IEEE Kerala Section

2016

ANNUAL REPORT

SECRETARY, IEEE KERALA SECTION, 2016

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PART A - SECTION SUMMARY

A.1 Executive Summary

Section Executive Committee Member List

Chair	Dr. K.R.Suresh Nair
Vice Chair	Dr. Sameer S M
Secretary	Ms. Sarada Jayakrishnan
Treasurer	Mr. Jithin Krishnan
Immediate Past Chair	Mr. Unni Sankar
Immediate Past Secretary	Mr. Sabarinath Pillai
Chair, Malabar Subsection	Dr. Lilly Kutty Jacob
Vice Chair, Malabar Subsection	Dr. Gopakumar A
Secretary, Malabar subsection	Mr. Rijil Ramchand
Chair, Kochi Subsection	Ms. Mini Ulanat
Vice Chair, Kochi Subsection	Mr. Shahim Baker
Secretary, Kochi Subsection	Mr. Vijay S Paul
Chair, YP Affinity Group	Mr. Shahim Baker
Vice Chair, YP Affinity Group	Mr. Bibin Parukoor Thomas
Secretary YP Affinity Group	Ms. Preethy V Warrier
Chair, WIE Affinity Group	Ms. Sunitha Beevi
Vice Chair, WIE Affinity Group	Ms. Meenakshi
Secretary, WIE Affinity Group	Ms. Deepthi Das
Chair, Consultant's Network AG	Mr. Amarnath Raja
Chair, Life Member AG	Mr. N T Nair
Chair, CS Chapter	Mr. Padmakumar G
Vice Chair, CS Chapter	Dr. G Santhosh
Secretary, CS Chapter	Mr. Gilesh M P
Chair, IE, IA & PEL Chapter	Mr. A K Unnikrishnan
Vice Chair, IE, IA & PEL Chapter	Dr. Jaison Mathew
Secretary, IE, IA & PEL Chapter	Mr. Srikanth Vasudevan
Chair, Comsoc Chapter	Mr. Senthil Kumar
Secretary, Comsoc Chapter	Mr. Sreevas Sahasranamam
Chair, PES Chapter	Mr. Hareendralal AG
Vice Chair, PES Chapter	Mr. Suhair A K
Secretary, PES Chapter	Mr. Biju K
Chair, SSIT Chapter	Mr. Satish Babu
Secretary, SSIT Chapter	Mr Ranjit R Nair
Chair, APS Chapter	Dr. C K Anandan
Vice Chair, APS Chapter	Dr. Chinmoy Saha
Secretary, APS Chapter	Dr. P Abdulla
Chair, SPS Chapter	Dr. C K Raveendranathan

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Chair, RAS Chapter	Mr. Rejin Narayanan
Vice Chair, RAS Chapter	Ms. Shyba S
Secretary, RAS Chapter	Mr. Chandykunju Alex
Chair, EMBS Chapter	Mr. Korothu P Varghese
Vice Chair, EMBS Chapter	Mr. Sasi P
Secretary, EMBS Chapter	Mr. Suresh K S
Chair, Nomination Committee	Mr. Unni Sankar
Chair, Membership Development	Mr. Ranjit R Nair
Chair, Inter Society Relations	Mr. J Muraleemohan Lal
Chair, Humanitarian Tech. Activities	Mr. Jayakrishnan M C
Chair, Public Relations	Mr. Bibin Parukoor Thomas
Chair, Professional Activities	Mr. K G Sateesh Kumar
Chair, PIE	Mr. Sandeep V
Chair, Publications	Mr. K Gopalan
Chair, Industry Coordination	Mr. Varghese Cherian
Chair, SDLP & Mentor Network	Mr. Anil Kumar C V
Chair, Conference Activities	Mr. Sasi P M
Convenor, Conference Activities	Dr. Bijuna Kunju
Chair, Awards & Recognition	Mr. Amarnath Raja
Convenor, Awards & Recognition	Mr. Nandakumar R
Chair, Educational Activities	Prof. K P Mohandas
Co-chair, Educational Activities	Prof. Muhammed Kasim
Section ECC	Mr. Vijay S Paul
Section Webmaster	Mr. Shahul Hameed
Abroad Education: Networking	Mr. Ajin Baby
Advisor, YP Affinity Group	Mr. V K Damodaran
Advisor, Student Activities	Mr. S Gopakumar
Chair, Student Activities	Mr. Sabarinath G Pillai
V-SAC, Travancore Hub	Mr. Shanu Nizar
V-SAC, Kochi Hub	Ms. Ansiya Eshack
V-SAC, Malabar Hub	Mr. Vinod P
Student Representative	Mr. Balagopal U
SDLP Co-ordinator	Mr.Sabarinath
Chair, PIE	Mr. Philip John
Secretary, PIE	Mr. Shahim Baker
Chair, SIGHT	Mr. Jayakrishnan M C
Member At Large	Dr. D S Rane
Member At Large	Mr. Sateesh Kumar K G
Member At Large	Mr. S Gopakumar
Member At Large	Mr. N T Nair
Member At Large	Prof. Gomathy K Muraleedharan
Member At Large	Mr. G.Vijaya Raghavan
Member At Large	Mr. J Muraleemohan Lal
Member At Large	Mr. N.A.P. Thampy
Member At Large	Mr. Srinivasan R

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Member At Large	Mr. E Rajakumar
Member At Large	Mr. Amarnath Raja
Member At Large	Mr. Satish Babu
Member At Large	Mr. Sasi P M
Member At Large	Mr. Unni Sankar

Section Highlights

- **Maximising the benefits of IEEE to all the stakeholders:**
  A whooping, around 1080 events in one year: almost 3 events per day within the Section.

- **ISTAS 2016**
  - Flagship Conference of IEEE SSIT
  - First time hosted in a developing economy and first of it's kind in Kerala
  - Held at Udaya Samudra , Trivandrum from Oct 20-22, 2016
  - Inaugurated by Dr. T M Thomas Isaac, Finance Minister of Kerala and Keynote address by Dr.Michael Lightner (Past IEEE President)
  - 200 Delegates from 9 countries participated in CEW and Technical tracks on 21st and 22nd Oct.
  - 23 papers presented in four tracks

- **IEEE Job fair**
  - The **first ever recruitment drive** by IEEE Kerala Section.
  - 13th & 14th February '16, at Mar Athanasius College of Engineering, Kothamangalam.
  - **74 students from the 214 attendees received offer letters.**
  - 12 companies, with diverse domains, visited to interact and recruit job seekers.
  - 180 Volunteers from Kerala Section actively volunteered for the event.
  - Received **Darrel Chong Student Activity Award** (Silver Category)
  - 33% of Participants Received Placement offers.

- **IEEE Day Torch Relay**
  - IEEE Kerala Section celebrated IEEE Day this year with a global debut by conducting a **State(Section) Wide Torch Relay** starting from the northernmost district, Kasargod and ending at the southern district, Trivandrum.
  - In eight days (27 Sep - 4 Oct), the relay covered more than 700 kilometers by spreading light across the state through 14 engineering colleges and involving more than 2000+ student members

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- **Shastra Vismaya**
  - A unique initiative by IEEE Kerala Section and the Dept. of Social Welfare, Govt. of Kerala for Abused Children staying in Government Shelter Homes, to Inculcate interest towards Science and its applications.
  - Continuing from last year two sessions were held - one at Adimali and other at Trivandrum
  - IEEE Kerala Section working along with WIE, SIGHT, Young Professionals. LMAG members also joined ahnds this year towards this unique initiative.

- **International Year of Light -**

  - **The International Year of Light[IYL 2015]** and light based technologies, declared by UN
    - To promote light technologies for improved quality of life in developed and developing world

    In Kerala, spearheaded by Kerala Shastra Sahitya Parishad (KSSP), and supported by EMC, IEEE Kerala Section took up a massive project
    - to enthuse, educate and elevate the minds of school children at UP, HS & HSS levels
    - Covering ~12,600 Schools in Kerala, reaching 1.4 Million students
    - Spanning of period of 12 months till May 2016

- **Community Engagement Workshop [CEW]** : The Community Engagement Workshop is one of the strongest contrivances that have lead to the evolution of some of the ground breaking social initiatives taken up by the Kerala IEEE section, through ideas put forth during this discussion . The platform provides an arena to contribute ideas amongst government bodies, NGO's from civil sector and the engineering circle.
  - This year, the Community Engagement Workshop of SIGHT was held at Hotel Uday Samudra, Kovalam on 20th – 22nd October, 2016 and focused on disruptive technologies, ethics and global development.

- **Section Internship Program for Student members - A new Initiative :**
  - First of its kind by the section ECC team
  - Training on Web Development, Content Writing, Graphic Design
  - Of 89 Applications 21 completed the training
  - The trained students receive opportunity to volunteer for developing the revamped IEEE Kerala Section website, organisation of International conferences like ISTAS 2016, TenSYMP 2017 etc

- IEEE Kerala working closer with Government of Kerala
  - IEEE Kerala Section now works closer with the governance of Kerala State by way of representations in Key technology

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discussion making technical committees of the Government.

- IEEE Kerala Section is represented in Governing Body of IT Mission Kerala - Dr.Suresh Nair
- IEEE Kerala Section is represented in Technical Committee of IT Mission Kerala - Mr.S Gopakumar
- IEEE Kerala section is represented in ASAP for the position Chair-syllabus revision and training committee - Mr.Jithin Krishnan
- Technical Committee of Commercial Taxes Dept, Govt. Of Kerala
    - Mr. Srinivasan to represent the Section

o MGA Positions, EAB, TAB, R10 & India Council Positions

- **Mr. N.T. Nair :** Life Senior Member of IEEE has been nominated to the IEEE Life Members Committee.
- **Prof. V K Damodaran** : Life Senior Member IEEE Kerala Section is Chair R10 Life Members Committee.
- **Er. S Gopakumar** : Student Subcommittee retention lead, India Strategy Initiative Adhoc Committee 2016
- **Mr.Satish Babu -** Member 2016 MGA Geographic Unit Operations Support Committee
- **Dr.Suresh Nair -** Member EAB Section Educational resources committee
- **Dr. Sameer S M** - Vice Chair for Educational Activities in India Council
- **Mr. Ranjit R Nair -** EAB Representative to the Member and Geographic Activities (MGA) Member Engagement and Life Cycle Committee (MELCC). Member of EAB SERC
    - IEEE SSIT YP Representative
    - Selected to IEEE Honor Society HKN (Etta Kappa Nu)

- **Mr. Bibin P Thomas -** Global IEEE Day Team Lead & Member, IEEE R10 Educational Activities Committee
- **Mr. Jithin Krishnan -** Secretary, IEEE Standards Association working group of POCD

o Important Visits to Kerala Section

- **Ms. Karen Bartleson**, 2016 IEEE President-elect, 2017 IEEE President – in Kerala Guest of Honour in the 3rd edition of International Conference on Data Science and Engineering organised by Department of Computer Science, Cochin University of Science & Technology technically co-sponsored by IEEE Kerala Section, on 23rd Aug 2016
- **Dr. Janina Mazierska**, IEEE Region 10 Past Director, and a well wisher of Kerala Section, visited Trivandrum and interacted with Kerala Section volunteers including past 5 Chairmen of Kerala

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Section(including past Five Chairmen)

- IEEE Signal Processing Society's Kerala Chapter has been awarded Certification
  - Certification will be valid for four years, so the Chapter will be certified from 1 January 2017 through 31 December 2020.
  - A certificate of merit plaque and an appreciation certificate for each 2016 Chapter Officer. Can apply for a travel support grant (up to $1,000 per Chapter) to attend one Chapter Chairs Meeting during the four year certification

Major Events (International, National)

- International Symposium on technology and Society (**IEEE ISTAS 2016**) organized by IEEE SSIT & IEEE Kerala Section on 20-22 Oct 2016..
- IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES 2016) by IEEE IAS, PES, PELS and IES on 14-17 Dec 2016.

- **Approved Technically Co-sponsored Conferences** :
  2016 International Conference on Data Mining and Advanced Computing (SAPIENCE 2016) by Sree Narayana Gurukulam College of Engg, Kolenchery from 16-18 Mar 2016

  International Conference on Communication Systems and Networks (ComNet 2016) by Mar Baselios Institute of Technology, Trivandrum from 21-23 Jul 2016

  International Conference in Information Science 2016 (ICIS 2016) by College of Engg, Cherthala from 12-13 Aug 2016

  2016 International Conference on Data Science and Engineering (ICDSE 2016) by CUSAT from 23-25 Aug 2016

  2016 International Conference on Next Generation Intelligent Systems (ICNGIS 2016) by Rajiv Gandhi Institute of technology, Kottayam from 1-3 Sept 2016

  6th International Conference on Advances in Computing & Communications (ICACC 2016) by Rajagiri School of Engg & Tech, Kochi from 6-8 Sept 2016

  International Conference on Antennas and Propagation (APSYM 2016) by CUSAT from 19-21 Dec 2016

  International Conference on Robotics and Automation for Humanitarian Applications (RAHA 2016) by Amrita University from 18-20 Dec 2016

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Distinguished Lecture Programs

The following DLPs were organized at various locations in Kerala for the benefit of members in the section

- **DLP on "Cooperative service management in Healthcare sector: Emerging Trends and Future challenges" by Prof. Pradeep Ray** - University of New South Wales, Australia –At CDAC, Trivandrum & Rajagiri School of Engineering & Technology, kochi
- **DLP on "IoT – A pervasive technology for innovation"Prof. Anura Jayasummana**, Colorado State University, US –At CUSAT & Adisankara Institute of Technology; NIT ,Calicut
- DLP talk on Solar power systems at CE Munnar
- **DLP by Prof. Hynek Hermanski , Fellow IEEE**, Julian S. Smith Professor in Electrical Engineering, The Johns Hopkins University – **Multi Stream Recognition of Speech** at C-DAC,TVM – **Information Extraction from Temporal Dynamics of Speech** at CET
- **DLP by Prof. Yoram Bresler, Fellow IEEE, University of Illinios, Urbana** - Champaign - **The Origin of Compressive Sensing** at ECE Department, CET
- **DLP by Professor Pradeep Kumar Ray, Director, WHO Collaborating Centre on eHealth Asia-Pacific ubiquitous Healthcare research Centre (APuHC),** UNSW Business School UNSW Australia (University of New South Wales), Australia at C-DAC, Trivandrum on **Assistive Technologies in Health Care**

Major Chapter Activities

- **PES Quiz**
  - The Power and Energy Society Chapter organized a Power Quizzes for pre-university students and also for 1st year engineering students.

- **Power & Energy Research Group**
  - –Flagship program of PES in 2016 is a Power & Energy society chapter is a research group formation.
  - Cluster Meetings held at Trivandrum, Kollam, Kochi & Calicut
  - 25 Problems Identified & Taken for Further Study & Analysis by 8 Colleges
- **SSIT - Hosted the prestigious flagship conference ISTAS 2016 at Trivandrum**.
- **IEEE International Conference on Data Science and Engineering (ICDSE 2016) during 23-25 August 2016 at Cochin University**

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- The conference was inaugurated by the eminent academician Dr. E. Balagurusway. We were honoured to have Ms.Karen Bartleson, 2016 IEEE President-elect, 2017 IEEE President as Guest of Honour.
- The three day conference was to provide a discussion forum for professionals, faculty members, researchers and students in the theme area "Data Sciences". Thirty five papers were accepted for the conference out of 135 papers received with an acceptance ratio of 0.259. All papers have been reviewed by a team of experts, internationally recognized for their work in related areas. Apart from eminent speakers from academia, industry and government, had participation from Global players like Ford, IBM, Microsoft, TCS and upcoming companies like Flytxt, Myntra. Delegates from NASA, Gannon University, USA, University of Belfast UK are also presenting their work.

o Invited Lecturers
  - All society chapters organized invited lecturers at various locations in the section. Detailed reports follow.

o **RAS - IEEE RAS Meet 2016**
  - Bring together people working in Robotics & Automation.
  - In R&A, who is working on what?
  - Connect. Collaborate. Advance.
  - 40+ participants from industry & academia
  - Supported by Electronics Incubator (Maker Village), Kochi – space + 7.5K
  - $2000 grant approved for the event

o **EMBS - Workshop on Enabling Technologies for Healthcare 20th August 2016**
  - The IEEE EMBS Kerala Chapter in association with Rajagiri BIRDS (Biomedical Instruments Research and Development Society), conducted a workshop on 'Enabling Technologies for Health Care' at Rajagiri School of Engineering and Technology (RSET) on 20th August 2016. The workshop provided a forum for researchers in the medical & engineering field to exchange their innovative ideas and its solution for clinical applications to improve human health, m-Health, e-Health, and Tele-Health. The participants for the program included researchers, industry personnel, PG & UG teachers and students from engineering colleges having biomedical engineering.

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Major Student and Affinity Group Activities

- **Early Career Faculty Development Program** : Young Professionals
  - The event was organized for the early career academicians from engineering colleges of the state to boost their technological awareness and IEEE awareness. The Young Professionals AG with the help of IEEE Educational Activities Board had evolved a program for the Kerala specific needs, which could be useful for the rest of the developing countries as well.

- **Volunteer Leadership Training [VOLT]**
  - –To the newly inducted Student Leaders
  - –From SAB and Section Office bearer team

- **Branch Councillors Congress**
  - Open discussion with the Hon. Vice Chancelor of APJ Abdul Kalam Kerala Technological University on the relevance of Professional Societies in Engineering Education.
  - 36 Student Branch Counselors attended

- **STEP (Student Transition Elevation Program) & TISP (Teacher In service Porgram) Boot Camp** : Young Professionals & WIE
  - IEEE STEP (Student Transition and Elevation Partnership program) aimed to convey the benefits of IEEE Young Professionals and thereby facilitate the easy transition of Student member to Young Professional. The participants included recent graduates, Graduate Student members & final year students along with a diverse attendee list of Industry Professionals, Entrepreneurs and Academicians.

- **LMAG -** A one week Innovation Workshop was organised from 31 July – 6 Aug 2016 at Sahrdaya College of Engineering &Technology, Thrissur as part of 11th TechTop National Innovation Contest for Engineering College Students in India. Mentoring and Evaluation of the Projects were done by Life Senior Member Prof. V. K. Damodaran as Chairman.
- **Volunteer Leadership Programme -** LMAG Kerala organized a one-day Volunteer Leadership Training Workshop for the Young Professionals and WIE members of Kerala Section on Sunday, 30 Oct 2016, at Vidya Academy of Science and Technology (VAST), Thrissur. This program was organised by Kerala Section as an R10 New Initiative for 2016, with Kerala Section LMAG in the lead for planning and execution.

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Awards

Kerala section has been appreciated and recognized on a global scale by awarding the Section and many of its volunteers for their efforts towards the vision and mission of IEEE.

- **IEEE Kerala Section : IEEE MRRC Award - 2016 Outstanding Section membership Recruitment award**
- **Kerala Young Professionals Affinity Group : 2016 IEEE Young Professionals Affinity Group Hall of Fame Award**
- **Shahim Baker : 2016 IEEE MGA Young Professionals Achievement Award [Industry]**

- **Richard E Merwin Scholarship - 7 out of 10 for R10 came to Kerala Section**
  - **Megha Ben,** College of Engineering Trivandrum
  - **Balagopal U,** College of Engineering Trivandrum
  - **Sujay S,** AISET, Kochi
  - **Roshen Roy,** SJCET, Palai
  - **Anand,** FISAT,Kochi
  - **Joys Maria,** CEC,Chengannur
  - **Kevin Joseph,** College of Engineering, Trivandrum

- **2016 Darrel Chong Award**
  - TKM College of Engineering was listed in GOLD Category for WIE Energy Management Drive
  - M A College of Engineering, Kothamagalam was listed in Silver Category for IEEE Job fair
  - _
- **CEC Chengannur - Regional Exemplary Student Branch Award for Region 10**
- **MES, Kuttippuram - Outstanding Student Branch Award by IEEE India Council.**
- 3 Volunteers graduated IEEE VOLT Program from Kerala Section in 2016
  - **Bibin Parukoor Thomas**
  - **Shahul Hameed**
  - **Vijay S Paul**

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A.2 Financial Report

The summary of financial activities of the section as per submitted Netsuite reporting is as below.

IEEE
IEEE : Region 10 :
Region 10 INR
Balance Sheet

End of Dec 2016

Financial Row	Amount
Current Assets	
Bank	
70199 - Indian Overseas Bank KERALA	Rs.1,262,391.218
72242 - KERALA Petty Cash	Rs.2,152.78
Total Bank	**Rs.1,264,543.996**
Total Current Assets	**Rs.1,264,543.99**
Current Assets Less Current Liabilities	**Rs.1,264,543.99**
Total Assets Less Current Liabilities	**Rs.1,264,543.99**
Long Term Liabilities	
74246 - Reserve Allocation Payable	Rs.237,658.29
Total Long Term Liabilities	**Rs.237,658.29**
Total Assets Less Total Liabilities	**Rs.1,026,885.70**
Capital and Reserves	
Retained Earnings	Rs.1,247,448.22
Net Income	-Rs.220,562.52
Total Capital and Reserves	**Rs.1,026,885.70**

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PART B - ORGANIZATIONAL ACTIVITIES

B.1 Membership Development Activities

Total number of active members in the past 6 years.

Member Grade	2011	2012	2013	2014	2015	2016
Life Members	8	8	10	10	13	13
Senior Members	57	60	74	84	90	120
Members	692	950	916	891	867	936
Associate Members	50	27	35	49	62	40
Affiliate Members	-	-	4	6	-	-
Graduate Student Members	467	427	477	664	429	617
Student Members	3903	4290	4092	3645	5461	6187
Total	5177	5762	5572	5349	6922	7914

Summary and evidence of work done to improve the value of membership, which leads to retention and growth of members

- **29% of members in Kerala are WIE members**
- **60% of professional members in Kerala are Young Professionals**
- **214 members are eligible to be elevated to Senior Membership!**
- **We received the "2016 Outstanding Section Membership Recruitment Performance Award"**

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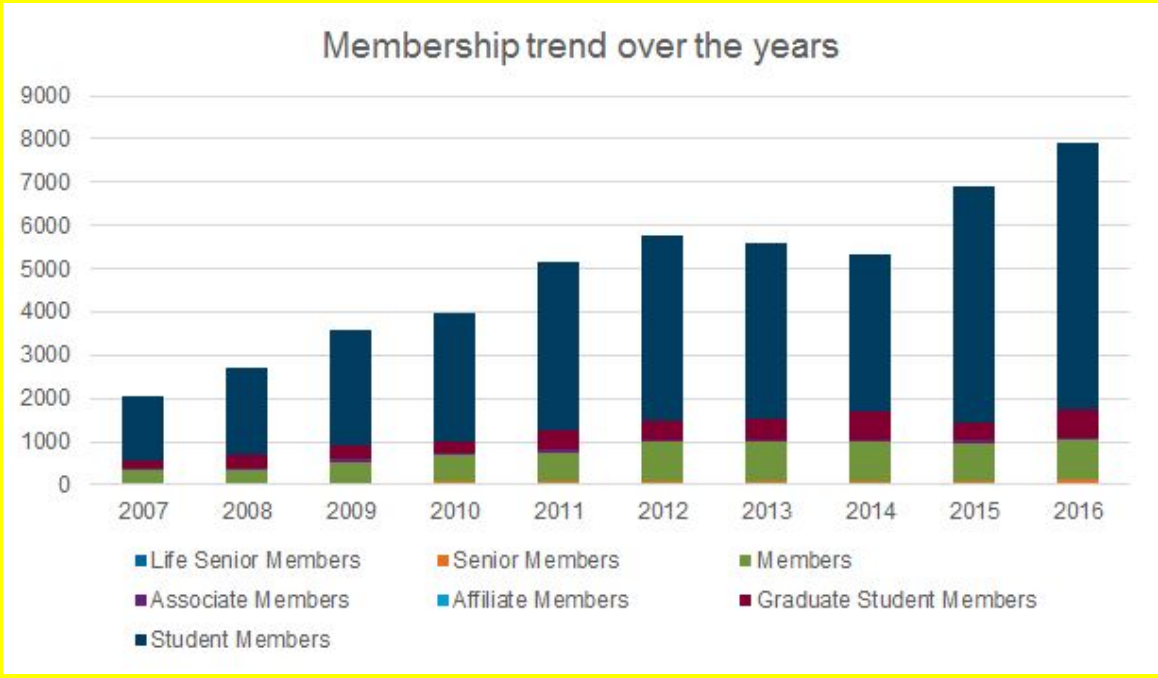

B.2 Chapter Activities

Total number of Chapters in the Section :

Kerala Section has a total of **Ten** Society Chapters.

1. Power & Energy Society
2. Computer Society
3. IA/IE/PEL Joint Chapter
4. Communication Society
5. Society on Social Implications of Technology
6. Antenna & Propagation Society
7. Robotics and Automation Society
8. Signal Processing Society
9. Engineering in Medicine and Biology Society
10. Circuits and Systems Society

Number of Chapters formed in the current year

- NIL

Number of active Chapters

- All chapters have reported the required number of meetings during 2016.

Summary of Chapter activities

A list of activities organized by society chapters is listed here.

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Power and Energy Society

- Research Group Meeting ,Trivandrum Cluster I, College of Engineering, Trivandrum on 08th January 2016.
- Tech Talk at John Cox Engineering College, Trivandrum on 29th January 2016.
- Workshop at College of Engineering, Munnar on 06th February 2016.
- Research Group Meeting - Kollam Cluster at College of Engineering, Kollam on 06th February 2016.
- Quiz Competition Finals at T.K.M. College of Engineering, Kollam – 06th February 2016
- Research Group Meeting - Trivandrum Cluster II at Government Engineering College BartonHill, Trivandrum on 13 February 201.
- Seminar Series Finals – Power Augmentation in Kerala, Trivandrum on 18th February 2016.
- Tech Talk at T.K.M. College of Engineering, Kollam - 01-Mar-2016
- National Workshop on Electric Power Quality (EPQ 2016) at NIT, Calicut on 11th & 12th March 2016
- Tech Talk at Mohandas College of Engineering & Technology, Trivandrum on 11th March 2016
- Research Group Meeting – Kozhikode Cluster at NIT, Calicut on 12th March 2016.
- Tech Talk at Kochi – Power System Communications at AISAT, Kochi on 17th March 2016.
- Research Group Meeting - Kochi Cluster at M.A. College of Engineering, Kothamangalam on19th March 2016.
- Presentation at Muslim Association College, Venjaranmmoodu on 9th May 2016.
- Participated in the Sasthra Vismaya Project held at Agali on 12th June 2016.
- Dream Home Project contest was held at Travancore Hub Level on 01st October 2016
- Inauguration of IEEE Day function at Lourdes Matha College of Engineering, Kuttichal and Presentation of Exponential Technology was done on 4th October 2016
- Student Branch level PES Quiz was held on 04th October 2016
- Training for Finalists of Dream Home Projects at Energy Management Centre on 15th October 2016
- Quiz Competition for 1st Year Engineering College Students - 7th Year Finals held at Bishop Jerome Institute, Kollam on 5th November 2016
- PES AGM was held at Kollam on 13th November 2016.
- Flagship program of PES in 2016 is a Power and Energy society chapter research group formation. Power & Energy Research Group Trivandrum, Kollam, Kochi and Calicut Cluster Meetings were held. 25 problems were identified and taken for further study and analysis. Signed of MOU with Corresponding Parties like KSEBL, ANERT, EMC, Engineering Colleges and PES Kerala Chapter.
- Dream House Project: Students designed a Dream House Sponsored by Energy Management Centre.

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IA/IE/PEL Joint Chapter

- On **8th January 2016 an Industrial Interaction session based on "Technology Advancements in Traction Methods in Indian Railways"** was conducted by the Electrical and Electronics Department, in association with IEEE IAS VJEC SBC at Vimal Jyothi Engineering College, Chemperi. The main objective of the session was to improve the knowledge in the field of Indian Railways and help job opportunities in the field, as Indian Railways is one of the largest employer all around the Globe.
- A **project presentation competition "RAYO 2K16" was organized on 4th Feb'16 for the final year students in association with IEEE IAS VJEC SBC**. The students presented their ideas and innovative thoughts on the same day. 11 teams participated for the project presentation. An exhibition of the projects they have done was also made for the 1st , 2nd and 3rd year students. The project competition was very tough and the valuation was done for find the best of the lot. The first place was awarded for the project, "Design and estimation of traction substation"; second prize was awarded for the project "A sophisticated system for the visually impaired" and the third place was awarded for the project "DTMF controlled Land rover".

- On 22nd October 2016, INTERFACE an event jointly organized by Malabar sub section, Industry Application Society and Technology Business Incubator at NITC had out of over 50 start-up ideas received, 18 of them were shortlisted with judges from TBI and Maker Village. Online mentoring sessions (from 10th Oct onwards) by experts from the business field was provided. First prize worth Rs. 25,000/-was bagged by Amal Jyothi, Kanjirapally and the Maker Village shall nominate the project to Start-up Village.

2015 Outstanding Section Membership Recruitment and Retention Performance
Kerala Section

Computer Society

- IEEE CS Society in collaboration with Dept. of Computer Science, CUSAT conducted 2-day Faculty Development Workshop on Building IoT Applications during 15th & 16th June 2016
- IEEE CS - IoT Symposium: Steering committee formed with Mr. Srinivasan R as chair. The event is expected in Oct-Nov 2016.
- MOU with GTech: Discussing with the new GTech Secretary Mr. Vijayakumar to finalise the terms and conditions
- IEEE International Conference on Data Science and Engineering (ICDSE 2016) during 23rd -25th August 2016 at Cochin University
- IEEE Computer Society students chapter was inaugurated at College of Engineering Karunagappally on 18th February 2016
- IEEE CS Society Chapter Execom meetup organized on 2nd October at College of Engg. Trivandrum to attract CS student memberships & chapters.
- IEEE All Kerala Computer Society Student Congress organized at RIT Kottayam jointly with IEEE SB, RIT Kottayam.
- 'Ruby - Programmers Best Friend' conducted on 17th December 2016 in Kochi. Speakers: Mr. Vishnu Gopal CTO, SV.CO and Mr. Harishankar, CEO, Red Panthers

Communication Society

- Two DLPs one each in Trivandrum and Kochi in association with EMBS and SSIT on the topic " Cooperative service Management in Healthcare sector:

2015 Outstanding Section Membership Recruitment and Retention Performance
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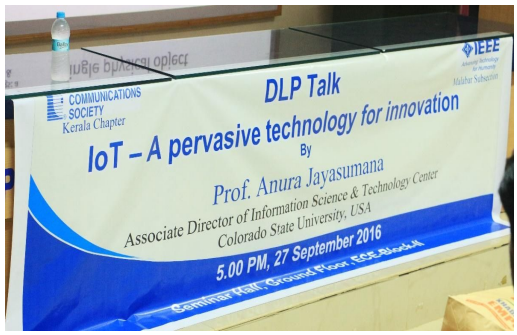
Emerging Trends and Future challenges.

- 30 March 2016 - CDAC, Trivandrum
- 31 March 2016 - RSET, Kochi

- Distinguished Lecture Program by Prof. Anura Jayasummana, Colorado State University,US held on 26th September was held at CUSAT & Adisankara Institute of Technology and on 27th September at NIT, Calicut on the topic - IoT – A pervasive technology for innovation.



- Two on day Workshops were held during KITES 2016. Workshops were on 5G and Li-Fi respectively on 21st and 22nd October, 2016. Resource Person was Mr. Anand M, Senior Research Engineer, Centre for Development of Telematics
- Shannon's Centennial Workshop on Communication and Information Theory was held on 13th December 2016 at CDAC, Trivandrum. It had invited talks, poster presentation and Ph.D forum

Antenna & Propagation Society

- Invited Talk on Antennas & Polarimetric Radars 29th Feb 2016, Venue: Department of Electronics, Cochin University of Science and Technology
- Speaker: Dr. Subramaniam Ananthakrishnan, former President of International Radio Science Union, Commission(2008-2011). Presently adjunct professor, University of Pune
- A total of 32 participants (Students, research scholars and faculty members including seven society members) participated in the event.

IEEE
2015 Outstanding Section Membership Recruitment and Retention Performance
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- On 15th October 2016, IEEE Kochi sub section in association with APS Society organized a visit to Advanced centre for Atmospheric Radar Research.
    - VHF Wind profiler Radar, entirely with indenous design and technology qualifying it to be a part of Make in India
    - Designed to work at 200 MHz frequency, first of its kind in the world

Engineering in Medicine and Biology Society Chapter

- Technical talk : Assistive Technologies in Health Care by Prof. Pradeep Kumar Ray at CDAC, Tvm on 30th March 2016, in association with IEEE ComSoc.
- Training Program (2days): ISO 13485 - Quality Management Systems for Medical Devices: A Qualitative Step in Medical Domain on 11th and 12th May 2016 at Sahrdaya College of Engineering & Technology, Thrissur.
- Technical Talk: ICT in Healthcare- Today and Tomorrow for eHealth Kerala, by Mr. Sasi PM at IIITMK, Tvm on 1st July 2016.

- IEEE EMBS Kerala Chapter, in association with Rajagiri School of Engineering and Technology conducted a workshop on Enabling Technologies for Healthcare at Rajagiri College, Cochin on 20th August 2016.

- Dr. Suresh Nair, chair, IEEE Kerala Section attended the function. Dr.Binu Joy, Head Radiology, Rajagiri Hospital, Mr. Koruthu P Varughese, Chair , IEEE EMBS Kerala and Mr. PM Sasi, Vice Chair, IEEE EMBS Kerala presented in the workshop.

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Robotics and Automation Society Chapter

- Robotics Projects at PSG, Dr.B.Vinod, Head of Robotics & Automation Dept., PSG College of Technology, Coimbatore.
- Benefits of Modeling in Robotics, Asst. Prof. A.P. Sudheer, NIT Calicut
- Winning the HRATC challenge at ICRA 2016, Lentin Joseph, Qbotics Labs
- Design and Control of Mobile Robots, Prof. Kurien Issac, Indian Institute of Space Science & Technology
- Advancement of Robotics in Minimally Invasive Surgeries, Jayakrishnan T, Asimov Robotics
- Virtual Prototyping, Dr. Kesavaprasad, Verifygn Consulting
- Machine Vision, Nithin Vadakkepat, Castalia Research Labs
- Opportunities for Robotics at the Electronics Incubator, Kochi, Rohan Kalani, Director Operations, Electronics Incubator.
- From Soccer Robots to Consumer Robots, Rejin Narayanan, CEO, Ingen Robotics
- Smart Materials for Robotics, Sreekanth Madhavan, NIT Calicut
- Control of Mobile Robots, V.R.Jisha, CET
- Programming an Industrial Robot in 10 mins, Asst. Prof. Vishnu, Ammachi Labs

Signal Processing Society

- Organized two talks at CDAC(T) and CET on 09/05/16 & 10/05/16 resp., by Dr Hynek Hermansky, FIEEE (SPS DLP Speaker), John Hopkins University, on Speech Processing after the last EC.
- The reports on the talks were uploaded (L31 form) using vTools to the server.
- One day workshop on signal processing at mes college of engineering kuttippuram on 16-07-2016, Saturday.Topics & Speakers : “Understanding DSP” by Dr. M.V. Rajesh Maliyeckal. Fundamentals of Speech Signal Processing” by Dr. Jayan A.R.
- Organised two lectures by Prof. Hynek Hermanski , IEEE Fellow and by Julian S.

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Smith Professor in Electrical Engineering, The Johns Hopkins University. The first lecture was heldnon 9th June 2016 on the topic 'Multi Stream Recognition of Speech' at C-DAC, Thiruvananthapuram and the second lecture was held on 10th June 2016 on the topic 'Information Extraction from Temporal Dynamics of Speech' at College of Engineering, Thiruvananthapuram

- Organised lecture by an IEEE Fellow Prof. Yoram Bresler, University of Illinois, Urbana-Champaign was held on 13th October 2016 on the topic 'The Origin of Compressive Sensing' at College of Engineering, Thiruvananthapuram
- Organised invited talk by Prof. Jiji C V, Head of the Department , Electronics & Communication ,College of Engineering, Thiruvananthapuram on the topic 'Recent Advances in Computer Vision' was held on 19th July 2016 at C-DAC, Thiruvananthapuram
- Organised Invited Talk by Mr. S. Krishnakumar, Scientist ,E Broadcast & Communications Group, CDAC(T) on the topic 'Signal Processing for RF Transmitters', was held on 22nd November 2016 at Govt. Engineering College Barton Hill, Thiruvananathapuram
- One day workshop on Signal Processing was held at MES College of Engineering Kuttipuram on 16th July 2016 on the topic 'Understanding DSP' by Dr. M V Rajesh Maliyeckal and 'Fundamentals of Speech Signal Processing' by Dr. Jayan A R
- IEEE Signal Processing Society student branch chapter was formed at College of Engineering, Trivandrum with effect from 21st November 2016

Society for Social Implications in Technology

- One day workshop on "**Recent Developments in Amateur Radio**" at KSTM in association with SSIT, ISOC, TARS & KSTM – 17 September 2016
- Hosted ISTAS 2016, the flagship conference of IEEE SSIT which was a resounding success

Circuits & Systems Society

1. Two workshops on Flipped learning
2. CAS student projects
3. And supporting the TISP program
4. Participation in APCASS event

B.3 Professional and Continuing Education Activities

Summary of continuing Educational activities including conferences, technical activities, training courses, and distinguished lecture programs

2015 Outstanding Section Membership Recruitment and Retention Performance
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IYL Celebrations – Reaching out to Students by Kerala Section along with KSSP

- International Year of Light and Light based Technologies (IYL 2015) enters its Finale with a 3-day State Bala Saastra Vijnaanotsavam (Children's Science Fest) in CUSAT campus, Kochi, in early April 2016,mentored by the IEEE Kerala Section with its partners for the year long campaign – the Kerala Sastra Sahitya Parishad (KSSP) and the Energy Management Centre (EMC) Kerala. Aware of the fact that light plays a vital role in our daily lives, while revolutionizing medicine, international communication, computing and economical as well as political aspects of the global society, UNESCO had launched this campaign to sensitise the public, especially the school children, on the role of light in human life as well as how well it could be utilized for human welfare.
- IYL activities in Kerala: IEEE with its bye line "Advancing Technology for Humanity", IEEE Photonics Society and the IEEE Kerala Section [Adjudged as the Outstanding Large Section by MGA Board of IEEE in 2014] feels that it is their responsibility to shed a bit of light on light based technologies and their future potential to the students in schools.The IYL festivals in Kerala started with attracting 1.4 million students from 80% of the 12,600 plus schools in the State, who in successive steps at nearly 700 local government (Panchayat & Municipal) level, 129 regional, and 14 district level fests, experiencing the joy of learning of optics and related technologies, experimenting and chalking out projects to showcase their understanding on the role of light in energy, industry, medicine, communications and what not. By the beginning of 2016, 76 students from Upper Primary sections and 81 from High School sections have emerged as the ones to be mentored, challenged on their ability to apply what has been learned, and to formulate new projects to try on their own at the State Fest from 5 to 7 April '16.

Conferences:

ISTAS 2016 :

- **Flagship Conference of IEEE SSIT**
- First time hosted in a developing economy and first of it's kind in Kerala
- Inaugurated by Dr. T.M Thomas Isaac , Finance Minister of Kerala on 20th Oct 2016 at Trivandrum, Kerala
- 200 Delegates from 9 countries participated in CEW and Technical tracks on 21st and 22nd Oct.
- **Dr. Michael Lightner , IEEE President (2006)** delivered the keynote address on "Disruptive Technologies and society: Challenges for Developing Countries "
- 23 papers presented in four tracks.

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Distinguished Lecture Programs

The Section in association with various society chapters organized Distinguished Lecture Programs during 2016. A brief summary is given here.

- DLP by Prof Yoram Bresler @ CET and Amritha University, Kollam on October 13th & 14th , 2016 respectively
- DLP by Prof. Tulay Adali, Fellow IEEE on 22-10-2-16, Saturday @ College of Engineering, Trivandrum on Data-Driven Analysis of Medical Imaging Data: Overview, Challenges, and Prospects
- COMSOC in association with Kochi sub section arranged Distinguished Lecture on 26th September on the topic: 'IOT – A pervasive technology for innovation' by

2015 Outstanding Section Membership Recruitment and Retention Performance
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Prof. Anura Jayasumana at CUSAT and Adi Shankara College of Engineering

- IEEE Communications Society – Kerala Chapter in association with Malabar sub section conducted Distinguished Lecture Program on 27th September – 'IoT – The Internet of Things' at NIT Calicut

Technical Activities:

Early Career Faculty Development Program:

- Faculty Development Program on 'Smart Grid and Integration of Renewable Sources' was held during 13th – 17th December 2016 at NSS College of Engineering, Palakkad

Section Internship Program

–First of its kind by the section ECC team

–Training on Web Development, Content Writing, Graphic Design

–Of 89 Applications 21 completed the training

Technically Co-sponsored International Conferences in 2016

2016 International Conference on Data Mining and Advanced Computing (SAPIENCE 2016) by Sree Narayana Gurukulam College of Engg, Kolenchery from 16-18 Mar 2016

International Conference on Communication Systems and Networks (ComNet 2016) by Mar Baselios Institute of Technology, Trivandrum from 21-23 Jul 2016

International Conference in Information Science 2016 (ICIS 2016) by College of Engg, Cherthala from 12-13 Aug 2016

2016 International Conference on Data Science and Engineering (ICDSE 2016) by CUSAT from 23-25 Aug 2016

2016 International Conference on Next Generation Intelligent Systems (ICNGIS 2016) by Rajiv Gandhi Institute of technology, Kottayam from 1-3 Sept 2016

6th International Conference on Advances in Computing & Communications (ICACC 2016) by Rajagiri School of Engg & Tech, Kochi from 6-8 Sept 2016

International Conference on Antennas and Propagation (APSYM 2016) by CUSAT from 19-21 Dec 2016

International Conference on Robotics and Automation for Humanitarian Applications (RAHA 2016) by Amrita University from 18-20 Dec 2016

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Kerala Section

B.4 Students Activities

The student Activities of Kerala Section is vibrant in organizing activities and promoting the vision of IEEE across the state. With 87 student branches and 5800+ members, the student team led by the student activities chair support and volunteer to any activity that needs technological solutions.

For effective management of such a vibrant, geographically spread student membership, the section has been following the hub and spoke administrative model; the Local Integrated Network of IEEE in Kerala (LINK). The primary aim of LINK is networking student branches in an effective way, thereby increasing the value in IEEE Student membership. LINK has achieved tremendous results, causing an exponential increase in student branches and student activities in IEEE Kerala Section. The LINK and its subsidiary HUB teams (three in numbers divided as Travancore Hub, Kochi Hub and Malabar Hub for the geographic distribution of Kerala Section) are being trained with effective leadership skills which is being passed on to the student community, thus improving key skills like professionalism and ethics in students.

Total number of Student Branches in the Section:

The section has 87 student branches spread across the state, being monitored and mentored by the LINK team.

1. Adi Shankara Inst of Engineering & Tech
2. Adoor College of Engineering
3. Al-Ameen Engineering College
4. Amal Jyothi College Of Engineering
5. Amrita Vishwa Vidyapeetham
6. Aryanet Institute of Technology
7. AWH Engineering College
8. Baselios Mathews II College of Engineering
9. Bishop Jerome Institute
10. Caarmel Engineering College
11. Chengannur College Of Engineering
12. Cochin Univ of Science & Tech
13. College of Engineering Thodupuzha/ Mahatma Gandhi University
14. College of Engineering - Attingal
15. College of Engineering – Karunagappally
16. College of Engineering - Kottarakkara
17. College of Engineering - Kalloopara
18. College of Engineering - Munnar
19. College of Engineering - Trikaripur
20. College of Engineering - Thalassery
21. College of Engineering - Vadakara
22. College of Engineering - Cherthala
23. College of Engineering - Kidangoor
24. College of Engineering - Perumon
25. College of Engineering - Poonjar
26. Federal Inst of Science & Tech

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27. Government Engineering College - Sreekrishnapuram
28. Government College of Engineering - Kannur
29. Government Engineering College - Barton Hill
30. Government Engineering College - Kozhikode
31. Government Engineering College - Idukki
32. Government Engineering College - Thrissur
33. Government Engineering College – Wayanad
34. Heera College of Engineering and Technology
35. IES College of Engineering
36. Ilahia College of Engineering and Technology
37. Indian Institute of Space Science And Tech
38. Jawaharlal College of Engineering and Tech
39. John Cox Memorial CSI Institute of Technology
40. Jyothi Engineering College
41. K M C T College of Engineering
42. KMEA Engineering College
43. LBS College of Engineering
44. LBS Institute of Technology for Women
45. Lourdes Matha College of Science and Technology
46. Malabar College of Eng
47. Mangalam College of Engineering
48. Mar Athanasius College of Engrg
49. Mar Baselios Christian College of Eng & Tech
50. Mar Baselios College of Eng & Tech
51. Marian Engineering College
52. MEA Engineering, College - Perinthalmanna
53. MES College Of Engineering
54. Model Engineering College
55. Mohandas College of Engineering & Tech
56. Mount Zion College of Engineering
57. Musaliar College of Engineering & Technology
58. Muslim Assoc Coll of Eng Venjaramood
59. National Institute of Electronics & IT Calicut
60. National Institute of Technology Calicut
61. Nehru College of Engineering and Rch Centre
62. NSS College of Enngineering
63. Rajagiri School Of Engineering & Tech
64. Rajiv Gandhi Inst Of Tech
65. Royal College of Eng and Tech - Akkikkavu
66. Sahrdaya College Of Engineering & Tech
67. Saintgits College Of Engineering
68. Sarabhai Institute of Science and Tech
69. SCMS School of Engineering & Tech
70. Sree Buddha College of Engineering
71. Sree Chitra Thirunal College Of Engineering
72. Sree Naranyana Gurukulam College Of Eng
73. Sree Narayana Gurukulam College Of Engrg
74. Sreepathy Institute of Management & Technology
75. St Joseph College Of Engineering & Tech-Palai
76. Thangal Kunju Musaliar Inst Of Tech

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77. Thejus Engineering College
78. Tkm College Of Engrg
79. Toc H Institute of Science and Technology
80. Trivandrum College Of Engrg
81. UKF College of Engineering and Technology
82. Univ Of Kerala,Kariavattom
83. University Of Kerala - Kariavattom
84. Vidya Academy Of Science & Tech
85. Vimal Jyoti Engineering College
86. Viswajyothi College Of Eng & Tech
87. Younus College of Eng & Tech

Number of Student Branches formed in the current year:

1. John Cox Memorial CSI Institute of Technology
2. College of Engineering Perumon
3. UKF College of Engineering and Technology
4. Aryanet Institute of Technology AIT
5. Heera College of Engineering and Technology
6. Mar Baselios Christian College of Engg & Tec
7. Mangalam College of Engineering
8. College of Engineering, Thalassery

New Student Branch Chapters

1. Adoor College Of Engineering, PE31 Power & Energy Society
2. College of Engineering - Attingal, C16 Computer Society
3. College of Engineering - Karunagappally, PE31 Power and Energy Society
4. College of Engineering Trikaripur, PE31 Power & Energy Society
5. College of Engineering-Attingal, IA34 Industry Applications Society
6. College of Engineering-Attingal, RA24 Robotics and Automation Society
7. Government Engineering College-Thrissur, C16 Computer Society
8. Government Engineering College-Thrissur, PE31 Power & Energy Society
9. LBS Institute of Technology for Women, C16 Computer Society
10. LBS Institute of Technology for Women, RA24 Robotics and Automation Society
11. Mar Baselios Christian College of Eng & Tech, PE31 Power & Energy Society
12. Mar Baselios College of Eng & Tech, RA24 Robotics and Automation Society
13. MES College Of Engineering, RA24 Robotics and Automation Society
14. MES College Of Engineering, SP01 Signal Processing Society
15. Rajagiri School Of Engineering & Tech, IA34 Industry Applications Society
16. Sahrdaya College Of Engineering & Tech, EMB18 Engineering in Medicine and Biology Society
17. Trivandrum College Of Engrg, SP01 Signal Processing Society

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Kerala Section

Section level student activities

Highlights

- Conducted IEEE Job Fair 2016
    - A long standing dream of Kerala Section
- 5 LINK Events, 15 Hub events, 750+ SB events.
- 8 new SB's formed, 20 new SB Chapters/AGs formed
- Section was represented by students at the R10 SYLWC 2016 Bangalore, WIE ILC Pune, AISYWC Jaipur in significant numbers.
- Section Internship Program in 3 verticals
- 7 Richard E Merwin Scholarships of 10 in Asia Pacific
- 2 Darrel Chong Awards
- R10 Infographic Contest Winner

IEEE LINK Face 2 Face :

Face 2 Face is the annual Volunteer Leadership and Training program for student branch leaders. The training is offered typically during the month of January; new Execom members of all SBs in the section are invited to one location in the section. The new team members get to know each other, improving networking and inter student branch activities. SB life cycle is one important aspect which is touched upon, from maintaining accounts to performing annual reports and submitting reports for the previous year.

In 2016, IEEE LINK F2F was held at Model Engineering College, Thrikkakara, on 20th February. The new office-bearers were provided an opportunity to network and discuss about the various student branch activities, student branch execom responsibilities and also current developments in student activities. Reporting and Membership Development were discussed with greater importance.

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Branch Councilors Congress:

- This is an event aimed at increasing the interactions between the different student branch counselors in order to increase the student activities in different student branches. IEEE All Kerala Branch Counselors Congress 2016 was held at Abad Plaza, in presence of Dr Kuncheria P Isaac(Hon VC, KTU) and Dr Suresh Nair, Chair(IEEE Kerala Section). 26 SB Counsellors across Kerala attended the event.
- Interaction with Dr. Kuncharia P Issac, VC, APJ Abdul Kalam Kerala Technological University on the "Role of Professional Societies in the new KTU Regulations" was part of the event.

All Kerala Student Congress (AKSC)

All Kerala Student Congress is the annual flagship event of IEEE LINK, the student activities community of IEEE Kerala Section. The Congress sees an annual participation of 200+ students from across the length and breadth of the state. It is a techno managerial event which provides opportunity for student delegates to network among their peers and get exposed to the various opportunities within IEEE.

The event provides opportunity for undergraduate students to improve their professional and technical skills with sessions from renowned speakers. The Congress has seen the rise of many active IEEE volunteers and is an integral part of the student experience within the section. It also provides them with opportunities for personal and professional advancement, trainings and competitions.

In 2016, AKSC was held at MES College of Engineering on 13th, 14th, and 15st of August. Around 420 members from 42 student branches over Kerala registered for the event which was packed with 16 sessions along with cultural programs and competitions. The highlight sessions of AKSC this year was on Astrophysics, Intellectual Property Rights, Etiquettes, Energy Security, IEEE Products and SIGHT Projects. It witnessed involvement of society chapters IAS, EMBS and also SIGHT. Hence the event focused more on developing the habit of subject oriented volunteering in members.

Kerala IEEE Technical Exhibition and Symposium (KITeS)

The Kerala IEEE Technical Exhibition and Symposium (KITES) ‘16 supported by IEEE India Initiative, held on 21st-23rd October 2016 at LBS institute of Technology for Women, had set high hopes in bringing out trained professionals and dedicated volunteers from among its participants in order to be the waves of change that can engineer the future of our country and enhance the technology based skill sets that will be innovative, productive and humanitarian in vision. Being one of the flagship events of IEEE LINK (Local Integrated Network of Kerala IEEE Students) , KITES focuses on providing technical enrichment by offering multiple workshops as well as competitions to showcase the technical skills of the participants.Students from various parts of the section exhibited their project ideas, prototypes and technical papers which were evaluated by senior members of the section.

The event had 6 workshops classified into beginner level and intermediate level including Future Technologies, Data Science, Robotics and Automation, Electronics 101, MATLab and LabView. The participant count accounted to 190, 15 projects were exhibited and 13 papers were presented at the venue. Separate tracks were offered for first time members as well for students belonging to KTU.

IEEE LINK Camp

LINK Camp is a two day introspection event where all the student branch executive committee members come together to present the activities at their SBs in the previous year. LINK Camp provides a venue for the new office bearers to understand the working of a student branch in a broader way. It also plays a major role in developing a strong network between the new executive committee members of different student branches.

The 2016 version of LINK Camp was during 30th-31st December at Hotel Capital, Trivandrum. Student Branch Executive Committee members presented the report on their student branch activities for the past year before the Section officials and the LINK/ HUB Team 2016. A platform for open discussion was provided to point out the flaws in functioning during the past year and reviews on LINK/ HUB events were also collected through the discussions. Interactive tracks were also organized to maintain communication between student branch officials and the senior members of IEEE Kerala Section. The interview for the LINK/ HUB Execom 2017 was also held parallel to the event and the proposed newly elected execom was declared during the closing ceremony of the event.

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HUB Events

IEEE Travancore Hub

- **WIE F2F –** ARIA
  - Organized by Marian Engineering College
  - 12th March
  - 120+ Students participated

- **WIE STAR-** WIE Emerge
  - Organized by Mohandas College of Engineering and Technology
  - 3rd July
  - Official Launch of Hub's WIE STAR program WIEDZA
  - 100 Students participated

- **Travancore Hub Meet**
  - Organized by GEC, Barton Hill, Trivandrum
  - 27th - 28th August
  - 200+ Students participated

- **WIE Congress** - IGNITE
  - Organized by College of Engineering Adoor
  - October 2nd to 4th
  - 150+ Participants
  - Focused on Women in Entrepreneurship and Engineering
  - 10+ Sessions and a 24 hr Hackathon

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IEEE Kochi Hub

- **WIE F2F -** MINERVA
  - Organized by Ilahia College of Engineering and Technology
  - 12th March
  - 66 Participants

- **Kochi Hub Meet**
  - Organized by M A college of Engineering, Kothamangalam
  - 26th - 28th August

- **WIE Congress** - SHE
  - Organized by Saintgits College of Engineering
  - 1st-2nd Oct
  - 131 Participants
  - Focused on Women in Technology

IEEE Malabar Hub

- **WIE F2F -** AUXESIS
  - Organized By Govt. Engineering College Kozhikode
  - 6th March
  - 43 Participants

- **Malabar Hub Meet** – SANGRAHA
  - Organized by NIT Calicut
  - 8-10 July 2016
  - 201 participants
  -
- **WIE Congress -** AMBER
  - Organized By Govt. Engineering College Kannur
  - 10th-11th October
  - 175 Participants
  - Focused on inspiring, motivating and empowering women in Engineering field
  -

Other Notable events:

- **Entrega '16**
  - Organized by TKM College of Engineering, Kollam
  - 48 hr Hackathon for Female students
  - Initiative of SB's WIE Affinity Group

- **All Kerala Computer Society Students Congress** (AKCSSC)
  - Organized By Rajiv Gandhi Institute of Technology, Kottayam
  - 31st October
  - 12 CS Chapters across Kerala
  - Technical Talks and CS Chapter Operations

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Electron Devices Society SB chapter

- On 29th September 2016, IEEE Malabar sub section jointly with Electron Devices Society organized a Seminar on 'History of Silicon Technology' at NIT Calicut.

  Speaker: Prof. Deleep R Nair, IIT Madras

Number of active Student Branches

Of the 87 student branches in the section, Forty eight student branches have completed all mandatory reporting as of January 2017

Summary of Student Branch activities
The section student activities received the following awards in 2016

Two IEEE Darrel Chong Awards

- TKM College of Engineering, Kollam was listed in the GOLD category for conducting seminar on Energy Management in Domestic Domain in association with IEEE WIE affinity group and IEEE PES chapter.
- Mar Athanasius College of Engineering, Kothamangalam was listed in the SILVER category for bringing in IEEE Job Fair 2016.

Student Branch Awards

- **CEC Chengannur - Regional Exemplary Student Branch Award for Region 10**
- **MES, Kuttippuram - Outstanding Student Branch Award by IEEE India Council.**

Richard E Merwin Scholarship

- Seven REM Scholars were there this time from IEEE Kerala Section. Out of the 10 awardees from Region 10, seven of them were flowing to IEEE Kerala Section.

Student Branch Events

Over 800 events were reported by student branches across Kerala, evenly spread across the 3 hubs. This was to improve the student member benefits of this geographic region as there are only few educational institutions to this part of the state and is remote. Despite these difficulties, it was observed that $^{1}/_{3}^{rd}$ events of student activities have been at the Malabar region and this in itself is an achievement.

- **800+ activities reported**
- **48% increase in activities over 2015**

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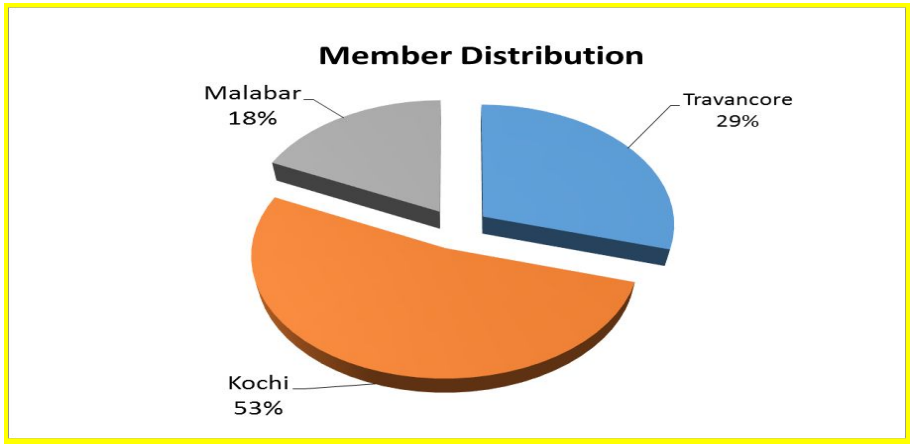

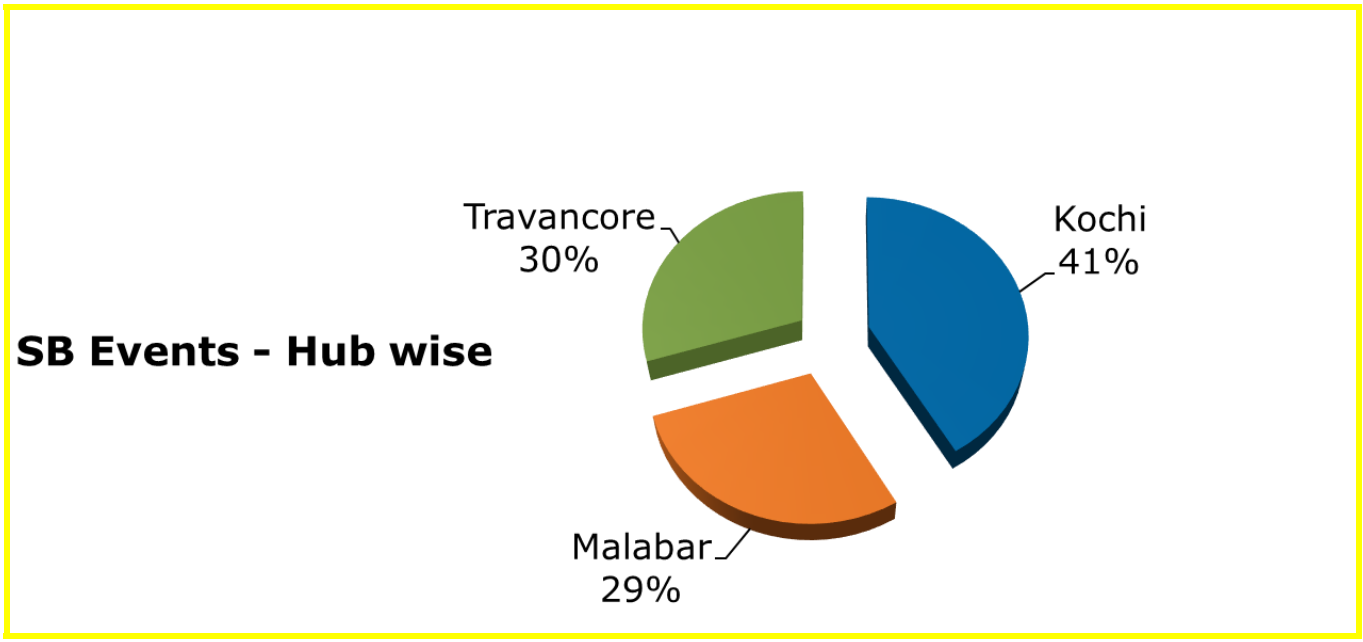

B.5 Affinity Group Activities

Young Professional (YP)

- Raspberry Pi Workshop in association with Kerala Start-Up Mission for 8th standard students supported by IEEE R10 EA Committee was held on 16th October 2016 at Trivandrum (ICFOSS)

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- Workshop On Assistive Technology
    - Assistive Technology Workshop on Prosthetics and Orthotics and Career Guidance for differently able pre-university students supported by IEEE R10 Educational Activities Committee was held on 23rd October 2016 at Trivandrum

- Meet-Up during ISTAS 2016

  Micro Meet-Up was held on 21st October 2016 during first day of the International conference ISTAS 2016 held at Kovalam

- News Report on ISTAS 2016 was published on 9 Dailies

  o

- News Report on IEEE Day Torch Relay was published on 9 Dailies

- **Karen Bartleson – 2017 IEEE President Visit- 23 August 2016 –** Ms Karen Bartleson, 2017 IEEE President, visits Kochi as Guest of Honour for ICDSE 2016 at CUSAT and interacts with IEEE Volunteers. She also visits E-Scientia Exhibit.

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- **STEP - Student Transition & Elevation Partnership Program**

    - The event was targeted at the final year students and recent graduates with the core objective of introducing IEEE Young Professionals and the various benefits of being an IEEE YP member. The event also helped them to explore various avenues for sharpening professional development, technical skills and networking with top professionals in the field of interest.

Women In Engineering (WIE)

- All Kerala WiE Forum 2016 - All Kerala WiE Forum was hosted by AISAT, Kalamassery on 21 September 2016. Ms Keyana Tennant, WiE Program Manager, visits Kochi and interacts with IEEE Volunteers as part of All Kerala WiE Forum.

- Zonal WIE Star was organized within hubs in three phases. In phase 1: volunteers visited schools, phase 2: school students visited Engineering colleges. The three hubs Kochi, Travancore and Malabar hubs organized WIE star as Enlighten, Wiedza and Contessa.

- WIE Congress was organized across the three hubs. At Malabar Hub, it was organized at Govt. College of Engineering, Kannur on 10th & 11th September, 2016. At Kochi Hub, it was organized at St. GITS College, Kottayam on October 1st & 2nd. At Travancore Hub, it was organized at College of Engineering, Adoor on October 1st & 2nd.

- Shastra Vismaya' is a unique initiative by IEEE Kerala Section and the Dept. of Social Welfare, Govt. of Kerala for school going children in the age group 10-15 yrs. The main focus of the event is to inculcate interest towards Science and Engineering among students of the Government shelter homes. The event was a joint venture of IEEE Kerala Section WIE, SIGHT and Young Professionals and active volunteers of these groups were present.In 2016, this was conducted in Agali and Poojappura Boy's Home.

Life Member Affinity Group

- Life member affinity group has 12 Member, 9 from Trivandrum, 2 from Kozhikode and 1 from Ernakulam .
- 3 business meetings were held, at knowledge house on 3rd May, at Darshan on 2nd June and at Viswesarayya bhavan on 29th June.
- Regular Business meetings were held on every second Wednesday at 10 AM.
- Technical Programs: Tech talk was held at John Cox College of Engineering, Trivandrum. It was held on the 29th of January, 2016.
- On 01 March, 2016 another tech talk was held at TKM College of Engineering, Kollam.
- Another tech talk was held the same month. It was held at Mohandas college of Engineering and Technology, Trivandrum on the 11th of March.
- A presentation on the topic "Class room to board room and introduction to IEEE was held on 9th May 2016 at Muslim Association College, Venjarammoodu.
- On the 12th of June 2016, 2 Life Members attended the Shaasthra Vismaya project held at Agali.
- A tech talk was held at Viswesarayya Bhavan on the 29th if June, 2016.
- A Family technical excursion to Liquid Propulsion Centre in Valiyamala on 1st July 2016.
- Last year's reports were submitted and nominated for the R10 outstanding Life Member Affinity Group Award ,2016.
- Participation in Children's Science Congress
- Wikipedia Malayalam Contributors' Training Workshop
- "Why Not?" - Humanitarian Technology Workshop
- Shastra Vismaya (Wonders of Science) – Social Justice Workshop
- Technical Excursion; Family Night-Out Program
- Projects Evaluation for Dept. of Science &Technology, Govt. of India
- Innovation Workshop
- Participation in R10 SYWL Congress
- Innovation for a Better Tomorrow (IBETO)
- Workshop for Counselling Handicapped Children
- Volunteer Training Program
- Planning for "MIT – IIT Make in India" Workshop on Innovation
- Production of Two Books for School Students

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- **Volunteer Leadership Training**

  - Volunteer Leadership Training (VOLT) was an initiative where the present leaders took up the responsibility to carve new leaders from evolving volunteers. The event was graced by the presence of Prof. VK Damodaran (Mentor and Advisor, Young Professionals, IEEE Kerala Section) and Dr. Suresh Nair (CTO, Network Systems Technologies Pvt. Ltd.). The event inauguration was presided by Mr. Ajin Baby (Chairman, Young Professionals, IEEE Kerala Section) and was inaugurated by Prof. VK Damodaran.
  - **Topics for Training**
  - **General Leadership Principles**: This session was conducted by Dr K. K. Jayan, a professional trainer and Director, Lifelong Learning Foundation, Kochi. It was an interactive and interesting programme in which all those present there, including the participants of the training, other Resource Persons and Organisers participated. Through a series of cross interaction, he got involved each and every one among the participants in searching for leadership traits, and identifying issues for solution.
  - **Integrating with Society**: Prof V. K. Damodaran, IEEE R 10 Life Members Coordinator introduced the Volunteer Leader as a 'hot iron on the anvil' and listed out the challenges before Student volunteers as well as young professionals and the need to apportion one's time, attention and resources to face each one of these and emerge as a victor to get 'shaped'. He also reminded volunteer leaders on the need to integrate with the society – the needs changing over time, the speed with which technology is advancing and how IEEE is advocating the slogan Advancing Technology for Humanity. Through his own professional and life experience, he showed how integrating with society is possible for an IEEE volunteer leader, and also the benefits out of it in career advancement too.
  - 3. **Integrity and Ethics**: Er S. Gopakumar, Former IEEE MGA Board Vice Chair of Information Management, stressed the need of ethical volunteering as the need of the hour. He reiterated that integrity and ethical volunteering are the needed basic qualities of a volunteer. He drove home the importance of these two factors with five real life case studies and made the participants themselves to choose the right solution and discuss those with other participants. 4. Excelling both in Career and IEEE volunteering: Er. Vijay S. Paul, Secretary, Kochi Sub Section, and Young Professional leader in IEEE Kerala Section, as well as a very successful young entrepreneur, explained with examples how one can excel both in career as well as in volunteering. IEEE he said, is a huge organization, where young starters can experiment with their leadership skills effectively and practice with élan their leadership skills in their career. As one very close to the participants' age spectrum, he has shined as a role model and he could clarify several current problems which are contemporary to the younger generation of IEEE members

Special Interest Group Humanitarian Technologies [SIGHT]

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- Shastra Vismaya at Agali
- Amarnath Raja, Ranjit R Nair & Jayakrishnan M C Participated in SIGHT camp by ADSAF [Association of Deep Sea Going Artisanal Fishermen] at Thoothoor, Tamilnadu
- Amarnath Raja supported the SIGHT YP Hackathon at Tokyo

- **All Kerala SIGHT meet up** held at GEC Thrissur on July 9 , 2016
  Humanoid Project was one of the successful projects that came out from the SIGHT meetup

- **"HUMANOID"** conducted at Government engineering college Thrissur on 5th NOV 2016 by IEEE SB GEC Thrissur, SIGHT and RAS chapters in association with Alpha pain and palliative care unit-Thrissur. The main part - Specially modified wheelchair for Mr. Vishnudas (suffering from muscular dystrophy) was handed over to his father Mr. Dasan – Proud moment for Nived Johny , Shyam Pradeep and GEC team
- CEW – ISTAS 2016 : The Community Engagement Workshop is one of the strongest contrivances that have lead to the evolution of some of the ground breaking social initiatives taken up by the Kerala IEEE section, through ideas put forth during this discussion . The platform provides an arena to contribute ideas amongst government bodies, NGO's from civil sector and the engineering circle. This year, the Community Engagement Workshop on SIGHT was held at Hotel Uday Samudra, Kovalam on 20th – 22nd October, 2016 and focused on disruptive technologies, ethics and global development.
    - The Workshop generated new ideas and discussed ways to tackle many problems, that have caused distress in our society in the recent times. The platform proved to be meaningful experience for many who have taken away ideas that will form the foundation for their upcoming activities meant for social benefit. The curtains of the event were drawn with a positive note that every point and every thought has been taken into contemplation, which may turn helpful in the near future
- Maitri Bike Rally
- QuickAT – Assistive Technology Workshop
- Eyes Free Science Camp
- Saastra Vismaya Workshops

Consultant Networks

- IEEE USA Consultants Network Affinity Group Formed and Inaugurated. The consultant's network aims at mentoring budding entrepreneurs in getting started to the business eco system of Kerala.

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B.6 Awards & Recognition Activities

Award constituted by the Section

As IEEE Kerala Section stepped into 2017, we are reminded of the flamboyant milestones we set, back in 2016. Having successfully conducted 1000 plus events in 2016, we had a lot other achievements being attained, all thanks to the vibrant bunch of volunteers and members in our Kerala Community.

During the Annual General Meet of IEEE Kerala Section, held on 14 Jan 2017 at Kochi, the achievements of some of these volunteers/members/organizations were recognized, for their exceptional services to the IEEE Kerala Community.

In 2016, A new Award K P P Nambiar Memorial award was constituted in memory of K P P Nambiar, the doyen of Electronic Industry in Kerala and also the founding member of IEEE Kerala Section.

The Special Award Winners for 2016 are as –

K P P Nambiar Memorial Award : ***Prof. R V G Menon*** contributed significantly towards the Rural Technology Center for Research and Development of affordable technology solutions for the rural masses, in many ways similar to the way Mr. K P P Nambiar had contributed to the electronics industry. Dr Menon's contributions in promoting scientific temper through his involvement in the People's Science Movement is commendable. Prof. Menon has been an inspiring teacher for many engineering students of Kerala and a mentor to practitioners in the domain of technology for humanity.

- **Friend of IEEE Kerala – Public Service - Mr. M. Sivasankar**, an engineer by training and a policy administrator by profession, has served in a variety of positions in the State of Kerala before and after his selection to Indian Administrative Service. He has been well known for his ability to leverage technology for the benefit of the State and its people, and has demonstrated creative and decisive action in senior positions such as the Government Secretary for Power, Electronics and Information Technology.*In recognition of his successful efforts at leveraging technology for the benefit of the Government and the people of Kerala, IEEE Kerala Section is proud to honour him with the "Friend of IEEE" award at the 2017 Annual General Meeting of the Section*

- **Friend of IEEE Kerala – Academy- Prof. K.G.Nair, Director, Centre for Science in Society (C-SiS),** : *In grateful recognition of his support to Section Activities, IEEE Kerala Section is proud to present the Friend of IEEE Award to Dr. KG Nair*

- **Best Teacher Award : Prof. Dr. B. Premlet is an inspiring teacher, a dedicated researcher and a passionate promoter of science .** *In recognition of his outstanding efforts as a dedicated teacher and an inspiring academic, IEEE Kerala Section is proud to award Dr. B Premlet with the Best Teacher*

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award.

Section Outstanding Volunteer Award

- **Mr. Ranjit R Nair -** *For outstanding contribution to the IEEE Kerala Section and the Global IEEE community, particularly in the areas of Member Engagement, Young Professionals, Technical Conferences and Humanitarian Activities.*

Section Best Volunteer Award - Humanitarian

- **Prof V K Damodaran -** *For his work with the underserved communities and for inspiring the new generation of Engineers to take on leadership in humanitarian activities*

Section Best Volunteer Award - Academic

- **Dr. K P Mohandas -** *For providing leadership and setting an example to Students & Young Professionals in starting new industrial ventures and selflessly assisting them in their skill development and related areas.*

Section Best Volunteer Award - Industry

- **Mr.Shahim Baker -** *For providing leadership and setting an example to Students & Young Professionals in starting new industrial ventures and selflessly assisting them in their skill development and related areas*

Section Best Volunteer Award - Young Professional

- **Mr.Shahul Hamid -** *For his continued contributions to the Young Professional AG over the years and his exemplary services to the professional activities of IEEE Kerala Section*

Section Best Event

- **IEEE Job Fair -** *For setting the standards high in the overall quality, conduct, implementation and impact of an event, by providing excelling career opportunities to the students in the Section, which serves as an inspiring foundation for the IEEE community at large*

Section Outstanding Student Volunteer Award

- **Ms. Ansu Joseph -** *For her undying volunteering efforts in the betterment and enhancement of the student activities of IEEE Kochi Hub and IEEE Kerala Section for the year 2016, all the while staying true to the spirit of volunteering and supporting her peers with inspiring leadership and for comprehensive benefit of the student community at large*

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- **Mr.Joseph Joshy -** *For volunteering efforts in taking IEEE Kerala Section student activities forward, in perfect alignment to the mission and vision of IEEE and Kerala Section, all the while exhibiting high level of professional maturity, leadership and enjoying the joy of volunteering.*

Section Best Student Volunteer Award - Humanitarian

- **Mr.Shyam Pradeep & Mr.Nived Johny -** *For their initiative Humanoid, in pursuing and building a Humanitarian Technology Project, focused on providing a technology solution to a targeted segment of the society and adhering true to the mission of "Advancing Technology for Humanity*

Special YP Award

- **Mr. Nitin R S -** *For his continued contributions to the Young Professional AG over the years and his exemplary services to the professional activities of IEEE Kerala Section.*

Section Outstanding Branch Councilor Award

- **Mr.Babu Thomas,** *For inspiring and motivating young minds towards a path of excellence and for the outstanding contributions to Student Activities of IEEE MACE and of IEEE Kerala Section*

Section Best Student Branch Award

- **IEEE SB, Government Engineering College, Trichur,** *For organizing high impact technical and professional activities and setting a new standard in student activities*

MGA Awards

- **IEEE Kerala Section : IEEE MRRC Award - 2016 Outstanding Section membership Recruitment award**
- **Kerala Young Professionals Affinity Group : 2016 IEEE Young Professionals Affinity Group Hall of Fame Award**
- **Shahim Baker : 2016 IEEE MGA Young Professionals Achievement Award [Industry]**

- **Richard E Merwin Scholarship - 7 out of 10 for R10 came to Kerala Section**
  - **Megha Ben,** College of Engineering Trivandrum
  - **Balagopal U,** College of Engineering Trivandrum
  - **Sujay S,** AISET, Kochi
  - **Roshen Roy,** SJCET, Palai
  - **Anand,** FISAT,Kochi
  - **Joys Maria,** CEC,Chengannur

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- **Kevin Joseph,** College of Engineering, Trivandrum

- **2016 Darrel Chong Award**
  - TKM College of Engineering was listed in GOLD Category for WIE Energy Management Drive
  - M A College of Engineering, Kothamagalam was listed in Silver Category for IEEE Job fair

- **CEC Chengannur - Regional Exemplary Student Branch Award for Region 10**
- **MES, Kuttippuram - Outstanding Student Branch Award by IEEE India Council.**

B.7 Communication Activities (Newsletter, Home Page, E-mail etc.)

Newsletter (name and number of issues in the year)

- Kerala Section regularly publishes its newsletter :

  ✧ 1 annual print copy distributed to all members in the section by post

Home Page of the Section

- http://www.ieeekerala.org/ :: updated regularly as required

Other means of contacts with Section members

- Regular e-mail updates and invites to section activities
- Season's Greetings sent by Post
- E-notices
- Section LinkedIn page
- Facebook page:

  ✧ https://www.facebook.com/ieeekerala : Section facebook page
  ✧ https://www.facebook.com/keralagold : Section Young Professionals Page
  ✧ https://www.facebook.com/groups/ieeelink/ : Section Student Activities Page

B.8 Industry Relations

Membership growth and retention

- Value adds to Professional Members of the section were introduced by way of MoUs.
- Formation of a Student Activities Board with members from both Industry and Academia to bridge the gap between what is required in the Industry and the deliverables from Academia.

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Activities for/with industrial members

- All events organized in the section have participation from the Industry.
- Professional Activities Committee works on requirements of young engineers working in the Industry

B.9 Humanitarian Technology Activities

- Mr.Amarnath Visited Nepal on 26th to 28th March'16 as part of the Humanitarian delegation – Project Electrification of Simigaon Beding Na

- IEEE Kerala Section SIGHT meet-up
- CEW – ISTAS 2016
- Maitri Bike Rally
- QuickAT – Assistive Technology Workshop
- Eyes Free Science Camp
- Saastra Vismaya Workshops

B.10 Community Activities

- Social activities (Family day, IEEE day, Engineers Week)
- A Family technical excursion to Liquid Propulsion Centre in Valiyamala on 1st July 2016, by LMAG

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PART C - OTHERS

C.1 Special Events

- IEEE Day Celebrations :

C.2 Relationship with National Societies

Kerala section works closely with the following Societies in Kerala.

- ✧ THE INSTITUTION OF ENGINEERS (INDIA) KERALA STATE CENTRE
- ✧ COMPUTER SOCIETY OF INDIA TRIVANDRUM CHAPTER
- ✧ AERONAUTICAL SOCIETY OF INDIA TRIVANDRUM BRANCH
- ✧ SYSTEMS SOCIETY OF INDIA THIRUVANANTHAPURAM CHAPTER
- ✧ IETE THIRUVANANTHAPURAM LOCAL CENTRE
- ✧ PROJECT MANAGEMENT INSTITUTE – TRIVANDRUM - KERALA CHAPTER
- ✧ INDIAN NATIONAL SOCIETY FOR AEROSPACE AND RELATED MECHANISMS, THIRUVANANTHAPURAM CHAPTER
- ✧ SOCIETY OF AEROSPACE MANUFACTURING ENGINEERS, THIRUVANANTHAPURAM

C3. Collaboration with other IEEE Sections

Support extended to neighbouring Sections

- o Kerala Section Members volunteer to the India Council on various capacities

Joint activities with any other Section

- o ISTAS 2016 - with IEEE SSIT

C.4 Support extended to Sub-sections & Society Chapters within the Section

- Kerala Section has 2 Sub Sections (Kochi Sub Section and Malabar Sub Section) and 10 Society Chapters. All activities organized by the subsection / society chapters are supported both financially and technically by the Section.

C.5 Best Practices of your Section (which you would like to share with other Sections for the benefits of members)

- Active participation of senior members as well as young professionals in the section activities
- Mentoring of new and young professionals
- Participation in academia, R&D, Industry and in Governance
- Online fund transfer for speedy disbursement of section financials

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- Pivotal advisory role in section's senior members
- Life members and senior members involved in section governance
- Enhanced Student network
- Student Representation in Sections decision making process
- Appreciating young professionals with appropriate guidance by life senior members

C.6 Problems anticipated and suggestions for solutions, if any

PART D - GOALS AND PLANS

D.1 Continuation of project/activity in progress and their implementation plans

Purpose	Activities	Description
To inspire school children into Science	***eScientia Exhibit*** , installed at C-SiS campus, CUSAT	Permanent exhibit, fully funded by IEEE HQ, this is modeled on a Space Ship, and engages school children with several experiments. Installed at a unique Science Park for children owned by *Center for Science in Society* in CUSAT campus in Kochi. Shall continue to maintain this.
To provide forums for Researchers and Academicians for interaction and exchange of ideas	**Conference Activities**, with papers being published in IEEEXplore	High quality conferences are organized directly by Section (RAICS, SPICES) and several conferences technically co-sponsored by Section (around 5-6 every year).
To provide continuing education for engineers	Workshops, Seminars, and Technical programs	Organized by the active Society Chapters in Kerala Section – Computer Society, Communication Society, Power & Energy, Industrial Electronics, Industrial Automation, Power Electronics, Signal Processing, Antenna Propagation, Robotics & Automation, Engineering in Medicine & Biology Society
Advise for young entrepreneurs	Promotion of Innovation and Entrepreneurship	IEEE Consultants Network is expected to play a great role in

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	(PIE); IEEE Consultants Network to join hands with Young Professionals	bring together the Engineering Consultants, SMEs, Startups (to Be Defined) in Kerala Section and offer a venue for making available their services to the world. Also it is planned to offer Engineering Consultancy to the Government, Quasi Government and Private institutions.
Technology for humanity	Community Engagement Workshops and Eyes free Science Camp for the Blind & Low Vision Students	Planning to organize a CEW (Community Engagement Workshop) as an independent track of TenSYMP 2017, planned to be held in Kerala this year. . In association with Chakshumati, an NGO working towards the upliftment of the visually impaired, and Young Professionals AG it is proposed to organize an eyes-free-camp, a training session for school students for inculcating confidence in them for pursuing science and engineering for higher studies.
To address the special needs of young professionals	STEP (Student Transition & Elevation Partnership) by Young Professionals	STEP facilitate the transition from student member to young professional, by introducing the opportunities and benefits of IEEE membership during the onset of a career

D.2 Goals and Future Plans

The membership strength under Kerala Section is depicted below:

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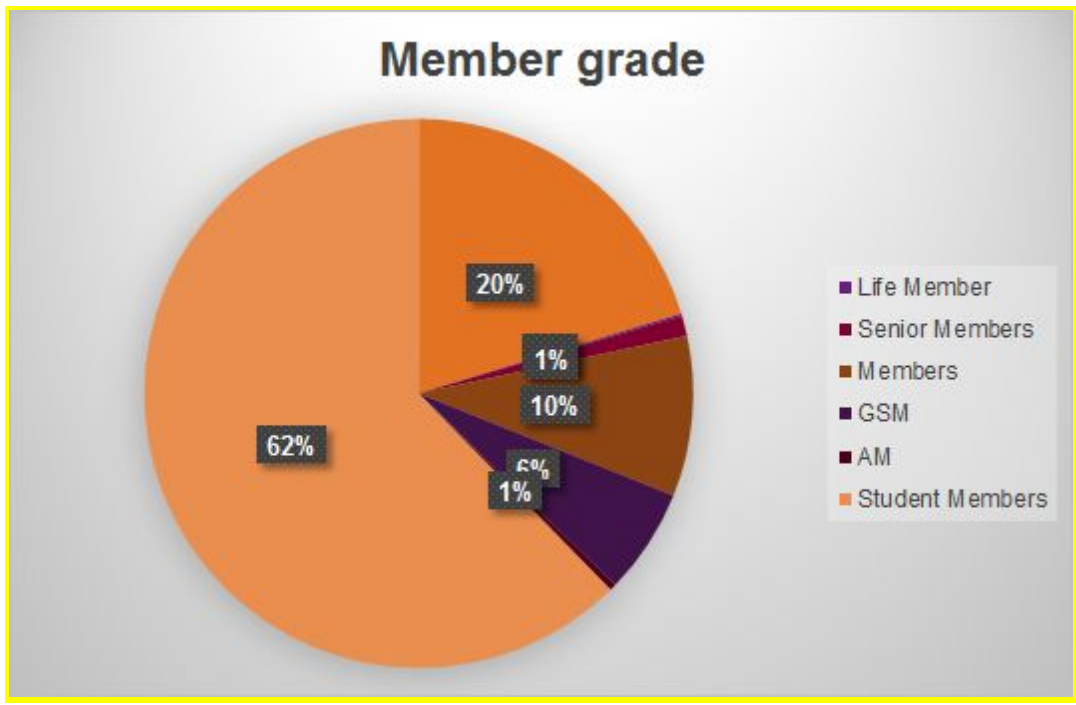

It can be seen that Student members contribute to 78% of the strength and 60% of professional members are Young professionals. Keeping in view to retain and grow membership under this category and to bring in beneficiaries to them, Section has identified a few definite goals and plans to achieve in the year 2017.

1. Bring in more explicit benefits to Student members:
    a. Inter SB activities to be made very vibrant.
    b. Section EXECOM will remain very accessible and responsive to students: increased Student participation.
    c. The Leadership will encourage only ETHICAL VOLUNTEERING, and will do everything to go up in the Value Chain to discourage and unethical practices.
    d. EXECOM representatives will attend events arranged by Students.
    e. SAB will be very effective in guiding.
    f. Try to locate Ex- Members who have gone abroad for higher studies, and their guidance will be made available to prospective students.
2. Professional events to be spread across the state:
    a. Instead of concentrating activities at a few cities, it is planned to have such meetings spread across the state, so that more professional members can get benefitted.
    b. As far as possible to have One man One Post/Responsibility strategy to bring in more volunteers.
3. Industry Academic Interactions:
    a. Focus on Industry involvements
    b. A formal Directory of Electrical and Electronics industries in Kerala.
    c. Work with sister professional associations.

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d. Every meeting : Give opportunities to industries to present about them, however small they may be.
e. Act as a catalyst (or match maker)to improve industry-academia-government R&D organisation interaction: joint proposals

4. Society Activities:
   a. The aim is to bring in more and more members joining IEEE as well as to make sure the current members get benefitted, Societies are requested to be more vibrant and active with technical programs. Only through technical activities, IEEE can become popular among professionals and students.

The vision of IEEE Kerala Section is ***to maximise the benefits of IEEE membership to all the stakeholders and realise "Advancing Technology for Humanity".***

The Section is also looking at few new initiatives as follows:

1. Increase the close collaboration between industry, academia and research institutes and IEEE to act as the bridge.
2. Explore more possibilities and thus opportunities to solve many of the social problems, and IEEE to become the technology provider.
3. To elevate the ***Conference Activities*** to the next level, by having many International Conferences.
4. To bring together Promotion of Innovation (PIE), Consultants Network Affinity Group, Industry Relations and Professional Activities to organize meaningful programs that engage the entrepreneurs, consultants, leaders of the industry and IEEE members, and provide them with unique learning and networking opportunities.
5. To contribute to public policy making by continuously interacting with Government of Kerala initiatives in the technical disciplines of interest to IEEE. This would mean taking part in technical committees, supporting government programs and getting support from Government agencies for various IEEE Programs.

D.3 Any innovative ideas to make IEEE more creative and value added for sustaining the membership retention and recruitment goals.

Creating vibrancy and make others know about such activities will surely interest members not only to join but also the sustenance of IEEE members. Social media is planned to be used as the major tool to reach more people. Entreprenuership and startups mainly fails in India, due to lack of original ideas, lack of mentors. IEEE Kerala Section plans to form a mentor group to help such startups, most of them are non-members.

Some of the key initiatives planned for membership retention and recruitment includes:

1. Enhancing first year IEEE membership experience by conducting targeted programs to the first year members

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2. Conducting periodic surveys to receive member feedback for analyzing the impact of programs and initiatives conducted.

3. Training a specific set of volunteers on IEEE membership benefits and conducting awareness session using this specialized team.