

- An Annual Newsletter of ECE Department 2021-22

Overview

Spread across the 67 acres of land, Rajiv Gandhi Institute of Technology, Kottayam is renowned for being the sanctum of academic excellence. Holding its pride, the Department of Electronics Engineering Communication fosters student community diligent to serve and contribute to society. Established in the year 1991, the department has evolved to inculcate excellent technical knowledge to foster proficient electronic - communication engineers.

The Department offers an undergraduate degree [B-Tech] and two post-graduate programme [M-Tech]. It has has thrived to magnificence through its 30+ dedicated staff members and 300+ zealous students. The numerous accolades of the faculty and students including funded projects and excellent placement statistics manifest the platform it furnishes in the growth of the community.

Here at RIT, we believe learning is a process, wherein passion meets purpose. This newsletter is an open bulletin on the achievements of our department in the academic year June 2021- June 2022. With an intention to continue inspiring the generations to come, the Department of Electronics and Communication extends its focus on renewed vision and revived commitments.

Vision

To be a centre of excellence in Electronics Engineering education for the benefit of mankind.

Mission

Impart high quality professional education in the field of Electronics and Communication Engineering through state-of-the-art facilities and teaching-learning process.

Provide a strong theoretical foundation to pursue higher education and research in Electronics and allied areas.

Foster innovations in technology to provide solutions to the technological needs and challenges in the society.

PEOs

PEO-I - Apply theoretical and practical knowledge acquired through teaching learning process to creatively solve technical problems pertaining to industry, academy and society.

PEO-II - Pursue higher studies and research in Electronics and Communication and related engineering or managerial fields.

PEO-III - Exhibit leadership with professionalism to interact effectively in a multi-disciplinary team to become successful entrepreneurs.

From the HOD's Desk

I am extremely pleased to bring out the annual newsletter of the Department of ECE- "The Teslart" 2021-'22. For a department that is packed with highly dynamic students and staff members who could not do as much as they would like in the past two years, the year 2021-'22 was a great relief. The achievements, activities, publications, and other important happenings of both students and staff members have been reported in this newsletter.



I thank our Principal Dr. C Sathishkumar for being the real driving force behind this newsletter. I appreciate the commendable effort of Staff Editor, Prof. Nimmy George, Student Editor, Miss. Liya Ann Thomas and the student group in releasing this newsletter.

I wish all the best for the promising engineers of tomorrow and let all your contributions count to the growth of society forever.

- Dr. Anil Kumar C D

From the Dean's Desk

It has been my privilege to work at the Department of Electronics and Communication Engineering, Rajiv Gandhi Institute of Technology (RIT), Kottayam since 1993. As one of the senior most professors in the campus, it is heartening to recall the growth of RIT during the past three decades, going through successive landmarks of transformation. Although the Institute has gone through enormous growth over these years, its tradition remains the same.



Apart from the strict academic discipline, RIT campus offers ample freedom to the students to develop their skills and personality by taking part in various co-curricular and extracurricular activities. Department of ECE, RIT is one of the most sought after in the state as we offer the best infrastructure, training by well qualified faculty members, and chance to get a placement in blue chip companies. Happy to note that our Department is bringing out a newsletter to document the major activities and achievements during 2021-22. Let us all move ahead with focus and confidence to achieve greater heights.

- Dr. Leena Mary

From the Editor

I have immense pleasure to publish Newsletter 2022 for the academic year June 2021-June 2022 for the Department of Electronics and Communication Engineering. Contentment of a teacher often lies in seeing the progress and achievements of their students. To work with students and to nurture their workmanship were the best moments in my life as a professor. What this newsletter reflects is nothing but the pulse of each student of our Department.



I take this opportunity to thank Principal Dr.C.Sathishkumar, Head of the Department Dr. C.D.Anilkumar, staff members and dedicated students for their whole hearted cooperation and support to release the newsletter.

Wishing all the best to my dear staff and students.

- Prof. Nimmy George

From the Student Editor

The academic year 2021-22, was indeed splendid for our Department, as we witnessed the return of campus life post-covid scenario. With a wonderful faculty association alongside a bunch of high-energy student community, everyday was phenomenal for the department. Despite barriers, we were able to host the inter-department cricket tournament Challengers 2k22 and intra-department techno-cultural fest Prominence'22 - thus announcing the spirit of an over-achieving department.



"The Teslart"- is a compilation of warmth and synergy that every ECEian has experienced. The joy of being part of this newsletter is beyond expression. I thank Principal, Dr. C Sathishkumar, Head of Department, Dr. Anilkumar.C.D and Prof. Nimmy George for their constant mentorship in the release of this newsletter. Also, I extend my sincere gratitude to Design Lead, Deva Nandan K V of S6 ECE, other Editorial Board members, teachers and students for their cooperation.

- Liya Ann Thomas

EDITORIAL BOARD



Prof. Dr. Anil Kumar C.D Prof. Dr. Leena Mary





Prof. Nimmy George



Liya Ann Thomas **Student Editor**



Deva Nandan K V **Design Lead**



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Aswin K R **S6**



Anjali S **S6**



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Mehrunissa **S6**



Joseph Francis Amal Sankar **S8**



S8



Liya Jomy S8



Melna S Monson **S8**



Irene Ann **S8**



Arun T 54



Jobin Jose S2

FACULTY



Dr. Anilkumar C.D Professor



Dr. Leena Mary Professor



Dr. Manju Manuel



Dr. Renu Jose





Dr. Upama Rajan M N Dr. Arun Varghese Dr.Rezuana Bai J Associate Professor Associate Professor Associate Professor Associate Professor



Premson Y Associate Professor



Umesh A.C Associate Professor



Associate Professor



Dr. Neetha George Associate Professor



Sujithamol S. Associate Professor



Josemartin M. J. Associate Professor



Nimmy George Assistant Professor Assistant Professor



Shinoj K. Sukumaran



Renjith H Kumar



Dr. Michael George Assistant Professor Assistant Professor



Dr. Helen Mary M C Assistant Professor Assistant Professor



Christin Markose

TECHNICAL STAFF



Alphonsa M P Instructor Gr.I



Beena V S Instructor Gr.I



Asokan R Instructor Gr.II



Mujeeb P.I



Sigimon P.M.



Dileep P





Vinny David P Trade Instructor Gr.II



Bijumon PT Tradesman



Anoop A V Tradesman



Vishnu S Tradesman



Trade instructor Gr-I Trade instructor Gr-I Trade instructor Gr-II Trade instructor Gr-II

Kiran K



Trade Instructor Gr.II

Abhilash D S Trade Instructor

FACULTY ACHIEVEMENTS

Publications

- Leena Mary and Deekshitha G. published "Multilingual Broad Phoneme Recognition and Language-independent Spoken Term Detection for Low-resourced Languages", in Journal of King Saud University - Computer and Information Sciences, Elsevier (SCIE), 2021.
- Leena Mary & Sreehari R published "Automatic Short Utterance Speaker Recognition using Stationary Wavelet Coefficients of Pitch Synchronized LP Residual", in the International Journal of Speech Technology, Springer (SCOPUS Indexed), Sep. 2021.
- ➤ Leena Mary, Devi Krishna and Anu George published, "Automatic Severity Evaluation of Articulation Disorder in Speech using Dynamic Time Warping", at the Fourth International Conference on Microelectronics, Signals and Systems ICMSS 2021, Kollam, Kerala, Nov 2021.
- Leena Mary, Anu George and Greeshma Unnikrishnan published, "Non-uniform Region Based Features for Automatic Language Identification" at the Fourth International Conference on Microelectronics, Signals and Systems ICMSS 2021, Kollam, Kerala, Nov 2021.
- Renu Jose, N. A. Mathew, and K. S. Riyas published "Comparison Of Machine Learning Algorithms For Heart Rate Variability Based Driver Drowsiness Detection" at 2nd Global Conference for Advancement in Technology (GCAT), 2021.
- Renu Jose and V. Vijayan published, "Performance Analysis of Modulation Classification Using Machine Learning," at the 8th International Conference on Smart Computing and Communications (ICSCC), 2021.
- Manju Manuel and Deepa Abraham published, "Design of Transmultiplexer Filter Banks Using Ramanujan Sums" in Natl. Acad. Sci. Lett. 44, 33-38 (2021).
- Manju Manuel and D. Abraham published, "Implementation of Sparse Ramanujan Sequence (SRS) based transforms in FPGA," at the International Conference on Communication, Control and Information Sciences (ICCISC), 2021

Manju Manuel and Devis Tomson published, "Hardware-efficient auto-reconfigurable hearing aids using 3-level octave interpolated filters for auditory compensation applications." in Physical and Engineering Sciences in Medicine 44.

Dr. Leena Mary was awarded "Outstanding Researcher 2021" by IEEE Kerala Section. Being phenomenal in her contributions to IEEE and the Research Community, she has always stood as the bar of excellence in influencing budding engineers.

Sponsored Projects

- ▶ Dr.Leena Mary was the Principal Investigator of the project "Modifying the design of automated Malayalam Articulation Test to improve accuracy for evaluation of children with severe articulatory disorders" funded by All India Institute of of Speech and Hearing (AIISH), Mysore Jan 2022-23, Rs. 5,80,000/-.
- Dr.Renu Jose pursued a KTU CERD Funded research seed money project "Machine Learning based Channel Equalization in Digital Communication Systems" with funding of Rs. 2,00,000/-.
- ▶ Dr. Michael George received the KTU CERD Funding to the tune of Rs. 2,00,000/- as part of the Research Seed Money Project on "An automated video surveillance system using Deep Learning". The funding has been spent on acquiring a deep learning capable workstation.
- Dr.Upama Rajan received TEQIP seed money of Rs. 2,00,000/- for the project "Multi packet reception for WLAN".
- Dr. Upama Rajan received CERD Funding for the final year project " IoT based smart irrigation system", Rs. 22,000/-.

Talk Sessions

- Dr. Leena Mary was invited to talk in the inaugural ceremony of FDP titled "Hands on Training on Latex Documentation Tool" organized by SCT Thiruvananthapuram during 24-25th, Sep 2021.
- Dr. Leena Mary was invited to talk at Mangalam College of Engineering on the topic "Relevance of Research in Teaching" on 18th August 2021.
- Dr. Leena Mary was invited to talk on "Career resilience for Women Engineers" at IEEE All Kerala Industrial Application Society Conclave on May 8th, 2022.
- Dr. Leena Mary was invited as the chief guest in the closing ceremony of Women In Power Summit 2021 organized by IEEE SB College Of Engineering Karunagappally on 28th Nov'21.
- Dr. Arun Varghese was invited to handle a session on "Numpy" for KTU sponsored FDP on Machine Learning organized by College of Engg. Attingal, on 2nd Sept 2021.
- Dr. Arun Varghese conducted a 3-day workshop on "DSP lab with 6713 DSK", for KTU faculty, on 24-26th Nov 2021.
- Dr. Arun Vargese was invited to handle two sessions on "Deep Learning Framework Pytorch" and "Deep-Learning for Computer Vision" for DTE sponsored FDP on 3rd and 4th Feb 2022.
- ➤ Dr. Arun Varghese was invited to handle a session on "Data wrangling with Python" for AICTE sponsored online refresher programme on Medical Data Analytics organized by Dept of Computer Applications, Anna University, on 6th Jan 2022.
- Dr. Michael George was invited as the resource person in the FDP on "Machine Learning for Engineering Applications" organized by CET during 20th- 22nd Dec 21.
- ➤ Dr. Michael George was invited as the resource person in the FDP on "Deep learning for Computer Vision" organized by Department of Electronics and Communication Engineering, R.I.T, Kottayam, during 31st Jan-5th Feb'22.

- ➤ Dr. Renu Jose was invited to handle a session as the resource person in the training program on "Machine Learning for Engineering Applications" from 20-22nd Dec'21 organized by College of Engineering, Trivandrum.
- Dr. Renu Jose was invited to handle a session as the resource person in the APJ AKTU Sponsored FDP on "Al and Data Science – A Pedagogical Approach " from 9th to 13th August, 2021 organized by SJCET Palai
- Dr. Renu Jose was invited to handle a session as the resource person in the training programme on "Deep learning for Computer Vision" organized by Department of Electronics and Communication Engineering, R.I.T, Kottayam., during 31st Jan- 5th Feb'22.

PhD

- Prof. Michael George was awarded PhD in "Electronics and Communication Engineering" on July 26th, 2021 from CUSAT.
- ➤ Prof. Neetha George was awarded PhD in "Study and Investigations on Algorithms for segmentation of OCT images for Ophthalmic Applications" on Feb 2nd, 2022 from Kerala University.

FDP Coordinators

- Dr. Arun Varghese & Dr. Michael George coordinated DTE sponsored FDP on "Embedded Systems Development" from 23rd to 25th February 2022.
- Dr. Helen Mary coordinated DTE sponsored FDP on "Deep learning for Computer Vision" organized by Department of Electronics & Communication Engineering, RIT, Kottayam, during 31st Jan to 5th Feb 2022.

DEPARTMENT NEWS

The Department of Electronics and Communication aims to offer a large and real platform for its students. And this often becomes the driving force for students to think out-of-box and contribute to campus life.

The academic year 2021-2022, witnessed a dynamic emergence of the department post covid scenario.



Department celebrates Holi'22

The **College Union Election** was held in the month of Jan 2022. Joseph Francis Pellissery of S8 ECE was elected as the Department Representative.



Students at Dept. hosted Challengers 2k22

With an aim to invoke physical skill of students, the department hosted a cricket tournament - Challengers 2022, in the month of May 2022. The round robin game was open to all batches of all departments-including BTech, MTech and MCA. The S8 ECE students organised the matches and arranged ground for the same. The tournament recognized players of the college and aided in accelerating classroom spirit.

The need for a First Aid Box was long felt in the department. On Feb 2022, the same was made available in the department. The Department fund was utilised for purchasing the same and basic medicines along with other medical items were made available. The First Aid Box is permitted to be available for other departments too.

The students celebrated **Holi** in the month of March 2022. The festive joy aided in reimbursing department spirit and unity.



Communications Lab

PROMINENCE '22 - Annual Techno-cultural Fest

With an intention to invoke the technical and creative minds of the department, PROMINENCE 22, the annual intra-department techno cultural fest was hosted on June 21st, 2022.

The event gathered electronic ideas of budding engineers into implementation level. From hobby circuit projects to drone expo and from workshops to photo recreation competitions, the event aided in invoking the zest of college students.



Prominence Logo at the event

The major highlights of the event include:

- The Mini Projects of department students were presented.
- Mr. Abhijith K, RIT Alumnus 2020 and Founder of Aion Creative Wings, hosted a two-day Workshop and Hackathon on Flutter on June 18th and 19th.
- An Idea Presentation Competition-Ideathon was hosted to support appreciable ideas through grant.
- A Drone Show was arranged, which included both Drone Expo and Flying.

The whole event was led under the guidance of third year students. Students and faculties from other departments were invited for the event. The day witnessed collective efforts of students and teachers in creating technical extravaganza.



Students at Drone expo



Students explaining projects to visitors

B-TECH FIRST YEAR

The **batch of 2021-2025**, known by name Sreshtas, has a total strength of 55 students.

Class Advisors: Prof. Renjith H Kumar Prof.Christin Markose

Class Representatives: Jobin Jose Athika Bindh Siraj

The classes commenced in the last week of November, with a week-long orientation program organised by the college.



First years at Munnar

On 27th November 2021, final year students interacted with them about the career in BTech and areas to be focused during their academic activities. Their offline classes commenced by the mid of December.

The batch is proactive and motivated in both curricular and non-curricular activities. They have won the SQUID Game competition organised by KSU RIT Unit on 20th Dec 2021 and was also the runner up of Tug-of-War competition organised as part of Fresher's Day Celebrations on 11th May 2022.

B-TECH SECOND YEAR

The **batch of 2020-2024**, known by name Samharas has a total strength of 74 students.

Class Advisors: Prof. Jose Martin M J Prof. Sujithamol S

Class Representatives: Adarsh Reghu Jisa Varghese

The batch is lively and active in both scholastic and co-scholastic activities.



Second years on freshers' day procession

Academically, the batch is super good with Anagha Suresh, Annu Mary Roy and Minta Merin Jacob leading on top with CCPA 10.

The football team from their class has won the Freshers Cup Runner up title 2022, hosted by RIT College Union on 13th Feb 2022.

B-TECH THIRD YEAR

The **batch of 2019-2023**, known by name Aatreyaz has a total strength of 66 students.

Class Advisors: Dr. Arun Varghese Prof. Nimmy George

Class Representatives: Aswin K R Soorya Lilly Dennis

An enthusiastic batch of students with a lot of freshness and energy.



Third years at Goa

The pupils are actively part of various organisations inside and outside the campus and are constantly contributing to the college.

The current class topper is Elsa Maria Xavier and her academic excellence was recognized in Alumni Meet 2022.

The batch has received a **Placement Orientation** session on 15th&16th of Dec 2021 from team CGPC.

On 22nd June'22, the students went for a six-day IV to Goa and Chikmagalur.

B-TECH FOURTH YEAR

The batch of 2018-2022, known by the name Sahasraaz, has a total strength of 68 students.

Class Advisors: Prof. Shinoj Sukumaran Dr. Helen Mary M C

Class Representatives: Abhijith Harikumar Vishnu Maya V

The batch is energetic in both curricular and non-curricular activities.



Fourth years at Agra

The CGPC organised the orientation for the batch about placement preparation in the month of June'21. The batch has a delightful academic performance and R. Abhiramya, has been acknowledged during Alumni Meet 22 for her appreciable performance. Kallu S S, holds a special mention for her ed-start up 'Rever Tech IT Solutions'. On 13th Dec 2021, the batch went for a ten-day Industrial visit to Agra-Manali-Kulu-Delhi during the mid of December. The batch also has a notable placement statistic with a current hold of 80% placements.

M-TECH FIRST YEAR

Having a total strength of 9 students, the batch is academically proficient.

Class Advisors:

Prof. Premson Y

Prof. Dr. Michael George

The three day TEQIP sponsored student "Workshop on Image Processing and Computer Vision Using Labview" was organised from 20th to 22nd December 2021 for PG (M.Tech. ACIS and AECE) students.

Also, a Workshop on FPGA Demonstration was arranged on 7th&8th of April 2022 and the resource person was Mr. Vinnalyan from CoreEL Technologies.

On 1st and 8th of May 2022, a "Workshop on Machine Learning" was arranged and Mr.Ben P Babu was the resource person.

M-TECH SECOND YEAR

With a total strength of 32 students, the batch is academically promising.

Class Advisors:

Prof. Premson Y

Prof. Dr. Michael George

On 16th Dec 2021, the TEQIP sponsored student Workshop on "Coding with Python for Being Industry Ready" was organised by the Department.

On 7th&8th of April 2022, the batch received a "Workshop on FPGA Boards" such as KinTex.

Their current placement statistics is 60% in leading electro-tech companies.

BATCH 2017-21

With a total strength of 68 students, the batch was magnificent in their academic and non-academic activities.

The students received a placement statistics of 65% and are doing well in Indian and International companies.

On 16th July'21, the Department arranged their farewell meet.

In the Alumni meet' 22, Devika Krishnan was recognised as the Proficiency holder and Sadiya O S as the Best Outgoing student.



Batch 2021

Placement Statistics

Career Guidance and Placement Statistics(CGPC) of the college ensure sufficient internships and placement opportunities for students at top-tier companies. The academic year visualized a higher proportion of students making it into blue chip companies, like never before.

Batch 2017-2021

65%

Batch 2018-2022

80%

B-Tech Placment 2022























HCL



Tata Elxi





















White Rabbit







Infosys













Quest









Cognizant





Anjali S Nair Gishnu Reghu Christymo Cleetus











Melbin John Nikhitha Achu









Qburst













Exiger







DCT

Experion























Placment 2022









M-Tech Placment 2022



STUDENT ACHIEVEMENTS

PhD Awarded

Ms. Deekshitha G, defended her thesis on "Multistage Spoken Term Detection for Searching Speech Databases", in July 2021 under the supervision of Dr. Leena Mary, from A. P. J Abdul Kalam Technological University. She is currently pursuing her Post Doctoral Fellowship at Spire Lab, IISc Bangalore.



Dr. Deekshitha G

- Ms. Starlet Ben Alex, defended her thesis on "Multilevel Prosodic Features for Automatic Emotion and Speaker Recognition from Speech using Deep Learning Techniques", in Nov 2021 under the supervision of Dr. Leena Mary, from A. P. J Abdul Kalam Technological University.
- Mr. Tomson Devis, defended his thesis on "Auto-reconfigurable and Hardware-efficient Filter bank Structures for Auditory Compensation in Digital Hearing Aids", in Apr 2022 under the supervision of Dr. Manju Manuel, from A. P. J Abdul Kalam Technological University.

REVERTECH: GROWING BEYOND BOUNDARIES

- An Ed-tech startup by Kallu S S of S8 ECE

The company was incorporated on 29 December 2020 as an ed-tech company with the intention of providing quality live training and internship at a low cost.

After 6 months, the company set foot on developing software products and providing other services such as web and app development, web mining, digital marketing, machine learning to people.



Kallu S S, S8 - ECE

The milestones covered so far:

- Internship and Training Taught 2000+ students in 25 different domains.
- Workshops and Placements
 Conducted more than 150+
 workshops accomplished 100+
 placements.
- Colleges
 Signed MoU with many colleges
 inside and outside Kerala to provide
 add on courses and training. Set up
 Community groups in 64 colleges.
- Webinars
 Conducting free webinars every month on career guidance, newer technologies etc.
- Partnerships
 Partnered with more than 10 companies inside and outside India



ReverTech hosting workshop at Kochi.

STUDENT ACHIEVEMENTS

- Shaji Munavvar Sajad from S2 EC has achieved Second Prize in Satyameva Jayate, Quiz Competition conducted by NSS RIT Unit on Republic Day.
- Alwin Reju from S2 EC has achieved first Prize in crossword puzzle, conducted by SAE RIT.
- ➤ Alwin Reju from S2 EC has achieved First Prize in Cartoon Competition, conducted by NSS RIT Unit, in connection with International Girl Child Day.
- Alwin Reju from S2 EC has achieved first Prize in Article Writing Competition, conducted by NSS RIT Unit.
- Deva Nandan K V from S6 ECE has secured First Prize in ORION 2.0 Photo manipulation contest, in the month of June'21.
- Amruth P from S6 ECE has secured First Prize in Quizzeria 2k21 by Mar Sleeva College of Arts

- Amruth P from S6 ECE has secured First Prize in IEEE Day Quiz by PES Kerala Chapter, in the month of October 2021.
- Amal P Paulose from S6 ECE had secured Second Prize in Jwala Essay writing competition, conducted by NSS Cell of Mar Baselios Christian College of Engineering and Technology, in Jan'22.
- Amal P Paulose from S6 ECE has secured Second prize in a Blog Writing competition conducted by IEEE Kerala Section, on behalf of Science week, in the month of Feb '22.
- Amal P Paulose from S6 ECE has secured First prize in a Blog Writing competition conducted by Women Cell RIT on behalf of Women's day, in March '22.
- Anusree Lakshmi from S6 ECE has secured Third Prize for Collage Making Competition conducted by IEEE WIE, in the month of March 2022.

VIPINDEV ADAT: The Glint of RIT at MIT

➤ Vipindev Adat Vasudevan, RIT alumnus of batch 2010-2014 was awarded Ph.D. in Information and Communication Technologies from Universidade de Vigo in Galicia, Spain in January 2022. Currently, he is a Postdoctoral Associate at the Massachusetts Institute of Technology. In the month of March'22, he visited the Department and had a heart warming interaction with the budding engineers.



Vipindev Adat Vasudevan

PROJECTS

Amidst the challenges offered by the pandemic, students were determined to formulate technological solutions to address concerns of the hour. Recognitions that followed, further pushed students to devise and develop more for society.

Automated Driving Test for Two Wheelers

Team Members: Guide:
Melna S Monson Prof. Premson Y
Veena M
Liya Jomy

The project was presented at the Navakerala Exhibition, May 2022 organised by the Government of Kerala. It was also presented to the Motor Vehicle Department who asked the students to submit a report regarding the project.



Team member Melna S Monson explaining the project to authority at Navkerala Exhibition

Main highlights of the Project include:

- The system installs two circuits using microcontrollers. One will be installed at the main station and the other in the vehicle.
- The circuit at the main station performs RFID based candidate identification and biometric based candidate authentication.
- The test skills will be judged on parameters like path change, lane driving, forward-8, timelines, and foot position.

IoT Based Smart Irrigation System - CERD funded

Team Members: Guide:

Aparna A Dr. Upama Rajan M N Ajith Jayan Sidharth S

Ashly C Dhanu

This final year project was awarded CERD Funding of Rs. 25,000/- for implementation.

Highlights of the Project include:

- ➤Aims to optimise use of water in agricultural fields with the chosen intervention of farmers.
- ➤The water is pumped to each plant through drip irrigation. The fertilisers required for plants are also provided at certain points.
- ➤ A mobile application can be used to get the data regarding water level, pH level and the soil nutrient content. Data collected from the node is fetched into the application from the cloud and displayed to the farmer.



Team members(from left) Sidharth S, Ashly C, Ajith Jayan and Aparna A

PROJECTS

Project Aquamantis Wins Idea Grant by Kerala Startup Mission

Team Astras ,a five member student group including two ECE students - G Saradha (S6 ECE) and Avena Sara Saii (S4 ECE) from RIT have been awarded 1 lakh rupees as a part of Idea Grant for their project.

Aquamantis is an animal husbandry related project. The Govt. of Kerala has introduced the Idea Grant scheme to provide financial assistance to startups and entrepreneurs to help them convert their innovative ideas into full-fledged ventures.

The idea of the project is an animal feed production technique. Team Astras are currently in their research stage where they are in constant contact with

different veterinary hospitals professors to get accurate information about the dietary needs of different animals.



Team Astras(from left) Vaisakh U S, Ansel Sebastian, Nithin M S, Avena Sara, G Saradha and Nandu Krishnan

STeM Wins \$4988 from IEEE HAC/SIGHT Projects'21

Sanitisation-Temperature-Mask **Detection System**

STeM (Sanitisation-Temperature-Mask Detection System) is a project designed by IEEE SB RIT which has been approved by IEEE HAC/SIGHT Projects 2021 and has been funded US \$4,988.

This project enables a system automatically verify that everyone wears a mask properly. It also records and analyses their temperature and checks for any inconsistencies, while ensuring that they are sanitised before entering the premises with STeM. This system can be implemented at various locations such as schools, colleges, offices, etc where human public interaction would be high.

project is under the direct leadership of IEEE students Abhijith Benny(S6 ECE), Sidharth S(S8 ECE), Naveen (S6 ECE) & Saradha G(S6 ECE).

The project was presented at the Navakerala Exhibition 2022 organized by the Government of Kerala.



THE PROJECT AT NAVKERALA EXHIBITION 2022

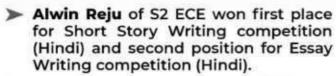
KELI Achievements

Biennial art fest of college, KELI'22 was conducted on 22nd-24th May 2022.

G Saradha of S6 ECE bagged accolades in:

- English Elocution competition (First)
- Hindi Recitation competition (Second)
- Step 'n Synchro (Second)
- Group Dance (First)
- Solo Dance (Third)
- Star of RIT (Second)

taking home the highest individual honour of "Kalathilakam".





- Akash K of S4 ECE secured third position in Debate competition (Malayalam) and first position for Short Film competition.
- Aromal Sajeev of S4 ECE secured first place for Poem Recitation competition (Hindi).
- Varun Shaji, Smera Tharakan, Rohith Mathew Saji, Minta Merin Jacob, Aleena Alex, Aman Akthar P A and Midhun M Kurian of S4 ECE bagged first position for Short Film competition.
- Annu Mary Roy of S4 ECE secured third position in Poem Recitation competition (English) and first position for Short Film competition.
- Karthika M Nambiar of S4 ECE secured second position in Light Music and first position for Short Film competition.
- Irene Ann Zachariah of S8 ECE bagged third place for Keys.
- Sidhi V of S6 ECE bagged second place for Nadanpatt.
- Anagha Menon of S6 ECE won second prize for Western Percussion and Western Music Solo.



- Unnimaya S, Navya Thomas, Hridya Lal D, Anna Mariya Benny and Abia S Tharakan of S4 ECE bagged third position in Margamkali, and Elsa Maria Xavier of S6 ECE bagged second position for Margamkali.
- Hanna Ann Joseph, Mehrunnissa and Rasmiya V S of S6 ECE secured first position for Oppana.
- Anusree Lakshmi, Jishnu R and G Saradha of S6 ECE secured first place for Group Dance.
- Vishnu Maya V of S8 ECE secured first position for Step 'n Synchro, first position for Light Music and first position for Folk Dance.
- Parvathi Harikumar of S8 ECE bagged first place for Recitation competition (Hindi) and Fashion Show.
- Megha Geo of S8 ECE secured first position for Step 'n Synchro.
- Liya Ann Thomas of S8 ECE secured third position in Jam - Malayalam.
- Teo Thomas Joby, Jishnu R and Akash C R of S6 ECE bagged third prize for Mime.
- Aswathy G of S6 ECE won second for Thiruvathirakali and second for Folk Dance.
- Amal Shams K V of S6 ECE won second prize for JAM- Malayalam and third prize for English Short Story Writing.
- Jibin Joji of S6 ECE won third prize for Mock Interview.

COLLEGE CLUB REPRESENTATIVES FROM ECE DEPARTMENT







Music Club











COLLEGE CLUB REPRESENTATIVES FROM ECE DEPARTMENT





Revisiting Our History...

Rajiv Gandhi Institute of Technology (RIT), Kottayam is one of the nine Government Engineering Colleges fully owned and run by the Government of Kerala. It is worth mentioning the following milestones in the history of RIT relevant to the Electronics discipline:

- 1991 Commencement of B. Tech in Electronics and Communication Engineering
- 2004 Completion of Electronics block
- 2007 Accreditation by NBA
- 2011 Commencement of M. Tech in ACIS
- 2013 Commencement of M. Tech in AECE
- 2016 Accreditation by NBA
- 2019 Accreditation by NBA



Electronics Block, 2004

The Department offers 4 years bachelors degree program [B.Tech] in Electronics and Communication Engineering, and 2 years Masters degree program [M.Tech] in two specializations and is affiliated to A P J Abdul Kalam Technological University.

Courses Offered

- B.Tech in Electronics and Communication Engineering (60)
- M.Tech in ACIS (18)
- M.Tech in AECE (18)
- · Ph.D

I am privileged to be known as an RIT ECEian and it was indeed the best part of my life, so far. Being under the guidance of such a wonderful faculty and surrounded by the warmth of my peers with a tint of green around... I really enjoyed my campus life. The place helped me discover my passion towards electronics and develop more as a person.

-Godwin K Stephen (Alumnus-2021) Engineer, Infineon Technologies



REVISITING THE MOMENTS



Department Library



First years with Squid Game Cup.



1st year during Freshers day procession



Students at Digital Lab



Second year during Freshers Cup' 22



Students Celebrating Holl' 22



Students during Kell' 22



56 students during their IV



School students at prominence' 22



S8 Students nurturing tomato plants for final year project.



58 students at Manalli, during their IV



Challengers' 22