

Annual Magazine of ECE

Volume - 4 (2015-2016)



MAILAM ENGINEERING COLLEGE

MAILAM.

Department of Electronics and Communication
Engineering

NICSCOM

Articles and Reports
Achievements

Research Breakthroughs
Activities



Vision and Mission of the Institution

Vision

To bring forth prosperity through modern technology by means of imparting value based education, innovation and become a world class technical institution.

Mission

- M1. To provide necessary technical skills through excellent standards of quality education, keeping pace with ever changing technologies.
- M2. To bring students together to be trained in leadership skills , engage in activities that promote ethical manners, exhibit social liabilities and inspire a dedication to excellence.
- M3. To develop the spirit of entrepreneurship among the students through Entrepreneurial Awareness Campaign, training and Research and Development etc.

Vision and Mission of the Department

Vision

To bring forth prosperity through modern electronic and communication Technology by imparting value-based education, innovation and become a world-class technical department.

Mission

- M1- Technical Education and research:** To impart technical education to face the challenges of the modern technology and research.
- M2- Leadership quality:** To provide research exposure through industry institute interactions.
- M3- Entrepreneurship:** To inculcate the spirit of innovation and creativity among students to become entrepreneur.

Program Educational Objectives (PEOs)

- PEO 1: EMPLOYABILITY:** To innovate the students to take more than just imagination and to give superior technical education for tomorrow's competitive world.
- PEO 2: HIGHER STUDIES:** To prepare the students with high standard education to associate with global industry needed.
- PEO3: ENTREPRENEURSHIP AND LEADERSHIP:** To train the student with perfection and state-of-the art technology keeping in the changing and demanding trends.
- PEO 4: PROFESSIONAL ETHICS:** To create innovative thinkers in electronics and communication to create new projects to meet the needs of the society.

PROGRAMME OUTCOMES (PO)

- PO1: Engineering knowledge:** Apply knowledge of mathematics, science, engineering fundamentals, and Electronics and communication engineering to the solution of engineering problems.
- PO2 : Problem analysis:** Identify, formulate, review literature and analyze Electronics and communication engineering problems to design, conduct experiments, analyze data and interpret data.
- PO3 : Design /development of solutions: Design** solution for Electronics and communication engineering problems and design system component of processes that meet the desired needs with appropriate consideration for the public health and safety, and the cultural, societal and the environmental considerations.
- PO4 : Conduct investigations of complex problems:** Use research based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in Electronics and communication engineering.
- PO5 : Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to Electronics and communication engineering activities with an understanding of the limitations.
- PO6 : The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to Electronics and communication engineering practice.
- PO7: Environment and sustainability:** Understand the impact of the Electronics and communication engineering solutions in societal and environmental contexts, and demonstrate the knowledge and need for sustainable development.
- PO8 : Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the Electronics and communication engineering practice.
- PO9 : Individual and team work:** Function affectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings in Electronics and communication engineering.
- PO10: Communication:** Communicate effectively on complex engineering activities with the engineering committee and with society at large, such as, being able to comprehend and write affective reports and design documentation, make effective presentations in Electronics and communication engineering.
- PO11: Project Management and finance: Demonstrate** knowledge & understanding of the electronics and communication engineering principles and management principles and

apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments in Electronics and communication engineering.

PO12: Life- long learning: Recognize the need for, and the preparation and ability to engage in independent research and lifelong learning in the broadest contest of technological changes in Electronics and communication engineering.

Chairman's Message



Shri. M. DHANASEKARAN
Chairman and Managing Director

College (MEC) was established in the year 1998 with the aim to impart quality education to the young minds. Technological progress in the last few decades has helped to purge national barriers and create a global marketplace. Our objective is to develop confidence, self-motivation, research and problem-solving skill sets and imbibe value education among our students. We give top priority to discipline and knowledge and the application of the same for societal progress and upliftment.

Our College aims at becoming a front runner in developing the next generation teaching and learning methods and to foster individual excellence and participation of our students in the full range of academic, spiritual, cultural, social and physical activities, and make them socially sensible all-rounders.

I also understand the need for the students to feel at home in the college environment. Both the teaching fraternity and the management team are amiable and affectionate, yet they make the students as disciplined individuals such that success is always on their side. All amenities like Computer Labs with internet facility, library and laboratories, hostels, transports, etc. function in full swing to make the students perform well. Added to this, to encourage sports and extra-curricular activities among the students, we are offering various facilities. MEC is accredited by the well-known corporate giant, TATA Consultancy Services (TCS), so that the students find an easy way to kick-start their career with a big brand like the TCS. In addition to this, our placement cell is doing an excellent job in training the students to get placed in different sectors. Placement is our utmost priority now.

Vice Chairman's Message



Shri. S.V. SUGUMARAN, M.L.A.
Vice Chairman

Mailam Engineering College was established to impart academic excellence by providing a conducive environment for the overall personality development of young ones. Spanning over a decade, the college is covering many a milestone year after year incorporating all modern mechanisms of technological research and application. Within this span of time, it has emerged as one of the leading Engineering Colleges in the Villupuram District. Mailam Engineering College is making every effort to nurture young Engineers with global mindset embedded in Indian roots.

We have a perfect blend of academics and dynamic environment to motivate everyone – the management, faculty and students to deliver their best. We have a very competent and dedicated core faculty team. In addition to their excellent teaching, the faculty members are actively involved in molding the minds of the young engineers.

We encourage students to utilize our high standard of teaching-learning services. Our objective is to create a class of qualified, innovative and dynamic professionals for the Engineering sector, for self-employment and for academic & research institutions of socio-economic importance.

Secretary's Message



Dr.. Narayanasamy Kesavan,
Secretary

I welcome you all to MEC, A Place to Foster Innovative Technologists Since its inception in 1998, MEC has achieved many a remarkable milestone such as Extraordinary Academic Excellence, Outstanding Placement Record, and Stunning Accomplishments in Sports and Co-curricular activities facilitating a holistic learning environment for its students. Learning is both a fulfilled activity and a rewarding experience at MEC. With a wide range of well-qualified and highly experienced team of faculty, our strength lies in transforming average minds into extraordinary engineers with such skills and potential that meets the current industry standards and expectations. Student Chapters and Profession Bodies such as ISA, IEEE, CSI, ISTE, IEI, CII, NSS, IWS etc. have also been formed to encourage the students to interact with the outside technical fraternity to keep them updated about the ongoing technical innovations. As the Secretary of MEC, I welcome you all once again to explore the world of unlimited opportunities and possibilities at MEC.

Principal's Message



Dr. S. SENTHIL
Principal

I am deeply delighted to divulge the dictum, "Students don't care how much we have and know; but all they have to know is how much we care! – for their future goals and aspirations". It is with this faith and firm affirmation that Mailam Engineering College shapes students into smart, successful and challenging professionals in Engineering and Technology, with a clear conviction that service to humanity, especially to the students' community, is service to the creator.

Our students grow by leaps and bounds and so does our institution, because we are sure that the success of our students is the impetus of the institution. Integrating character and creativity, blended with a compelling compassion and commitment towards societal progress, in pupils' personality has been the trump card for our triumph over a decade now. We augment academics with industry-institute interface wherein our students remain ahead and abreast of industrial applications pertaining to their domain.

We leave no stone unturned in incorporating physical and psychological pragmatism with a full time practicing psychologist within the campus with a sound NO TO STRESS secret. With our sporting stars shining at zonal, nation and international levels coupled with a promising placement record ticking over the three-digit figure every year, we are proud to proclaim that at Mailam Engineering College Professionalism is Personified and we streamline success by sheer design and not by coincidence.

HOD Message



**Dr. S. Ganesan, Prof. & Head
ECE**

The objectives for the establishment of the Department are in line with the vision of MEC to become an exemplary institute of nationally acknowledged stature and excellence in teaching, research and scholarship. Furthermore, our academic program and learning environment have been designed to contribute to the quality and intellectual development of the students. We are actively engaged in an exciting and forward-looking program of teaching and research.

The Department of Electronics and Communication Engineering was first started in 1998 with aims to provide our state and our nation, quality graduates whom will contribute to the development of the country in meeting the Vision of MEC. To achieve the vision and goals of the department, it is necessary that all concerned would need to work together and invest in mental and physical energies to uphold the name of the department. The intake of students and number of faculty members in the Department has been steadily increasing. The faculty members are not only providing high quality education to the students, but also are immersed in cutting-edge research which covers almost all disciplinary areas of Electronics and Communication Engineering.

I hope that the information on these pages reflect this vision and will motivate you to learn more about us with a view to participating in our programs – either as a student, a member of staff, or industry collaborator or sponsor. If you have an opportunity to visit us in person, you are assured of a warm welcome. If you have any comments or suggestions, please email us to hodece@mec.ac.in. We appreciate your interest and your input.

SAECE ASSOCIATION INAUGURATION

The Inauguration of Students Association of Electronics and Communication Engineering (SAECE) for the Academic year 2015-2016 was held on 3rd Sep 2015 and a presentation on “Latest Trends in Electronics” was organized by the association on the same day.

Mr. Rajendran, Managing Director of Kaavian Systems, was the chief Guest and delivered the Keynote address.



Dr. S. Senthil, Principal, MEC is honoring Mr. Rajendran, Managing Director during the SAECE Association inaugural cuntion.

FACULTY CONTRIBUTION

Workshop attended by faculty (2015-2016)

Name of the faculty & Designation	Name of the program attended	Organized by	Dates	No. of days
Mrs.R.Gayathri, ASP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Mr.Sundar Mohan, ASP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Mrs.J.Jothi, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Ms.D.Lakshmi, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Ms. Saranya.J, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Mrs. Nishavithri.N, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Ms. Nithya.R, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Mr. Dhanasekaran.K, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Mrs.Srividdhya.P AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Mrs.Anparasi.K AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Mrs.Meena.P, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6
Ms.K.Vanitha, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	6

FDP/Seminar /workshop attended by faculty [2015-2016]

Name of the faculty & Designation	Name of the program attended	Organized by	Dates	No. of days
Mrs.C.Mohanadevi, ASP	FDP on Mobile app development	Mailam Engineering college,Mailam	8.12.2015 - 12.12.2015	5
	National workshop on XML and web services	University college of Engg ,Villupuram	19.8.2015	1
Mrs.J.Suganya,ASP	FDP on VLSI Design	Adhiparasakthi Engg. college,Melmaruvathur	7.12.2015-14.12.2015	7
Mrs.S.Maheswari, ASP	FDP on teaching techniques	Mailam Engineering college,Mailam	7.12.2015 & 8.12.2015	2
Mrs.R.Gayathri, ASP	FDP on Mobile app development	Mailam Engineering college,Mailam	8.12.2015 - 12.12.2015	5

	Hands on training on TMS320C6745 Digital signal processor	Pondicherry Engineering college, Puducherry	27.4.2015 & 28.4.2015	2
Mrs.K.Kavitha, ASP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college, Mailam	9.12.2015-14.12.2015	5
Mr.C.V.Venkatasamy, ASP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college, Mailam	9.12.2015-14.12.2015	5
Ms. C. Jenitha, ASP	FDP on VLSI Design	Adhiparasakthi Engg. college, Melmaruvathur	7.12.2015-14.12.2015	7
Mr. S.Ramesh , ASP	FDP on Mobile app development	Mailam Engineering college, Mailam	8.12.2015 - 12.12.2015	5
	National workshop on XML and webservice	University college of Engg , Villupuram	19.8.2015	1
Mrs.B.Ramathilagam, ASP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college, Mailam	9.12.2015-14.12.2015	5
Mr.Sundar Mohan, ASP	FDP on Mobile app development	Mailam Engineering college, Mailam	8.12.2015 - 12.12.2015	5
	National workshop on XML and webservice	University college of Engg , Villupuram	19.8.2015	1
Ms.C.Vanithasri, ASP	Hands on training on TMS320C6745 Digital signal processor	Pondicherry Engineering college, Puducherry	27.4.2015 & 28.4.2015	2
Mrs.S.Subhashini, ASP	FDP on VLSI Design	Adhiparasakthi Engg. college, Melmaruvathur	7.12.2015-14.5.2015	6
Mrs.J.Jothi, AP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college, Mailam	9.12.2015-14.12.2015	5
Ms.D.Lakshmi, AP	FDP on Mobile app development	Mailam Engineering college, Mailam	8.12.2015 - 12.12.2015	5
	National workshop on XML and webservice	University college of Engg , Villupuram	19.8.2015	1
Mr.G.Sathish kumar, AP	FDP on VLSI Design	Adhiparasakthi Engg. college, Melmaruvathur	7.12.2015-14.12.2015	7
Ms. Saranya.J, AP	FDP on Mobile app development	Mailam Engineering college, Mailam	8.12.2015 - 12.12.2015	5
	National workshop on XML and webservice	University college of Engg , Villupuram	19.8.2015	1
Mrs. Nishavithri.N, AP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college, Mailam	9.12.2015-14.12.2015	5
Ms. Nithya.R, AP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college, Mailam	9.12.2015-14.12.2015	5

Mr. Dhanasekaran.K, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	5
Ms.R.Bharathy, AP	Hands on training on TMS320C6745 Digital signal processor	Pondicherry Engineering college, Puducherry	27.4.2015 &28.4.2015	2
Mr.R.Prasanna, AP	FDP on VLSI Design	Adhiparasakthi Engg. college,Melmaruvathur	7.12.2015-14.12.2015	7
Mr.Balaji.K, AP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	5
	Hands on training on TMS320C6745 Digital signal processor	Pondicherry Engineering college, Puducherry	27.4.2015 &28.4.2015	2
Mrs.Srividdhya.P AP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	5
Ms.Kaviselvi.P AP	FDP on Mobile app development	Mailam Engineering college,Mailam	8.12.2015 - 12.12.2015	5
	National workshop on XML and web services	University college of Engg ,Villupuram	19.8.2015	1
Mrs.Anparasi.K AP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	5
Ms.Dheepa.B AP	FDP on teaching techniques	Mailam Engineering college,Mailam	7.12.2015 & 8.12.2015	2
Mrs.Meena.P, AP	Embedded –Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	5
	Hands on training on TMS320C6745 Digital signal processor	Pondicherry Engineering college, Puducherry	27.4.2015 &28.4.2015	2
Mr. S. Karthikeyan, AP	FDP on teaching techniques	Mailam Engineering college,Mailam	7.12.2015 & 8.12.2015	2
Ms.K.Vanitha, AP	FDP on Embedded – Raspberry PI & PIC	Mailam Engineering college,Mailam	9.12.2015-14.12.2015	5
	FDP on teaching techniques	Mailam Engineering college,Mailam	7.12.2015 & 8.12.2015	2

Students Activities

- ❖ Selvan. K.Dilipan and Selvan.K.Anand of II Yr won the First Prize with a cash award of Rs1000 in the event, “Code Debugging Tattvika prajja” held at Shri Krishna College of Engineering and Technology on 28 Sep 2015.
- ❖ Selvan N.Arunkumar, Selvan.T.Jayachandiran and Selvan.K.Dilipan of II Yr won the second Prize with a cash award of Rs 500 in the Non Technical event “Tattvika prajja” held at Shri Krishna College of Engineering and Technology on 28 Sep 2015.
- ❖ Selvan. R.Vigneshraja of IV Yr and Selvan.D.Ragupathy of II Yr won the First Prize with cash award of Rs1000 for their Creative short Film at AKT college of Engineering and technology on 23 Mar 2016.
- ❖ Selvi. N.Ranjitha and Selvi. K.Rajalakshmi of III Yr won the Second Prize with a cash award of Rs.500 in the event Cine Jam in EXIMIUS2K16 organized by Sri Ganesh College of Engineering and Technology on 10 Mar 2016.
- ❖ Selvi. M.Sasirekha and Selvi. B.Shreevidhya of III Yr won the First Prize with a cash award of Rs.750 in the event Technical Components Identification in National Level Technical Symposium organized by Sri Krishna college of Engineering on 10 & 11 Feb 2016.
- ❖ Selvi. N.Ranjitha and Selvi. K.Rajalakshmi of III Yr presented a paper and won the third prize with a cash award of Rs 500 in EXIMIUS2K16 organized by Sri Ganesh College of Engineering and Technology on 10 Mar 2016.
- ❖ Selvi. K.Subashree and Selvi. K.Sumithra of III Yr presented a paper titled “Solar Power Consumption” and won the second prize with a cash award of Rs.500 in National Level Technical Symposium organized by Jawahar Engineering College, Chennai, on 30 Sep 2015.
- ❖ Selvan. A.Dhinesh Kumar, Selvan. V.Vignesh and Selvan.S.Venkatesh of III Yr won the second prize in the event Engineer's Eye in EXIMIUS2K16 organized by Sri Ganesh College of Engineering and Technology on 10 Mar 2016.
- ❖ Selvi. S.Dharani and Selvan. S.Boopathi of II Yr participated in a workshop on raspberry pi organized by University College of Engineering, Villupuram on 23 & 24 Mar 2015.
- ❖ Selvan. H.Amanullah, and Selvan. M.Gobinath, presented a paper titled “GPRS Using Ignition System” in national conference NCWCSP'16 held at Arunai Engineering college, Tiruvannamalai.

Students Participation in the Academic Year 2015-2016 (Outside the State)

S.No	Name of the Student	Year /Sec	Name of the event	Date of event	Name of organizing Institution	Position/ Prize, if any received
1	L.Nand hakumar	III/B	MITILENCE 2016 National level Technical Symposium	12.2.16 & 13.2.16	Manakula Vinayagar Institute of Technology, Puducherry.	Participation
2	M.Sasirekha	III/C	ELINT-2K16- Paper presentation	10.2.16 & 11.02.16	Sri Krishna College of Engineering, Puducherry.	Participation

Students Participation in the Academic Year 2015-2016 (Within the State)

S. No	Name of the Student	Year / Sec	Name of the event	Date of event	Name of organizing Institution	Position/ Prize, if any received
1	R.Loganathan	II/B	GASOLINA 2K16(Worshop)	26-02-16 to 28-02-16	Anna University, Chennai	Participation
2	D.Ragupathi	II/B	Workshop	7-02-2016	International Science and Research Organization	Participation
3	C.Sakthipriya	III/C	Paper Presentation	23-03-16 to 24-03-2016	University College of Engineering, Villupuram	Participation
4	R.Geetha	III/A	Workshop	29-08-15	SSN College of Engineering	Participation
5	C.Shakthi priya	III/C	Workshop	23-03-16 to 24-03-2016	University College of Engineering, Villupuram	Participation
6	V.Savithri	II/C	ORBITCE 2K15 (Workshop)	31.08.15	SSN College of Engineering, Chennai	Participation
7	K.Subashree	II/C	ORBITCE 2K15 (Workshop)	31.08.15	SSN College of Engineering, Chennai	Participation
8	C.Suyambu	II/C	ORBITCE 2K15 (Workshop)	31.08.15	SSN College of Engineering, Chennai	Participation

9	C.Shakthi priya	III/C	Workshop	23.03.16 to 24.03.16	University College of Engineering, Villupuram	Participation
10	B.Sivasankari	III/C	Workshop	05.03.16	T.J.S. Engineering College, Chennai	Participation
11	B.Sivasankari	III/C	ORBITCE 2K15 (Workshop)	3.08.15	SSN College of Engineering, Chennai	Participation
12	Shalini	III/C	Workshop	July 2015	RF Tronics, Chennai	Participation
13	R.P.Saranyadevi	II/C	Workshop	29.08.15	SSN College of Engineering, Chennai	Participation
14	S.Sathesh kumar	II/C	National Technical Level Workshop	16.07.15 to 17.07.15	Jeppiaar Engineering College, Chennai	Participation
15	S.Shakeela devi	II/C	National Technical Level Workshop	16.07.15 to 17.07.15	Jeppiaar Engineering College, Chennai	Participation
16	M.A.Shanthini	II/C	ORBITCE 2K15 (Workshop)	31.08.15	SSN College of Engineering, Chennai	Participation
17	J.Janani	II/C	Workshop	29.08.15	SSN College of Engineering, Chennai	Participation
18	S.Gunapriya	II/A	Workshop	29-08-15	SSN College of Engineering, Chennai	Participation
19	V.Dhivya Dharshini	II/A	Workshop	29-08-15	SSN College of Engineering, Chennai	Participation
20	M.Divya	II/A	Workshop	29-08-15	SSN College of Engineering, Chennai	Participation
21	J.Gokula Suganthi	II/A	Workshop	29-08-15	SSN College of Engineering, Chennai	Participation
22	S.Alamelu	II/A	Workshop	29-08-15	SSN College of Engineering, Chennai	Participation
23	J.Mugilarasi	II/B	Workshop	7-02-16	International Science and Research organisation	Participation
24	K.Suganya	II/C	Workshop	7-02-16	International Science and	Participation

					Research organisation	
25	R.Loganathan	II/B	GASOLINA 2K16(Math Modelling)	26-02-16 to 28-02-16	Anna University, Chennai	Participation
26	N.Zeenath Fathima	II/C	International Conference on Breakthrough in Engineering, Science & Technology	25-03-16	International Science and Research organisation	Participation
27	N.Zeenath Fathima	II/C	Workshop	25-03-16	Technos Solution Pvt Ltd, Chennai	Participation
28	E.Sowmiya	II/C	Workshop	25-03-16	Technos Solution Pvt Ltd, Chennai	Participation
29	E.Sowmiya	II/C	Workshop	July 2015	RF Tronics, Chennai	Participation
30	E.Sowmiya	II/C	Paper Presentation	30-09-15	SMK Forma Institute of Technology	Participation
31	D.Tamilselvi	II/C	ELECTROFOCUS'16(Paper Presentation)	26-03-16	Madras Institute of Technology, Chennai	Participation
32	P.Swathi	II/C	Workshop	25-03-16	Technos Solution Pvt Ltd, Chennai	Participation
33	T.Vijayasanthi	II/C	Workshop	7-02-16	International Science and Research organization	Participation
34	T.Vijayasanthi	II/C	International Conference on Break through in Engineering, Science & Technology	25-03-16	Institute of Engineering Research	Participation
35	D.Manibharathi	II/B	Workshop	7-02-16	International Science and Research organisation	Participation
36	G.Rajalakshmi	II/C	ORBITCE 2K15 (Workshop)	31-08-15	SSN College of Engineering, Chennai	Participation
37	G.Rajalakshmi	II/C	National Level Technical Symposium (Quiz)	26-03-16	Sree Sastha College of Engineering, Chennai	Participation

38	G.Rajalakshmi	II/C	National Level Technical Symposium (Light Fidelity)	26-03-16	Sree Sastha College of Engineering, Chennai	Participation
39	E.Suganthi	II/C	National Level Technical Symposium (Quiz)	26-03-16	Sree Sastha College of Engineering, Chennai	Participation
40	E.Suganthi	II/C	Paper Presentation	11-09-2015	University College of Engineering in Tindivanam	Participation
41	Z.Neenath Fathima	II/C	Workshop	7-02-16	International Science and Research organisation	Participation
42	K.Vijaya shankar	II/B	Workshop in Raspberry pi	23-03-16	University College of Engineering, Villupuram	Participation
43	K.Vijaya shankar	II/B	Workshop on Recent Trends in Wireless Communication	23-03-16	University College of Engineering, Villupuram	Participation
44	M.Abi	II/A	Workshop	29-08-15	SSN College of Engineering, Chennai	Participation
45	K.Dhivya dharshini	II/A	Workshop	29-08-15	SSN College of Engineering, Chennai	Participation
46	K.Subashree	III/C	National Level Technical Symposium (PRAESTANTIA' 15)	31-07-15	Sairam Institute of Technology, Chennai	Participation
47	C.Suyambu	III/C	Workshop	05-03-16	T.J.S. Engineering College, Chennai	Participation
48	K.Surya	III/C	National Level Project Expo	28-03-16	IFET College of Engineering, Villupuram	Participation
49	G.Sathiya	III/C	Embedded System Design	30.05.15	Accel IT Academy, Chennai	Participation
50	K.Surya	III/C	Embedded System Design	30.05.15	Accel IT Academy, Chennai	Participation
51	T.Vijayasanthi	II/C	Project Exhibition	27-11-15	Jawarhalal Nehru Science and	Participation

					Technology, Ulundurpet	
52	N.Zeenath fathima	II/C	Project Exhibition	27-11-15	Jawarhalal Nehru Science and Technology, Ulundurpet	Participation
53	C.Siranjeevi	II/C	Project Exhibition	27-11-15	Jawarhalal Nehru Science and Technology, Ulundurpet	Participation
54	B.Sivasankari	III/C	Project Exhibition	27-11-15	Jawarhalal Nehru Science and Technology, Ulundurpet	Participation
55	L.Nand hakumar	III/B	Project Expo 2K16	17.3.16	University College of Engg, Ariyalur	Participation

Prize Winner in the Academic Year 2015-2016 (Within the State)

S.No	Name of the Student	Year /Sec	Name of the event	Date of event	Name of organizing Institution	Position/ Prize, if any received
1	H. Meer Mohamed Ali	II/V	ELCOMEET2015	27.02.15	V.R.S College of Engineering and Technology, Villupuram.	III Prize
2	K. Subashree	II/C	SAMING2K15	30.09.15	Jawahar Engineering College, Chennai.	II Prize
3	L.Nand ha Kumar	II/B	CHANNEL 2K16	09.3.16	Adhiparasakthi Engineering College, Melmaruvathur	II Prize/
4	L.Nand ha Kumar	II/C	TECHFINIX 16	29.9.16 & 30.9.16	Paavai Engg College, Namakkal	III Prize

Prize Winner in the Academic Year 2015-2016 (Outside the State)

S.No	Name of the Student	Year /Sec	Name of the event	Date of event	Name of organizing Institution	Position/ Prize, if any received
1	K.S.Saranya	III/C	REVELATION 2K14 National Level Technical Symposium	3.9.14 4.9.14	Puducherry. Engg College, Puducherry.	I Prize
2	T.Inmozhi	III/A	REVELATION 2K14 National Level Technical Symposium	3.9.14 4.9.14	Puducherry. Engg College, Puducherry.	II Prize
3	K.Dhilipan	II/A	National Level Technical Symposium	28.08.15	Krishna College of Engineering and Technology, Puducherry.	II Prize

Student Journal Publication 2015-2016

S.No	Name of the Student	Year	Title / Topic	International / National Journal	Name of the Journal ISSN Number	Year of Publication
1	K. Keerthana R. Leela M. Maharani V. Prathiba	III	Aircraft Alive Passengers and Location Identification by Pointing Water soil through GPS & GSM	International	ISSN : 0976-1353	2015-16
2	L. Nandha Kumar V. Pushpa Raj P. Prem Kumar	II	Android based Organic Agriculture	International	ISSN: 2394-3777	2015-16

Thanjavur Periya Kovil



Thanjavur Periya kovil (also known as Brihadeeswarar temple) is a Hindu temple dedicated to Lord Shiva located in Thanjavur in the Indian state of TamilNadu. It is also known as RajaRajeswara Temple Rajarajeswaram and Brihadeswara Temple. It is one of the largest temples in India and is an example of Tamil architecture during Chola period. Built by Raja Raja Chola I and completed in 1010CE, the turned 1000 years old in 2010. The architect and engineer of the temple, kunjara Mallan Raja Raja Perumthachan is revered today as a father figure to all craftsmen in his homeland of present-day Central kerala. The temple is part of the UNESCO world Heritage Site known as the “Great Living Chola Temples”, with the other two being the Brihadesswarar Temple, Gangaikonda Cholapuram and Airavatesvara temple.

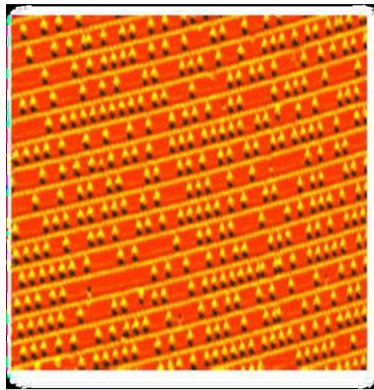
The temple stands amidst fortified walls that were probably added in the 16th century. The vimanam (temple tower) is 198 ft (60m) high and is one of the tallest in the world. The kumbam (the apex or the bulbous structure on the top) weighs around 80tons. There is a big statue of Nandi (scared bull), carved out of a single rock measuring about 16ft (4.9m) long and 13ft (4.0m) high at the entrance. The entire temple structure is made out of granite, the nearest sources of which are about 60km to the west of temple. The temple is one of the most visited tourist attractions in Tamil Nadu.

The solid base of the temple raises about 5 metres (16 feet), above which stone deities and representatives of Shiva dance. The big Nandi (bull), weighing about 20 tonnes is made of a single stone and is about 2m in height, 6 m in length and 2.5m in width.

T. Inmozhi, IV A

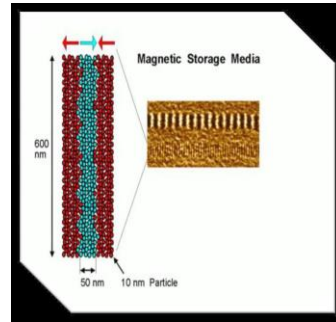
Silicon Memory

The limits of pushing storage density to the atomic scale are explored with a memory that stores a bit by the presence or absence of one silicon atom. These atoms are positioned at lattice sites along self-assembled tracks with a pitch of five atom rows. The memory can be initialized and reformatted by controlled deposition of silicon. The writing process involves the transfer of Si atoms to the tip of a scanning tunneling microscope.



The constraints on speed and reliability are compared with data storage in magnetic hard disks and DNA. The physicist Richard Feynman estimated that —all of the information that man has carefully accumulated in all the books in the world, can be written in a cube of material one two-hundredth of an inch wide||. Thereby, he uses a cube of $5 \times 5 \times 5 = 125$ atoms to store one bit, which is comparable to the 32 atoms that store one bit in DNA. Such a simple, back-of-the-envelope calculation gave a first glimpse into how much room there is for improving the density of stored data when going down to the atomic level.

A bit is encoded by the presence or absence of a Si atom inside a unit cell of $5 \times 4 = 20$ atoms. The remaining 19 atoms are required to prevent adjacent bits from interacting with each other, which is verified by measuring the autocorrelation. A specialty of the structure in figure 1 is the array of self-assembled tracks with a pitch of five atom rows that supports the extra atoms. Such regular tracks are reminiscent of a conventional CDROM. However, the scale is shrunk from μm to nm. Although the memory created now is in two dimensions rather than the three-dimensional cube envisioned by Feynman, it provides a storage density a million times greater than a CD-ROM, today's conventional means of storing data.

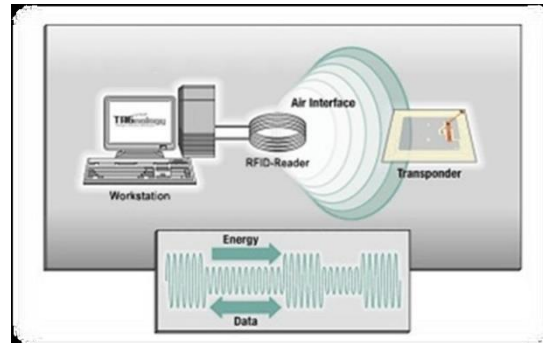


The highest commercial storage density is achieved with magnetic hard disks, whose aerial density has increased by seven orders of magnitude since their invention in Feynman's days. Currently, the storage density is approaching 100 Gigabits per square inch in commercial hard disks. Typical storage media consist of a combination of several metals, which segregate into magnetic particles embedded into a non-magnetic matrix that keeps them magnetically independent. A strip of particles with parallel magnetic orientation makes up a bit, as color coded red and turquoise in the figure below. (The dimensions keep getting smaller.) When such a bit is imaged by a magnetic force microscope the collection of these particles shows up as white or dark line, depending on the magnetic orientation.

The density limit in magnetic data storage is largely determined by the in homogeneity of the magnetic particles that make up the storage medium. Overcoming variations in particle size, shape, spacing, and magnetic switching currently requires the use of about 100 particles per bit. The error limits are extremely stringent (less than one error in 10^8 read/write cycles, which can be reduced further to one error in 10^{12} cycles by error-correcting codes). The individual particles in today's media approach the super paramagnetic limit already (about 10 nm), where thermal fluctuations flip the magnetization.

R. Abarna, III A

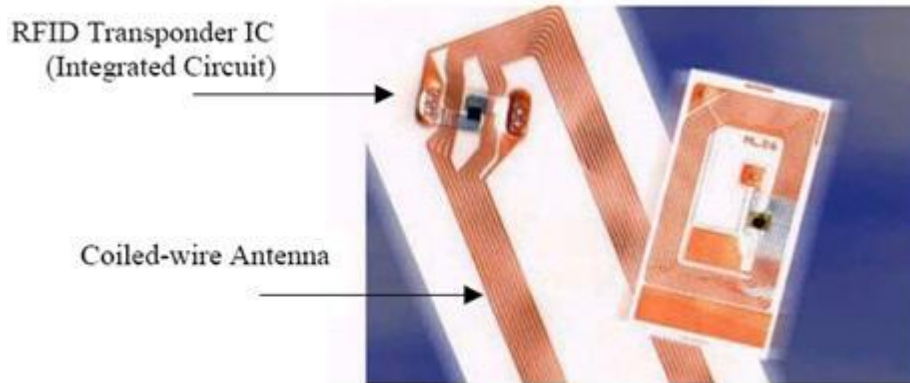
Electronic Toll Collection



Electronic Toll Collection is a generally mature technology that allows for electronic payment of highway tolls. It takes advantage of vehicle-to-roadside communication technologies to perform an electronic monetary transaction between a vehicle passing through a toll station and the toll agency. This project is implemented using the innovative technology of Radio Frequency Identification (RFID). Radio-frequency identification (RFID) is a technology that uses communication via electromagnetic waves to exchange data between a terminal and an electronic tag attached to an object, for the purpose of identification and tracking.

An RFID system consists of a reader and transponders. Transponders (derived from the words "transmitter" and "responder") are attached to the items to be identified. They are often called "tags". Radio Frequency Identification (RFID) involves contact less reading and writing of data into an RFID tag's non-volatile memory through an RF signal. The reader emits an RF signal and data is exchanged when the tag comes in proximity to the reader signal. The RFID tag derives its power from the RF reader signal and does not require a battery or external power source.

Each vehicle will be provided with an RFID tag. This transponder (tag) stores the unique ID of the vehicle and related information. When interrogated by a reader, it responds with that data over a radio frequency link. The readers are fixed in the toll gates. So when the vehicle comes near the reader, the data from the tags can be easily read by the readers. This data is passed to the computer and thus the cash can be deducted from the user's account



RFID is a wireless link to uniquely identify tags. These systems communicate via radio signals that carry data either unidirectional or bidirectional. The tag is energized by a time-varying electromagnetic radio frequency (RF) wave that is transmitted by the reader. This RF signal is called carrier signal. When tag is energized the information stored in the tag is transmitted back to the reader. This is often called backscattering. By detecting the backscattering signal, the information stored in the tag can be fully identified. RFID systems are comprised of two main components RF reader and RF Tag

RF READER

The RFID tag, or transponder, is located on the object to be identified and is the data carrier in the RFID system. Typical transponders (transmitters/responders) consist of a microchip that stores data and a coupling element, such as a coiled antenna, used to communicate via radio frequency communication. Transponders may be either active or passive.

An intriguing aspect of atomic scale memory is that memory density is comparable to the way nature stores data in DNA molecules. The Wisconsin atomic-scale silicon memory uses 20 atoms to store one bit of information, including the space around the single atom bits. DNA uses 32 atoms to store information in one half of the chemical base pair that is the fundamental unit that makes up genetic information. Compared to conventional storage media, both DNA and the silicon surface excel by their storage density. Obviously there are some drawbacks. The memory was constructed and manipulated in a vacuum, and that a scanning tunneling microscope is needed to write memory which makes the writing process very time consuming.

G .Sivasankaran, III C

Poems

*Because you are my friend
Because you are my friend,
my life is enriched in a myriad of ways.
Like a cool breeze on a sweltering day,
like a ray of sunshine parting glowering clouds,
you lift me up.
In good times, we soar,
like weightless balloons
over neon rainbows.
In bad times, you are soothing balm
for my pummeled soul.
I learn so much from you;
you help me see old things in new ways.
I wonder if you are aware
of the bright seeds you are sowing in me.
I'm a better person for knowing you,
so that everyone I interact with
is touched by your good effect on me.
You relax me, refresh me, renew me.
Your bounteous heart envelops me
in joy and love and peace.
May your life be filled
with dazzling blessings,
just as I am blessed
by being your friend.*

K. Veeramanikandan, 2020 ©

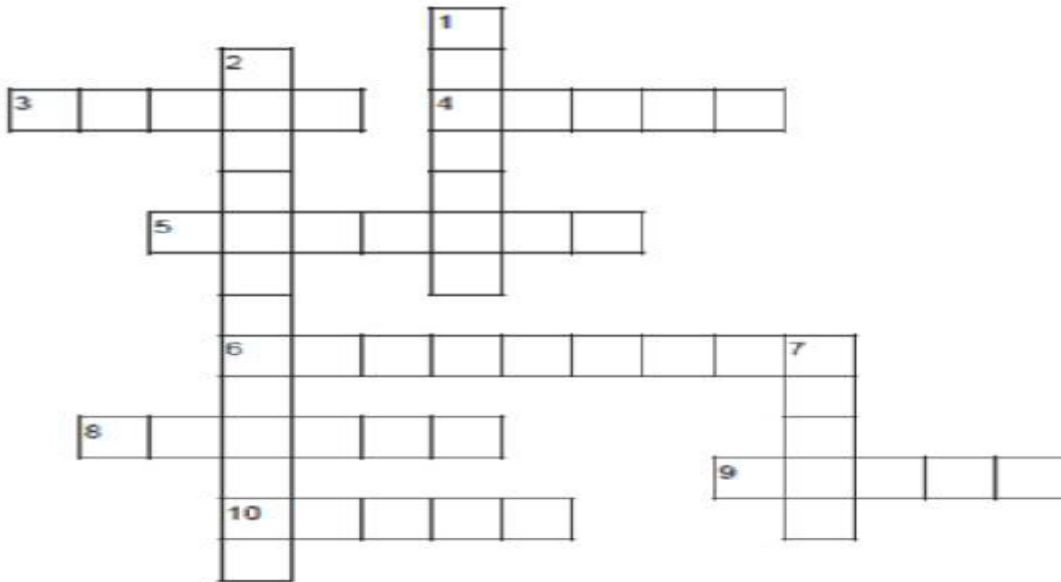
Cross word Puzzle

Across

3. There is a magnetic _____ around a magnet
4. When LIKE poles come together they _____
5. When OPPOSITE poles come together they _____
6. An ability to attract or charm _____
8. When an object becomes magnetized and exerts magnetic force it is called a _____
9. The earth has a south and _____ pole
10. The _____ is a giant magnet

Down

1. He invented the first electric motor (Last name)
2. _____ is a magnet that work electricity and can be switched on or off
7. A small compact engine.



Chief Editors

Dr. S. Ganesan, Prof & Head

Department of ECE
Mailam Engineering College,
Mailam

Associate Editors

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Mrs. C. Mohanadevi, Asso. Professor

Department of ECE

Contact Us



Mailam Engineering College

Department of Electronics and Communication Engineering

Mailam(PO), Tindivanam TK,

Villupuram Dt- Pin-604 304

PH-04147-241515, 241551, Fax: 04147- 241552

Website: www.mailamengg.com