle John,2016-2020 batch ECE student was part of **LUMOS**, a multipurpose decontamination device by Devaditek Innovations-a startup of Sahrdaya. It can sanitize items like N95 masks and vegetables and help check Covid-19 spread.Lumos, which collaborates with the Collegiate Congress under the United Nation's Master Plan initiative, is also being distributed overseas where the pandemic has hit the hardest. The first lot is getting shipped to

Mali, Ecuador, Zimbabwe, Ghana and Haiti, with the support of the Collegiate Congress of the UN Master Plan.



4. Mobile app based control section of this UV sanitization device of **IBIS Medical Systems** is developed by IEDC Hardware Club leaders Richard Joy and Joseph Joshy (Final Semester ECE students).



5.COVID Maskhunter: An AI based mask detection and analysis system for public use was developed by EMAGE.