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ELECTRICAL AND ELECTRONICS ENGINEERING VISION

To become a front-runner in bringing out globally competent electrical and electronics engineers, innovators, researchers, and entrepreneurs and thereby contribute value to the knowledge-based economy and society.

MISSION

- ☐ To offer good quality Under-Graduate, Post-Graduate and Doctoral programmes in electrical and electronics engineering.
- ☐ To provide state-of-the-art resources that contribute to achieve excellence in teaching-learning, research and development activities.
- ☐ To bridge the gap between industry and academia by framing curricula and syllabi based on industrial and societal needs.
- ☐ To provide suitable forums to enhance the creative talents of students and faculty members.
- ☐ To enable students to develop skills to solve complex technological problems of current times and also provide a framework for promoting collaborative and multidisciplinary activities.
- ☐ To inculcate moral and ethical values among the faculty and students.

PROGRAMME EDUCATIONAL OBJECTIVES

The Electrical and Electronics Engineering programme of Sona College of Technology will prepare its graduates to,

- I. apply their knowledge and skills to provide solutions to electrical and electronics engineering problems in industry and governmental organizations or to enhance student learning in educational institutions.
- II. work as a team with a sense of ethics and professionalism and communicate effectively to manage cross-cultural and multidisciplinary teams.
- III. update their knowledge continuously through lifelong learning that contributes to personal and organizational growth.

PROGRAMME SPECIFIC OUTCOMES

On completion of the B.E. (Electrical and Electronics Engineering) degree the graduates will be able to,

1. Apply the fundamental knowledge of mathematics, science, electrical and electronics engineering to analyse and solve the complex problems in electrical, electronics and allied interdisciplinary areas.
2. Design, develop and implement electrical and electronics and allied interdisciplinary projects to meet the demands of industry and to provide solutions to the current real time problems.

PROGRAMME OUTCOMES

- a) **Engineering knowledge:** Apply knowledge of Mathematics, Science and Engineering to solve the complex problems in Electrical and Electronics Engineering.
- b) **Problem analysis:** Identify, formulate, design, analyze and implement an electrical and electronics system, component, or process to meet desired needs.
- c) **Design / development of solutions:** Design system components that meet economic, environmental, social, political, ethical, health and safety, and sustainability requirements.
- d) **Conduct investigations of complex problems:** Conduct investigations of complex engineering problems including design of

experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

- e) **Modern tool usage:** Construct, select and apply appropriate techniques, resources, and modern simulation tools to solve complex electrical and electronics circuits.
- f) **The engineer and society:** Apply contextual knowledge to assess social, health, safety and cultural issues and endure the consequent responsibilities relevant to professional engineering practice.
- g) **Environment and sustainability:** Utilize core engineering knowledge in a global, economic, environmental, and societal context for sustainable development.
- h) **Ethics:** Solve professional, legal and ethical issues pertaining to core engineering and its related fields.
- i) **Individual and team work:** Function effectively as a team member or a leader to accomplish a common goal in a multi-disciplinary team.
- j) **Communication:** Communicate effectively in both verbal and written forms.
- k) **Project management and finance:** Apply knowledge of engineering and management principles to manage projects effectively in diverse environments as a member or leader of a team.
- l) **Life-long learning:** Engage in independent and lifelong learning for continued professional development.

News on Electrical Engineering

5G Technology

5G signifies a generational transformation that will profoundly impact businesses and consumers across the globe. It promises a revolutionary untethered experience with much faster data, shorter network response times (lower latency), instant access anywhere and everywhere, and the capacity for billions of devices. We're not just talking about being able to download a video to your phone faster. Unlike 3G and 4G, 5G looks to expand far beyond our mobile devices and into applications that touch

all facets of our lives. From enabling the Industrial Internet of Things to ensuring the safety of autonomous vehicles, 5G will change our lives in ways that are hard to even imagine.



The 3GPP standardization body is furiously marching toward defining 5G, but the real work is just beginning. Companies specializing in semiconductor, network infrastructure, cloud, software, manufacturing, and test technologies must now design, develop, test, and deliver solutions that take advantage of these new wireless capabilities. This is no easy task.

5G features new technologies such as Massive MIMO and mmWave. Both technologies use multiple antennas and beam forming, which is a huge departure from current and previous wireless architectures. 5G also includes new wireless control mechanisms that split the control and data to facilitate the concept of network slicing, which scales the level of service to an individual user device.


Department Events

SONA COLLEGE OF TECHNOLOGY
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Department of Electrical & Electronics Engineering

An Interactive Webinar on
"Robot Systems for E-Mobility"
June 27th, 2020 | 11:00 am

Speaker



Mr. Rajappan Rajkumar
Founder and Director - Hilmil Solutions, Bengaluru.

Convenor: **Dr. S. Padma**, Professor & Head - EEE
Coordinators: **Dr. R. Shivakumar**, Professor - EEE, **Dr. A. Jagadeeshwaran**, Professor - EEE, **Dr. K. Krishnamoorthi**, Associate Professor - EEE

For further details, Contact: **Dr. K.S. Yamuna**, Asst. Professor - EEE, 98407 13205, **Dr. V. Shanmugasundaram**, Asst. Professor - EEE, 98946 40610

Account Details:
Account No.: 3087779389
Bank Name: Central Bank of India
IFSC Code: CBIN0283306

E-Certificate will be provided for the participants
Course Fee: Rs. 118 /- (Including GST)
Registration Link - <https://bit.ly/2Vmr1QH>

SCAN THE QR CODE FOR ONLINE REGISTRATION

An Interactive webinar on "Robot systems for E-Mobility" was conducted by Department of Electrical and Electronics Engineering on 27th July 2020. The Resource person was Mr. Rajappan Rajkumar Founder and Director HILMIL Solutions Bengaluru.

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Department of Electrical and Electronics Engineering

Convenor: **Dr. S. Padma, HOD/EEE**
Coordinators: **Dr. R. Arulmozhiyal**, Professor/EEE, **Mr. M. Murali**, Assistant Professor/EEE

Registration Link: <https://bit.ly/31eY4uJ>

Webinar on Research Indicator and Impact Publication
Date & Time: 01-07-2020 (Wednesday) 2:30 to 4:00 pm
Webcast On: Microsoft Teams

Further information will be shared through registered mail.

RESOURCE PERSON
Dr. R. Balasubramani
Department of Library and Information Science, Bharathidasan University, Trichy.

Registration Fee: Rs. 118 (100 + 18 GST)
Bank Account Details: A/C No.: 500101011827258, Sona College of Technology, City Union Bank, Salem, IFSC code: CIUB0000042

Payment Options: Bank Transfer, Internet Banking, G-Pay, PayTM

E-certificates will be provided

Department of EEE conducted Webinar on "Research Indicator and Impact Publications" on 1st July 2020. The resource person was Dr. R. Balasubramani, Department of Library and Information Science, Bharathiyar University, Trichy.

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Department of Electrical & Electronics Engineering

A Webinar on **Electrical Engineering in Oil and Gas Industry**
Design & Challenges

3rd July, 2020 4:00 pm

Registration Fee Rs. 118/- (Including of 18% GST)

Payment Details: Account No.: 500101011827258, Bank Name: City Union Bank, IFSC Code: CIUB0000042

Convenor: **Dr. S. Padma**, Professor & Head / EEE
Coordinators: **Dr. M. Senthil Kumar**, Professor/EEE, **Dr. B. Karthik**, Asst. Prof/EEE, **Mr. D. Kesavan**, Asst. Prof/EEE, **Ms. T. Ilakkia**, Asst. Prof/EEE, **Dr. T. J. Deepika**, Asst. Prof/EEE

Er. S. Hemachandran, Electrical Engineer, Central Engineering Division, ADNOC Offshore, Abudhabi National Oil Company, UAE.

For Further details, Contact: +91 77081 38875, karthik@sonatech.ac.in

E-Certificate will be provided for the participants
Registration Link: <http://shorturl.at/jnqQS>

Department of EEE conducted Webinar on "Electrical Engineering in oil and Gas Industry" on 3rd July

2020. The resource person was Dr. S. Hemachandran, Electrical Engineer Abudhabi.

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Department of Electrical & Electronics Engineering

A Three Day Online Course on **Internet of Things using PYTHON**

Course Content: Fundamentals of IoT | Basics of Python | Nodemcu | Arduino | Raspberry Pi

Date: 8th to 10th July, 2020 | 11.15 am – 12.45 pm

Registration Fee Rs. 500/- (Including of 18% GST)

Resource Persons

Day 01: Fundamentals of IoT
Dr. M. Gopila, Asst. Prof. (Sr. G) / EEE, Sona College of Technology

Day 02: Basics of Python
Dr. T.J. Deepika, Asst. Professor / EEE, Sona College of Technology

Day 03: Nodemcu, Arduino, Raspberry Pi
Prof. Raghu R, Asst. Prof / E & I, National Engineering college

Convenor: **Dr. S. Padma**, Professor & Head / EEE
Coordinators: **Dr. M. Gopila**, Asst. Prof. (Sr. G) / EEE, **Ms. T. Ilakkia**, Asst. Prof./EEE, **Dr. T. J. Deepika**, Asst. Prof./EEE

Payment Details: Account No.: 500101011827258, Bank Name: City Union Bank, IFSC Code: CIUB0000042

Registration Link: <https://forms.gle/WJaFr5cQJ8JnRALT8>

A Three days online course was conducted by Department of EEE on "Internet of Things using Python" from 8th to 10th July 2020.

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Department of Electrical & Electronics Engineering

A Webinar on **Social Media: The New Hunting Ground for Freshers**

Registration Fee Rs. 250/- (Including of 18% GST)

11th July, 2020 | 3:00 – 5:00 pm

- Providing a new perspective of future job markets
- Career Mapping
- Growing online presence & Networking

Swathy Sanjeevi, Tricog Health India Pvt. Ltd, Bengaluru

webcast on Microsoft Teams

Payment Details: Account No.: 500101011827258, Bank Name: City Union Bank, IFSC Code: CIUB0000042

Registration link: <https://forms.gle/zpFUQFTkbgRd2iVA8>

E-Certificate will be provided for the participants

Convenor: **Dr. S. Padma**, Professor & Head / EEE
Coordinators: **Dr. D. Prasad**, **Prof. S. Purushotham**, **Dr. K. Krishnamoorthi**, **Dr. M. Gopila**

Department of EEE conducted A webinar on Social Media: The New Hunting Ground for Freshers by Swathy Sanjeevi, Tricog Health India Pvt. Ltd, Bengaluru.

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Activity based Webinar on
"ENTRY TO DIGITAL LIFE"

Date : 12th July, 2020 | 11.00 am – 12.30 pm

Resource person

A. Pradeepkumar, B.E., MBA.
Learning and Development Analyst,
Digital Skills Transformer, Corporate Trainer,
Bengaluru.

Who can attend
School students,
College faculties and students

Registration Fee Rs.200/-
(Including of 18% GST)

Topics to be covered

- Study on Digital Readiness
- Top 5 Impacting Trends
- Industry Insights- Learning from others in the Digital Age
- How to create Digital Mindset and Transform yourself
- Basic Tools for Digital aids

Payment Details
Account No. : 500101011827258
Bank Name : City Union Bank
IFSC Code : CIUB0000042
Bank holder Name :
SONA COLLEGE OF TECHNOLOGY,
SALEM.

Convenor
Dr.S.Padma, Professor & Head / EEE

Coordinators
Dr.R.Shivakumar
Dr.A.Jagadeeshwaran
Dr.K.Krishnamoorthi
Dr.K.S.Yamuna
Dr.V.Shanmugasundaram

Registration Link : <http://shorturl.at/vMRX4>

For Contact
Dr.V.Shanmugasundaram (98946 40610) | shanmugasundaram@sonatech.ac.in
Dr.K.S.Yamuna (98407 13205) | yamunaks@sonatech.ac.in

Department of EEE Conducted Activity based Webinar on "Entry to Digital Life" by A. Pradeepkumar, Learning and Development Analyst, Bengaluru on 12th July 2020.

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Department of Electrical & Electronics Engineering

A Two Day Webinar on
Demystifying Electric Vehicle Research & Career Opportunities

Webcast on **13th & 14th July, 2020**
2:15pm – 3:30pm

Speaker
Mr. S. Siva
Independent Researcher

Highlights

- Need for EV
- EV structure
- Battery-Types, operating conditions
- Battery connections
- Battery Real-time problems
- Research and Development in EV Battery
- Carrier development in EV

Registration Fee Rs.250/-
(Including of 18% GST)

Payment Details
Account No. : 500101011827258
Bank Name : City Union Bank
Beneficiary : Sona College of Technology
IFSC Code : CIUB0000042

Convenor
Dr.S.Padma, Professor & Head / EEE

Coordinators
Ms. T. Ilakkia, Asst. Prof./EEE
Mr. D. Kesavan, Asst. Prof./EEE
Dr. T. J. Deepika, Asst. Prof./EEE
Mr. M. Murali, Asst. Prof./EEE

Registration link : <https://qrco.de/bbbT3p>

For further details, Contact
Ms. T. Ilakkia
+91 96003 51008
ilakkia@sonatech.ac.in

E-Certificate will be provided for the participants

Department of EEE Conducted a Two Day webinar on "Demystifying Electric Vehicle Research & Career Opportunities" on 13th and 14th July 2020.

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Department of Electrical and Electronics Engineering

Workshop on
"MOTOR DESIGN FOR ELECTRIC VEHICLE - MagNet SOFTWARE"

13th to 17th July 2020 | 10.00 am to 11.30 am

Course Outline

- Finite Element Analysis
- About MagNet software
- Model building in MagNet software
- Electromagnet Actuator design-Static solver
- Linear Synchronous motor design-Parameterisation.
- Brushless motor - 2D Transient with Motion
- Present Electric Vehicles in India
- Career opportunities in EV

Registration fee
Rs.1000/- (inclusive of GST)

E-certificate will be provided for all registered participants.

Speakers
Dr. S.Vijay Shankar, ASP/EEE
Mr.V.M.Periyasamy, AP/EEE
Ms.M. Porkodi, ASP/EEE
Dr. G. Suresh, AP/EEE

Registration Link : <http://shorturl.at/CDLV6>

Convenor
Dr.S.Padma, HOD/EEE

Contact details:
Dr. S. Vijay Shankar, ASP/EEE, 99940 52255
Dr.G.Suresh, AP/EEE, 98945 51422

Department of EEE conducted Workshop on Motor "Design for Electric Vehicle – MagNet Software" from 13th to 17th July 2020.

Department of ELECTRICAL & ELECTRONICS ENGG.
In association with
The Institution of Engineers (India) IE(I)

One Day Workshop on
SMART TECHNIQUES IN MANUFACTURING

15th July 2020
10 am to 11.30 am | 2.30 to 4.00 pm

Resource Persons
Mr. R. Vignesh
Technical Head
AGIT, Chennai
Mr. Karthikeyan Shanmugam
Director, ARKtech
Coimbatore

Topics covered
Understanding Industry 3.0 for Industry 4.0
Code your machine in your style
Smart Manufacturing

Registration Fee
200/- Inclusive GST

Registration link
<https://shorturl.at/aLuD>

Program link & further information will be sent through registered mail.
E-Certificate will be provided

Convenor
Dr.S. PADMA
Professor & Head/EEE

Co-ordinators
Dr. C.B. Venkatramanan
Dr. B. Karthik
Mr. S. Arunkumar

Further Details Contact
Dr.C.B.Venkatramanan, ASP/EEE
venkatramanan@sonatech.ac.in
+91 98424 86753

Department of EEE Conducted one day workshop on Smart Techniques in Manufacturing on 15th July 2020. The resource Persons were Mr. R. Vignesh and Mr. Karthikeyan Shanmugam of Chennai.

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Salem - 636 005, TN

Online Coaching in Electrical Engineering for COMPETITIVE EXAMS

18.07.2020 to 09.08.2020 (Saturdays and Sundays Only)
10:00 AM to 12:00 Noon (2 Hrs / Day) - 16 Hours

Coaching for the following:
- GATE
- PSU (BHEL, PGCIL, HAL, IOC, NTPC, BSNL)
- TANCET
- TRB, TNEB & Other Competitive Exams

Course Instructor
Dr. M. Senthil Kumar,
Professor/EEE, SCT

Registration Fee **Rs. 500/-**
(Inclusive of GST)

Account Details:
A/C No: 500101011827258
Beneficiary: SONA COLLEGE OF TECHNOLOGY
Bank: City Union Bank, Main Branch
IFSC Code: CIUB0000042

Convenor
Dr. S. Padma, Professor & Head / EEE

Coordinators
Dr. M. Senthil Kumar, Professor/EEE
Mr. S. Madhubalan, AP/EEE
Dr. T. J. Deepika, AP/EEE

For Details, Contact:
+91 79041 31033
senthilkumarm@sonatech.ac.in

Registration URL: <http://shorturl.at/oHWX3>

Department of Electrical and Electronics Engineering conducted online coaching in Electrical Engineering for Competitive Exams series 1 Electric Circuits from 18th July 2020 to 09th July 2020 from 10Am to 12 Noon. Dr. M. Senthil Kumar, Professor/EEE, SCT was the course Instructor.

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Department of Electrical & Electronics Engineering

A Webinar on THERMOELECTRIC POWER GENERATION USING WASTE HEAT

25th July 2020 | 11.15 am to 12.45 pm

Dr. B. Bijukumar,
Assistant Engineer,
Kerala State Electricity Board

Account Holder Name:
A/C No : 500101011827258
Beneficiary : Sona College of Technology.
Bank Name: CITY UNION BANK
Branch: SALEM MAIN
IFSC code: CIUB0000042

Convenor
Dr. S. Padma
Professor Head / EEE

Coordinator
Mr. D. Kesavan, Asst. Prof/EEE
Ms. T. Ilakkia, Asst. Prof/EEE
Dr. T. J. Deepika, Asst. Prof/EEE
Mr. S. Arunkumar, Asst. Prof/EEE

Registration Fee **Rs. 150/-**
(Inclusive of GST)

E-certificate will be provided for active participants
Registration Link: <https://qrco.de/bbbqnl>

Further Contact: **Mr. D. Kesavan,** +91 90953 92195

Department of EEE conducted a Webinar on "Thermoelectric Power Generation using Waste Heat" on 25th July 2020 by Dr. B. Bijukumar, Assistant Engineer, Kerala State Electricity Board.

Research and Development Activities

Sona Speed designed, manufactured and delivered high performance brush less DC motor for advanced towed artillery gun system rocker mechanism to Bharat Forge Limited, Pune.



Sona SPEED, Department of Electrical Engineering, Successfully developed, tested and delivered the motors on 8th September 2020.



Sona SPEED, Department of Electrical Engineering, Successfully developed, tested and delivered the sixth batch of wheels on 14th September 2020.

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Department of Electrical & Electronics Engineering

Cordially invites you to the
Inauguration of Department Association

EDISON
(Electrical Department in Sona)
On 20 August, 2020 at 9.30 am

Webcast on
zoom

followed by
A Guest Lecture on
"What next : Future Engineering options"
By our alumna

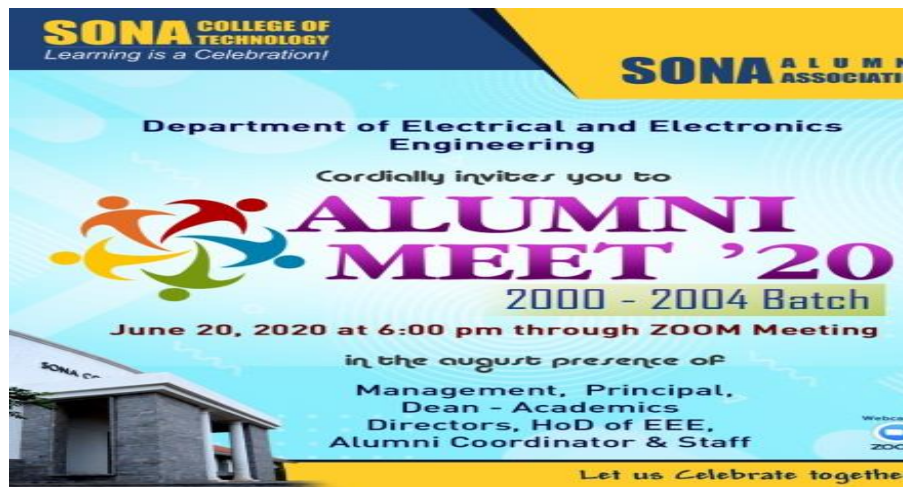
Ms. Sindhura Radhakrishnan
(2002 Batch)

Mr. C. Valliappa
Chairman, Sona Group of Institutions
presides over the function
in the august presence of

Mr. Chocko Valliappa **Mr. Thyagu Valliappa**
Vice Chairman, Sona Group of Institutions Vice Chairman, Sona Group of Institutions

Dr. S.R.R. Senthil Kumar **Dr. S. Padma**
Principal, SCT HoD / EEE

Department of EEE as part of EDISON association activity organises an online guest lecture on "What next: Future Engineering options" by our Alumna Ms. Sindhura Radhakrishnan (2002 Batch) on 20th August 2020.



Department of EEE in association with SONA Alumni Association conducted Alumni Meet '20 on June 20, 2020 at 6PM through online Mode.

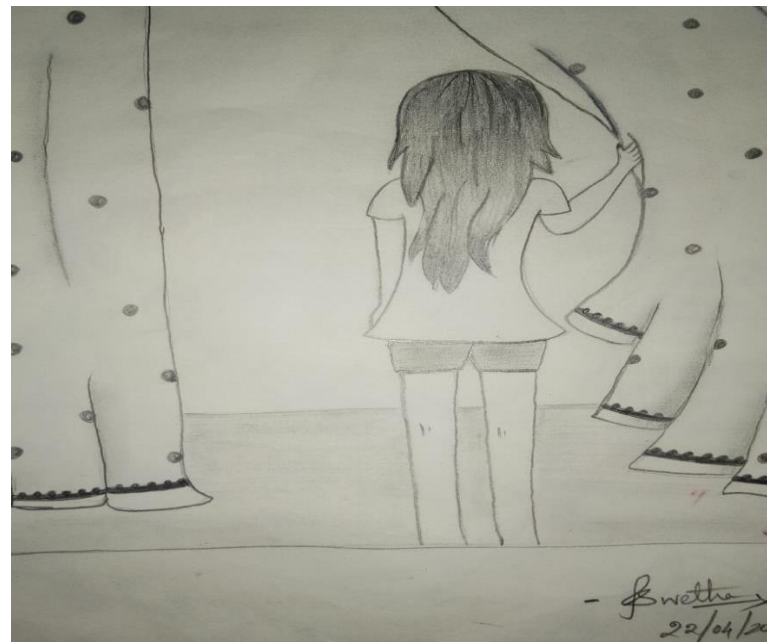


Imagecon India Pvt Ltd., organized a contest for Emerging Engineers from 7th of September to 12th September, 2020 and awarded top scorer in the college as "Eminent Engineer of 2020". Mr. Bharath. S of final year EEE received the title "Eminent Engineer of 2020".



Santhosh D of Second year EEE successfully completed as 1% Topper in Electrical Machines I with a score of 100% out of 317 candidates.

Extracurricular / Co-curricular activities



S. Swetha II year EEE



S. Sriram, III year EEE





S. Srimathi, III year EEE



Vignesh A, III year EEE

Editorial Board

1.	Dr. S. Padma, HOD/EEE	Convener
2.	Dr. R. Shiva Kumar, Professor / EEE	Overall Coordinator
3.	Dr. K. Krishnamoorthi, Associate Professor/EEE	Co-coordinators
4.	Prof. T. Illakiya, Assistant Professor / EEE	
5.	Dr. K. S. Yamuna, Assistant Professor /EEE	
6.	Dr. M. Gopila, Assistant Professor /EEE	Members
7.	Dr. G. Karthikeyan, Associate Professor / EEE	
8.	Dr. C. Santhana Lakshmi, Assistant Professor/EEE	
9.	Dr. M. Murali, Assistant Professor / EEE	
10.	Dr. V. Shanmuga Sundaram, Assistant Professor / EEE	
11.	Dr. G. Suresh, Assistant Professor /EEE	
12.	Prof. M. Porkodi, Associate Professor / EEE	
13.	Prof. D. Kesavan, Assistant Professor / EEE	