



MAILAM ENGINEERING COLLEGE

MAILAM.

**Department of Electronics and Communication
Engineering**



Annual Magazine of ECE

Volume 6 (2017-2018)

NICSCOM

- **Articles and Reports**
- **Research Breakthroughs**
- **Achievements**
- **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



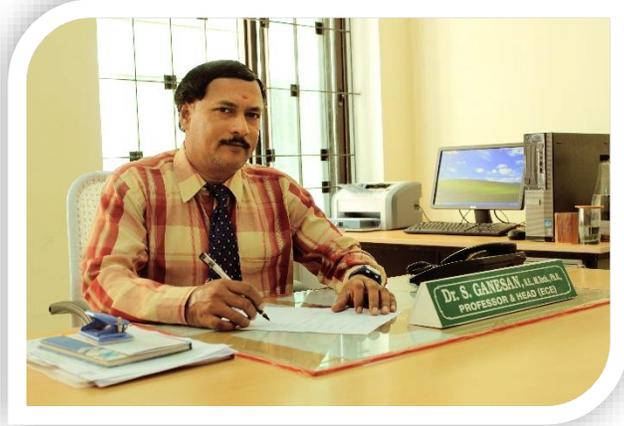
Dr. S. SENTHIL
Principal

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.

FACULTY CONTRIBUTION

Journals with ISSN and Conference Publications (2017-2018)

S.No.	Author	Title/Topic	Name of the Journal& ISSN Number	International / National Journal	Year of Publication
1	Dr.S.Ganesan	A lossless data hiding Algorithm with contrast Enhancement for high dynamic range images	International Conference on Futuristic Trends in Electronics Engineering ICFTEE	International	2017– 2018
2		Highly secure image encryption using MSB with Canny edge detection	International Conference on Futuristic Trends in Electronics Engineering ICFTEE	International	2017– 2018
1	Dr.K.Baskaran	Analysis and segmentation of the bone cancer MRI image based on neural networks approach model	IOSRJVSP	International	2017– 2018
2		Feature fusion for FDG –PET and MRI for automated extra skeletal bone sarcoma classification	Material study	International	2017– 2018
1	Dr.A.Rajagopal	Performance Analysis for Efficient Cluster Head Selection in Wireless Sensor Network Using RBFO and Hybrid BFO-BSO	International Journal of Wireless Communications and Mobile Computing	International	2017– 2018
1	Mr.C.V.Venkatasamy	Underwater Depth Estimation and	International Conference on Futuristic	International	2017– 2018

		Image Restoration Based on Single Images	Trends in Electronics Engineering ICFTEE		
1	Mrs.B.Ramathilagam	Hybrid Intelligent Water Drop and Ant Colony Optimization for Solving Multipath Data Transmission in WSN	International Conference on Futuristic Trends in Electronics Engineering ICFTEE	International	2017– 2018
1	Mrs.K.Kavitha	Restoring Super Resolution Images using Dictionary Learning and Non local Means Algorithm	International Conference on Futuristic Trends in Electronics Engineering ICFTEE	International	2017– 2018
1	Mr.S.Ramesh	Multi- hop Information Based on Abnormal Nodes Detection in WSN	International Conference on Futuristic Trends in Electronics Engineering ICFTEE	International	2017– 2018
1	Mrs.S.Subhashini	Cluster formation using grey wolf optimization in wireless sensor network	International Conference on Futuristic Trends in Electronics Engineering ICFTEE	International	2017– 2018
1	Mrs.N.Nishavithri	Authenticated Automatic Ration Shop using RFID and GSM	International Journal for Research in Applied Science & Engineering Technology ISSN 2321-9653	International	2017– 2018
1	Mr.K.Dhanasekaran	A Computational Approach of Highly Secure Hash Algorithm for Color Image	International Journal of Engineering & Technology	International	2017– 2018

		Steganography using Edge Detection and Honey Encryption Algorithm			
1	Mr.K.Balaji	Multi Smart Toll Vehicle System	International Conference on Innovative Mechanisms for Industry Applications	International	2017 – 2018
1	Mr.K.Dhanasekaran	Multi Smart Toll Vehicle System	International Conference on Innovative Mechanisms for Industry Applications	International	2017 – 2018
1	Mr.R.Prasanna	Multi Smart Toll Vehicle System	International Conference on Innovative Mechanisms for Industry Applications	International	2017 – 2018
1	Ms.R.Nithya	Ground simulation method for arbitrary distance optical transmission of a free space laser communication system	International Conference on Communication and Technology	International	2017 – 2018
1	Mrs.P.Meena	Ground simulation method for arbitrary distance optical transmission of a free space laser communication system	International Conference on Communication and Technology	International	2017 – 2018
1	Ms.P.Kaviselvi	Ground simulation method for arbitrary distance optical	International Conference on Communication and Technology	International	2017 – 2018

		transmission of a free space laser communication system			
1	Ms.B.Dheepa	Ground simulation method for arbitrary distance optical transmission of a free space laser communication system	International Conference on Communication and Technology	International	2017 – 2018

FDP/Seminar /workshop attended by faculty [2016-2017]

Name of the faculty & Designation	Name of the program attended	Organized by	Dates	No. of days
Mrs.J.Suganya,ASP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mrs.S. Maheswari,ASP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mrs.K.Kavitha,ASP	Workshop on Tanner tools	SKP Engg college, Thiruvannamalai	1.11.2017& 2.11.2017	2
Mr. C. V. Venkatasamy,ASP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Ms. C. Jenitha,ASP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mr. S.Ramesh ,ASP	Professional development workshop on Teach	Mailam Engineering college,Mailam	24.6.2017-26.6.2017	3
Mrs. B.Ramathilagam,ASP	Professional development workshop on Teach	Mailam Engineering college,Mailam	24.6.2017-26.6.2017	3
Ms.C.Vanithasri,ASP	Professional development workshop on Teach	Mailam Engineering college,Mailam	24.6.2017-26.6.2017	3
Mrs.S.Subhashini,ASP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Ms. D. Lakshmi,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mr.M.Rajaparthiban,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mrs. N.Nishavithri,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6

Ms. R.Nithya,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mr. K.Dhanasekaran,AP	Workshop on Tanner tools	SKP Engg college, Thiruvannamalai	1.11.2017&2.11.2017	2
Mr.L.Prakash,AP	Workshop on Tanner tools	SKP Engg college, Thiruvannamalai	1.11.2017&2.11.2017	2
Mr.R.Prasanna,AP	Workshop on Tanner tools	SKP Engg college, Thiruvannamalai	1.11.2017&2.11.2017	2
Mr.K.Balaji,AP	Workshop on Tanner tools	SKP Engg college, Thiruvannamalai	1.11.2017&2.11.2017	2
Mrs.P.Srividdhya,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Ms.P.Kaviselvi,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mr.M.Mohamedaurang, AP	Workshop on Tanner tools	SKP Engg college, Thiruvannamalai	1.11.2017&2.11.2017	2
Mr.R.Alaguvel,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mrs.V.Karthika,AP	Workshop on Tanner tools	SKP Engg college, Thiruvannamalai	1.11.2017&2.11.2017	2
Mrs.K.Anparasi,AP	Professional development workshop on Teach	Mailam Engineering college,Mailam	24.6.2017-26.6.2017	3
Mr.K.Vinoth,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mrs.B.Dheepa,AP	Professional development workshop on Teach	Mailam Engineering college,Mailam	24.6.2017-26.6.2017	3
Mrs.P.Meena,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Ms.P.Malarvizhi,AP	Workshop on Tanner tools	SKP Engg college, Thiruvannamalai	1.11.2017&2.11.2017	2
Mr.A.Kumar,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Ms.G.Gajalakshmi,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Ms.J.Kailvezhi,AP	Professional development workshop on Teach	Mailam Engineering college,Mailam	24.6.2017-26.6.2017	3
Ms.J.Ezhilmani,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Ms.I.Jayapriya,AP	Workshop on Tanner tools	SKP Engg college, Thiruvannamalai	1.11.2017&2.11.2017	2
Mrs.R.Madhumathi,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Mr.B.Jayakumar,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6

Ms.V.Valarmathi,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Ms.N.Dhivya,AP	FDP on Automation on Robotics	Mailam Engineering college,Mailam	13.11.2017-18.11.2017	6
Ms.P.Rama,AP	Professional development workshop on Teach	Mailam Engineering college,Mailam	24.6.2017-26.6.2017	3

Students Activities

- St. St.Peter's College of Engineering, Chennai had organized a National Level Technical Symposium, "**Inspiro Ecclesia'17**" on 8th Feb. 2017. The following students took part in various events and got fabulous prizes.
- Selvi. A.Manjula and Selvi. A.Malar of III Yr have won 1st prize for their paper entitled "**IOT Based Smart Agriculture**" in the Symposium "**Akni Vyuhaa, 2K18**" conducted by CK College of Engineering and Technology, Cuddalore on 8th Feb.2017.
- Selvi. S.Susithra and Selvi.B.Vedhavalli of III Yr have won II prize in '**Code Debugging in C**' at "**MITILENCE 2017**" conducted by Manakula Vinayagar Institute of Technology, Puducherry on 10th and 11th Feb. 2017.
- Selvi.M.Harini and Selvi.B.Jayasri of IV Yr have won 1st prize for their paper entitled "**Ventilating system for amitotic people**" at "**FUERZA '17**" conducted by Panimalar Engineering College, Chennai on 11th Feb. 2017.
- Selvi. R.Aruna and Selvi. U.Gayatiri of III Yr. have won II prize for their paper entitled "**IOT from Farm to Fork**" at "**TEKONICS.2K18**" conducted by Alpha Engineering College, Pondicherry on 12th Feb.2018.
- Selvil. U.Gayathiri of III Yr has won II prize for her project entitled "**Hedge the Aquatic and Topple Skedaddle Cyborg**" at "**TECBLAZ.2K17**" conducted by SRM Engineering College, Chennai on 12th Feb.2018.
- The University College of Engineering, Tindivanam had organized a National Level Technical Symposium "**GRIDZCOM 2K18**" on Feb. 2018. The students mentioned below took part in many events and won prizes.
- Selvan.K.Dhilipan of IV Yr has won 1st Prize for his Paper entitled "**Versatile fuel tank tracking mechanism**" at "**AGNIMITHRA**" conducted by University College of Engineering, Villupuram on 9th and 10th Mar. 2017.and Selvi.J.Mugilarasi and Selvi.B.Jayasri of IV Yr have won 1st prize for their paper entitled "**Ventilating System For Amitotic People**" in the same event.
- Selvan.K.Anand Sivakumar, Selvan.R.Chandru, Selvan.R.Hariharan and Selvan A.Arunpandiyam of IV Yr have won II prize for their project entitled "**Smart Ticketing and Multifunction Railway Crossing System**" at "**CAFACE**" conducted by K.S. Rangasamy College of Engineering, Tiruchengode on 23rd Feb. 2017.

- Selvi.K.Suganya and E.Suganthi of IV Yr have won 1st prize for their paper entitled **“Ventilating System for Amitotic People”** at **“PEPIEC”** conducted by Annai Teresa College of Engineering, Villupuram on 25th Feb.2017.
- Manakular Vinayagar Institute of Technology, Pondicherry had organized a National Level Technical Symposium **‘MITILENCE’** on 28th Feb.2018. The following students participated in various events and brought home many covetable prizes.
- Selvan. D.Manikandan of III Yr has got III prize for his paper entitled **“IOT from Farm to Fork”** at the National Level Technical Symposium **“CAPTIOSUS V3.0,2K17”** conducted by University College of Engineering, Tindivanam on 9th March 2018 and Selvi. R.Aruna and Selvi. U.Gayatiri of III Yr have won 1st prize for their paper entitled **“Hedge the Aquatic and Topple Skedaddle Cyborg”** at the same event.
- Selvi. R.Aruna and Selvi. U.Gayatiri of III Yr have won II prize for their project entitled **“ Hedge the Aquatic and Topple Skedaddle Cyborg”** at the National Level Technical Symposium **“TECBLAZ.2K17”** conducted by SRM Engineering College, Chennai on 9th Mar.2018.
- Selvan. A.Mohammed Irfan, Selvan. S.Nishanth and Selvan K.Karthi of III Yr have got 1st prize for their paper entitled **“Android and Wireless Based Robotic Vehicle Control”** at **“NCETECE’18, 2K18”** conducted by Chendu College of Engineering and Technology, Kancheepuram on 9th March 2018.
- Selvan.K.Dhilipan, Selvan.M.Goutham and Selvan.N.Arunkumar of IV Yr have won 1st Prize for their paper entitled **“Versatile fuel tank tracking mechanism”** at **“Tattvika Prajja 2k17”** conducted by Shri Krishna College of Engineering and Technology, Puducherry on 16th Mar. 2017.
- Selvan.K.Dhilipan of IV Yr has won 1st Prize in **‘Technical Quiz’** at **“Tattvika Prajja ‘2k17”** conducted by Shri Krishna College of Engineering and Technology, Puducherry on 16th Mar. 2017.
- Selvan. B.Sathish and Selven. H.Ajithkumar of III Yr have won II Prize in **‘Android Competition’** conducted by Mailam Engineering College, Mailam on 1st Apr. 2017.

Industrial Visit

- Students of II Year went for an Industrial Visit to BSNL, Chennai in Jan. 2018.
- Students of III Year went for an Industrial Visit to Sans Bound Networking, Chennai in Jan. 2018.

Prize Winner in the Academic Year 2017-2018 (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.	V.Srimathi	III/C	Paper Presentation	12.03.2018	Raja Lakshmi Institute of Technology, Chennai	3 rd prize
2	B.Dinesh Kumar	III/C	Paper Fest	16.02.2018	University College of Engineering, Tindivanam	1 st prize
3	A.Manjula	III/B	Paper Presentation	01.03.2018	CK College of Engineering & Technology, Cuddalore	1 st prize
4	K.Karthick	III-B	Paper Presentation	29.08.2017	University College of Engineering, Tindivanam	2 nd Prize
5	C.Suruthi	III-C	Paper Presentation	29.08.2017	University College of Engineering, Tindivanam	3 rd prize
6	V.Srimathi	III-C	Paper Presentation	04.10.2017	CK College of Engineering & Technology, Cuddalore	1 st prize
7	S.Lakshmi Bai	III-B	Paper Presentation	30.08.2017	Meenakshi Sundarajan Engineering College, Chennai	2 nd Prize
8	K.Kavi	III-B	Paper Presentation	30.08.2017	Meenakshi Sundarajan Engineering College, Chennai	2 nd Prize
9	S.Soundarya	III-C	Paper Presentation	07.10.2017	SKR Engineering College, Chennai	1 st prize
10	K.Karthi	III-B	Paper Presentation	15.02.2018	Chendu College of Engineering & Technology, Chennai	1 st prize
11	S.Nishanth	III-B	Paper Presentation	15.02.2018	Chendu College of Engineering & Technology, Chennai	1 st prize
12	C.Suruthi	III-C	Paper Presentation	16.02.2018	University College of Engineering, Tindivanam	3 rd prize

13	R.Praveena	II/B	Paper Presentation/Physics	11.04.2018	Arunai Engineering College, Tiruvanmalai	3 rd prize
14	J.Stella	II/B	Paper Presentation/Physics	11.04.2018	Arunai Engineering College, Tiruvanmalai	3 rd prize
15	N.Anandhi M.Anbarasi	III-A	Paper Presentation	23.09.2017	DMI College Of Engineering, Chennai	3 rd prize
16	S.Soundarya	III-C	Paper Presentation	28.09.2017	Asan Memorial College Of Engineering And Technology, Chengalpattu	1 st prize

➤ Prize Winner in the Academic Year 2017-2018 (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	S.Aruna U.Gayathri	III/A	Paper Presentation	12.02.18	Alpha College of Engineering, Pondicherry	II Prize
2	S.Vengatesh	III/C	Paper presentation	Feb 2018	Manakula Vinayagar Institute of Technology, Pondicherry	II Prize
3	R.Jeevanandham	I Year	Paper Presentation	28.02.18	Manakula Vinayagar Institute of Technology, Pondicherry	II Prize

Details of students participation in various Sports Events:

Prize Winner in the Academic Year 2017-2018 (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.	N.Hariharan	III/A	Atheletic/800mts	05.10.2017 & 06.10.2017	Anna University Sports Board	1 st prize
2	N.Hariharan	III/A	Atheletic/4x400 mts	05.10.2017 & 06.10.2017	Anna University Sports Board	1 st prize
3	G.Mahalaxmi	II/A	Dr.MGR Trophy/Kabaddi	09.08.2017	Villupuram Collector Office.	1 st prize
4	G.Mahalaxmi	II/A	Dr.MGR Trophy/Basket Ball	09.08.2017	Villupuram Collector Office.	1 st prize

5	G.Mahalaxmi	II/A	Dr.MGR Trophy/Volley Ball	09.08.2017	Villupuram Collector Office.	1 st prize
6	G.Mahalaxmi	II/A	Dr.MGR Trophy/Handball	09.08.2017	Villupuram Collector Office.	1 st prize
7	G.Mahalaxmi	II/A	Zonal Tournament 2017-2018 Women (Zone V) Volley Ball	22.08.2017 & 23.08.2017	UCET,Villupuram	3 rd Prize
8	G.Mahalaxmi	II/A	Zonal Tournament 2017-2018 Women (Zone V) Basket Ball	25.09.2017	Surya Group of Institutions,Vikkara vandi	2 nd Prize
9	G.Mahalaxmi	II/A	Zonal Tournament 2017-2018 Women (Zone V) Hand Ball	22.08.2017	UCET,Villupuram	3 rd Prize
10	E.Elavarasi K.Malavika	II/A	Zonal Tournament 2017-2018 Women (Zone V)Chess	13.09.2017	CK College of Engineering,Cuddal ore	3 rd Prize
11	E,Dinesh	II/A	Zonal Tournament 2017-2018 Atheletics Men (Zone V)/ 800 mts	05.10.2017 & 06.10.2017	Adhiparasakthi Engineering College,Melmaruvat hur	2 nd Prize
12	E.Dinesh	II/A	Zonal Tournament 2017-2018 Atheletics Men (Zone V)/ 1500 mts	05.10.2017 & 06.10.2017	Adhiparasakthi Engineering College,Melmaruvat hur	2 nd Prize
13	E.Dinesh	II/A	Dr.MGR Trophy/Basket Ball	09.08.2017	Villupuram Collector Office.	2 nd Prize
14	S.Madhan Ram	II/A	Zonal Tournament 2017-2018 Men(Zone V) Hand Ball	29.08.2017 & 30.08.2017	Mailam Engineering College,Mailam	1 st prize
15	S.Madhan Ram	II/A	Zonal Tournament 2017-2018 Men(Zone V)	05.10.2017 & 06.10.2017	Adhiparasakthi Engineering College,Melmaruvat hur	3 rd Prize

			100 mts			
16	S.Madhan Ram	II/A	Minute To Win It	23.03.2018	Anna University,BIT campus	1 st prize
17	E.Elavarasi K.Malavika	II/A	Zonal Tournament 2017-2018 Women (Zone V)/ Chess	13.09.2017	CK College of Engineering,Cuddalore	III Prize

➤ R & D Activities



B.Sathish participated Paper Presentation and won Third prize at University College of Engineering and Technology,Kancheepuram



Project from “Versatile fuel tank tracking mechanism won First prize at University College of Engineering ,Villupuram.

Articles

Scientist of the quarter Thomas Alva Edison



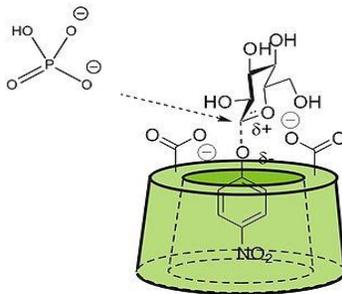
He was born on February 11, 1847. He was an American inventor and businessman, who has been described as America's greatest inventor. He is credited with developing many devices in fields such as electric power generation, mass communication, sound recording, and motion pictures. These inventions, which include the phonograph, the motion picture camera, and the long-lasting, practical electric light bulb, had a widespread impact on the modern industrialized world. He was one of the first inventors to apply the principles of mass production and teamwork to the process of invention, working with many researchers and employees. He is often credited with establishing the first industrial research laboratory. Edison was raised in the American midwest and early in his career he worked as a telegraph operator, which inspired some of his earliest inventions. In 1876, he established his first laboratory facility in Menlo Park, New Jersey, where many of his early inventions would be developed. He would later establish a botanic laboratory in Fort Myers, Florida in collaboration with businessmen Henry Ford and Harvey Firestone, and a laboratory in West Orange, New Jersey that featured the world's first film studio, the Black Maria. He was a prolific inventor, holding 1,093 US patents in his name, as well as patents in other countries. Edison's major innovation was the establishment of an industrial research lab in 1876. It was built in Menlo Park, a part of Raritan Township (now named Edison Township in his honor) in Middlesex County, New Jersey, with the funds from the sale of Edison's quadruplex telegraph. After his demonstration of the telegraph, Edison was not sure that his original plan to sell it for \$4,000

to \$5,000 was right, so he asked Western Union to make a bid. He was surprised to hear them offer \$10,000 (\$216,300 in today's dollars. which he gratefully accepted. The quadruplex telegraph was Edison's first big financial success, and Menlo Park became the first institution set up with the specific purpose of producing constant technological innovation and improvement. Edison was legally attributed with most of the inventions produced there, though many employees carried out research and development under his direction. His staff was generally told to carry out his directions in conducting research, and he drove them hard to produce results.William Joseph Hammer, a consulting electrical engineer, started working for Edison and began his duties as a laboratory assistant in December 1879. He assisted in experiments on the telephone, phonograph, electric railway, iron ore separator, electric lighting, and other developing inventions. However, Hammer worked primarily on the incandescent electric lamp and was put in charge of tests and records on that device (see Hammer Historical Collection of Incandescent Electric Lamps). In 1880, he was appointed chief engineer of the Edison Lamp Works. In his first year, the plant under General Manager Francis Robbins Upton turned out 50,000 lamps. According to Edison, Hammer was "a pioneer of incandescent electric lighting".Frank J. Sprague, a competent mathematician and former naval officer, was recruited by Edward H. Johnson and joined the Edison organization in 1883. One of Sprague's contributions to the Edison Laboratory at Menlo Park was to expand Edison's mathematical methods. Despite the common belief that Edison did not use mathematics, analysis of his notebooks reveal that he was an astute user of mathematical analysis conducted by his assistants such as Francis Robbins Upton, for example, determining the critical parameters of his electric lighting system including lamp resistance by an analysis of Ohm's Law, Joule's Law and economics.

M. Anandhi

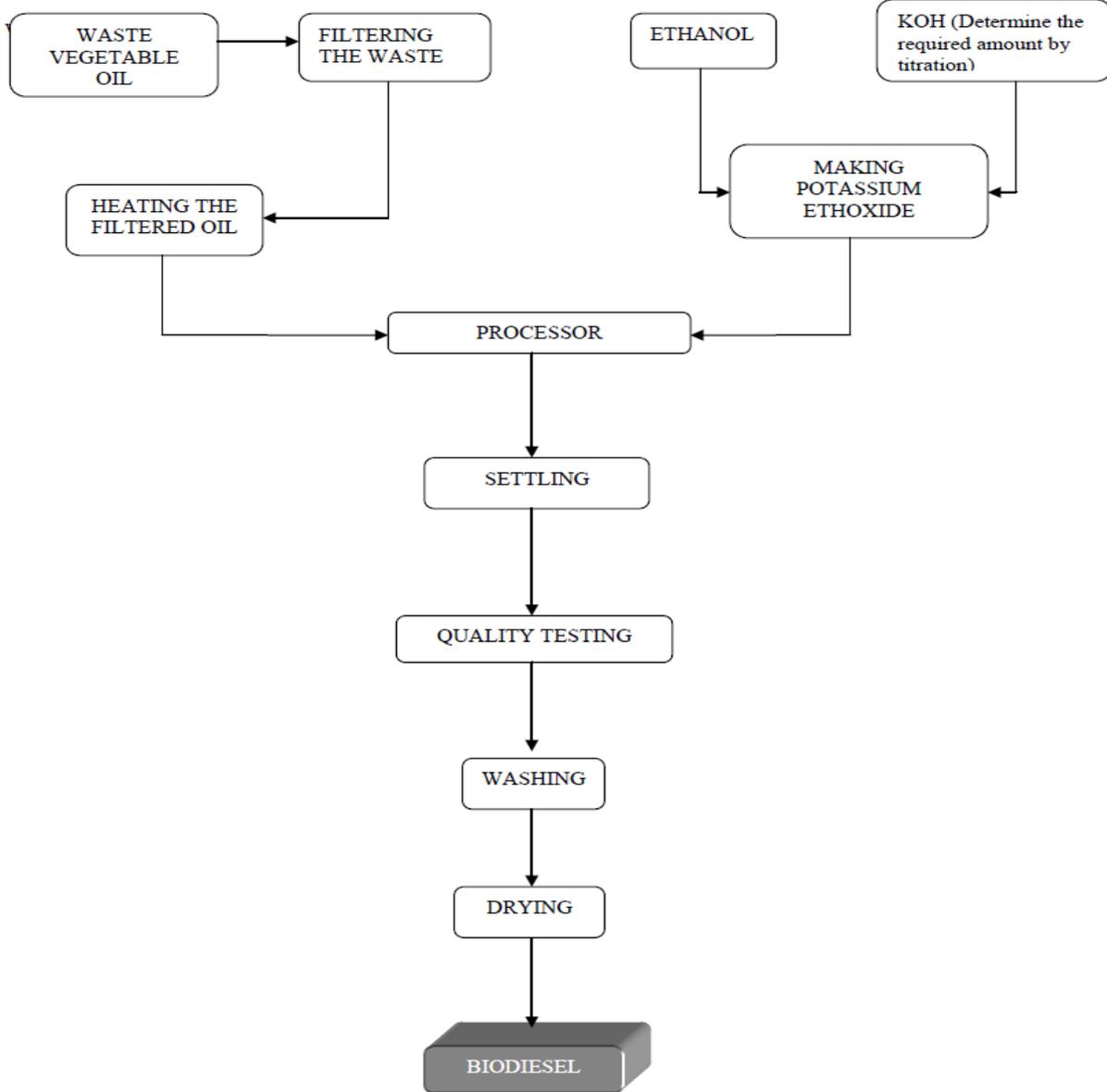
IV Year

Artificial enzyme



An **artificial enzyme** is a synthetic, organic molecule or ion that recreate some function of an enzyme. The area promises to deliver catalysis at rates and selectivity observed in many enzymes. **Enzyme** catalysis of chemical reactions occur with high selectivity and rate. The substrate is activated in a small part of the enzyme's macromolecule called the active site. There, the binding of a substrate close to functional groups in the enzyme causes catalysis by so-called proximity effects. It is possible to create similar catalysts from small molecule by combining substrate-binding with catalytic functional groups. Classically artificial enzymes bind substrates using receptors such as cyclodextrin, crown ethers, and calixarene. Artificial enzymes based on amino acids or peptides as characteristic molecular moieties have expanded the field of artificial enzymes or enzyme mimics. For instance, scaffolded histidine residues mimics certain metalloproteins and -enzymes such as hemocyanin, tyrosinase, and catechol oxidase). Artificial enzymes have been designed from scratch via a computational strategy using Rosetta. In December 2014, it was announced that active enzymes had been produced that were made from artificial molecules which do not occur anywhere in nature.

Production of Biodiesel from Waste Vegetable Oil



Biodiesel is an alternative fuel similar to conventional or 'fossil' diesel. Biodiesel can be produced from straight vegetable oil, animal oil/fats, tallow and waste cooking oil. The process used to convert these oils to Biodiesel is called transesterification. This process is described in more detail below. The largest possible source of suitable oil comes from oil crops such as rapeseed, palm or soybean. Most biodiesel is produced from waste vegetable oil sourced from restaurants, chip shops, industrial food producers such as Birdseye etc. Though oil straight from the agricultural industry represents the greatest potential source it is not being produced commercially simply because the raw oil is too expensive. After the cost of converting it to biodiesel has been added on it is simply too expensive to compete with fossil diesel. Waste

vegetable oil can often be sourced for free or sourced already treated for a small price. (The waste oil must be treated before conversion to biodiesel to remove impurities). The result is Biodiesel produced from waste vegetable oil can compete with fossil diesel. The advantages of using biodiesel are it reduces emissions of carbon monoxide (CO) by approximately 50% and carbon dioxide by 78.45% on a net life cycle basis because the carbon in biodiesel emissions is recycled from carbon that was already in the atmosphere, rather than being new carbon from petroleum that was sequestered in the earth's crust, it contains fewer aromatic hydrocarbons: 56% reduction for Benzofluorathene and 71% reduction for Benzopyrenes. Biodiesel also eliminates sulfur emissions (SO₂) since not containing sulfur, it reduces by as much as 65% the emissions of particulates, which consist of small particles of solid combustion products. According to testing sponsored by the department of energy, this can reduce cancer risks up to 94%, it does not produce more NO_x emissions than petro-diesel, but these emissions can be reduced through the use of catalytic converter. The increase in NO_x e) Biodiesel has a higher cetane rating than petrodiesel, and therefore ignites more rapidly when injected into the engine. It also has the highest BTU content of any alternative fuel (Ethanol, LPG) in its pure form (B100).

S. Archana
III Year

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