



Annual Report 2021-22
Mahendra Engineering College
IIC ID-IC201810935



A. About IIC Institute

- **Vision / Mission of IIC established at the Institute**

Vision

To be a Centre of Excellence in Innovation, Research and Entrepreneurship.

Mission

- To inspire and motivate students and faculty members to actively take part in creativity, innovation and research;
- To empower innovators to develop novel products, prototypes and promote creation of IP and technology transfer;
- To encourage start-ups and entrepreneurs to develop novel solutions to societal problems and create skilled jobs to promote growth;

- **Journey of IIC established at the Institute**

Our College established IIC during 2019 and under the guidance of the Chief mentor (Principal) the IIC core team is created. It includes the IIC Coordinator, IIC Ambassadors, Faculty Coordinators and Student Representatives. Since then IIC has occupied a central place in the innovation ecosystem of our institute and plays a vital role in organising and coordinating several activities under various themes of innovation. The major functions of IIC include:

- Organizing periodical workshops/seminars/ interactions with investors, entrepreneurs, professionals to create a mentor pool for student innovators.
- Conducting innovation, start-up and entrepreneurship-related activities.
- Identifying and rewarding innovations from students and sharing success stories from industry Guests.
- Networking with local/national entrepreneurship development organizations.
- Organizing Hackathons, idea competition, mini-challenges etc., with the involvement of industries.

- Mentoring students and faculty members by industry Professionals to nurture new ideas, patents and developing prototypes.
- Creating an Institution's innovation portal to highlight innovative projects carried out by our faculty and students.

- **Diversified representation in the IIC established at the Institute from Industry, Interdisciplinary & Departments/ Units etc.**

Our IIC is a composition of diversified group of individuals, representing innovation mentors, industry experts, academic leaders, faculty members, students, first generation entrepreneurs, leading businessmen, etc.

Sl. No.	Name of the Member	Category/Role	Affiliation/ Occupation
1	Dr.R.V.Mahendra Gowda	Chief Mentor	Principal, Mahendra Engineering College
2	Dr.D.Subramaniam	IIC Coordinator	Professor and Head, Department of Aerospace Engineering , MEC
3	Dr.A.Sudhahar	Industrialist	Managing Director, Dimensions, Structural Design, Coimbatore
4	Dr.L.S.Kannan	Industry Expert	Joint General Manager, L&T Construction, Chennai.
5	Mr.S.Sankaranarayanan	Industry Expert	Chief Operating Officer, TVS Haritha Techserv Ltd.
6	Dr.G.Appa Rao	External Academic Expert	Prof., Dept. of Civil Engineering, IIT Madras
8	Dr.M.Duraiselvam	External Academic Expert	Prof. Dept. Production Engg, NIT Trichy
9	Dr.C.Dhavamani	Academician / Engineering sector	Professor and Head, Dept. of Aeronautical Engineering, MEC
10	Dr.K.Vidhya	Academician / Engineering sector	Professor and Head, Dept. of Civil Engg., MEC
11	Dr.T.Jesudas	Academician / Engineering sector	Professor and Head, Dept. of Mechatronics , MEC
12	Dr.S.Ashokumar	Academician ./ Management sector	Professor and Head, Department of MBA, MEC
13	Dr.N.Viswanathan	Academician / Engineering sector	Professor and Head, Department of ECE, MEC
14	Dr.M.Kannan	Academician /	Professor and Head,

		Engineering sector	Department of CSE, MEC
15	Dr. R. Uthirasamy	Academician / Engineering sector	Professor and Head, Department of EEE, MEC
16	Dr.S.Raju	Academician / Engineering sector	Professor and Head, Department of IT, MEC
17	Dr.M.Srinivasan	Academician / Engineering sector	Professor and Head, Department of Aerospace Engineering , MEC
18	Dr.A.Neela Madheswari,	Academician / Engineering sector	Professor ,Department of CSE, MEC
19	Mr.Santhosh Kumar	First Generation Entrepreneur	Eelgrass Engineering Services (P) Ltd, Coimbatore
20	Mr.Manikandan N	First Generation Entrepreneur	Aham Global Infotech Pvt. Ltd., Coimbatore
21	Mr.Prince Chawhan	First Generation Entrepreneur	Khabai Tech, Bihar
22	Er.Guru Bharathi	First Generation Entrepreneur	Bharathi Builders and Contractors, Salem
23	Er.A.S.Asfar,	First Generation Entrepreneur	SAI Associates, Salem
24	A.S.Haritha	Student	IV Year Mechanical Engg
25	V.Pavankumar	Student	IV Year ECE
26	S.Kavushick Ram	Student	IV Year Mechanical Engg.
27	M.Karthikeyan	Student	IV Year Civil Engg.
28	K.Nisha	Student	IV Year Aeronautical Engg.
29	B.Divya	Student	III Year Civil Engg.
30	S.Janani	Student	III Year Agricultural Engg.
31	V.Rajendran	Student	III Year Information Technology.
32	D.Manoj Prabhakar	Student	III Year Aerospace Engg.

B. Brief mention of key functionaries at the IIC Institute

The key functionaries of our IIC are:

President

The President of IIC is the Principal of our College Dr.R.V.Mahendra Gowda.

He constituted the Institution's Innovation Council (IIC) and nominated the Coordinator, Ambassadors and members responsible for smooth functioning of IIC. He chairs important IIC meetings and acts as a chief mentor for the entire IIC team at the Institute level.

Vice-President

- **The Vice-President of IIC is Dr.D.Subramaniam, Professor and Head of Aerospace Engineering.**
- He leads the Institution's Innovation Council (IIC). He will have the IIC portal Login ID and will be the custodian of IIC portal login and data/ reports uploaded therein.
- He will call the meetings, set meeting agenda and will monitor the deliverable and main point of contact with MHRD Innovation Cell.
- He will respond to all communication from IIC National Coordination team (MHRD Innovation Cell) and will be responsible to ensure decent performance of IIC. He will coordinate with MHRD innovation cell and responsible for all the IIC activities in the institute.

Convenor

- **Dr.R.Sasi kumar, Associate Professor, Mechanical Engineering.**
- The Convenor will work in close coordination with IIC Coordinator and will provide help wherever required for smooth conduction of activities.
- He will ensure that Quarterly Council Meeting is planned effectively. Conduct Council Meeting in accordance with prescribed rules and that matters are dealt with in an orderly, efficient manner.
- He will ensure the participation in the meeting and will prepare the meeting agenda at least a week before the meeting. He will prepare the minutes of the IIC meetings and circulate amongst all members for their information and needful action.
- He will collect the inputs from all the members of the council at regular interval, especially external members for better planning of IIC activities and effective delivery of results.

Coordinators

- Following members will work in close coordination with President, Vice-President and Convener to develop a comprehensive ecosystem of innovation and

synergy in efforts to boost new product development and entrepreneurship. They will work as per the responsibilities assigned in council meeting.

- **Innovation Activity Coordinator**

Dr.T.Jesudas, Professor and Head, Dept. of Mechatronics. He will work to promote innovation related activities on campus or as mandated in Institution's Innovation Council (IIC) meeting.

- **Start-up Activity Coordinator**

Dr.C.Dhavamani, Professor and Head, Dept. of Aeronautical Engineering. She will work to boost startup generation among students and related activities or as mandated in Institution's Innovation Council (IIC) meeting.

- **Internship Coordinator**

Dr.KR.Kalphana, Associate Professor, Dept. of Agricultural Engineering Will work to arrange student internships in startups, so to expose them with startup ecosystem in India, real-life challenges in startup and their success stories or as mandated in Institution's Innovation Council (IIC) meeting.

- **IPR Activity Coordinator**

Dr.K.Vidhya, Professor and Head, Dept. of Civil Engineering. She will promote awareness about IPRs and conduct related activities on campus or as mandated in IIC council meeting.

- **Social Media Coordinator**

Mr.S.Saravanan, HR Manager. He will create and manage IIC activities with press, and social media. He will be responsible for posting all the relevant information about council meeting resolution and action plan, IIC activities and follow/tag MIC/IIC page and posts on these platforms. He will also ensure that all students follow MIC/IIC page/account on social media to get first-hand information.

C. Portfolio/graphical/Tabular representation of Resource strength (Human capital and Physical capital) of the IIC institution

S. No.	Portfolio	Resource strength
1	Total No. of IIC Members	97
2	Total No. of IAs	10
3	Total No. of faculty Mentors From Portal	4
4	Pre-Incubation Units, If any	13
5	Incubation Units, If any	3
6	IP Facilitation Unit, If any	1

D. Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus.

- Our Institute has established M-FIRST (Mahendra Foundation for Innovative Research in Science & Technology).
- Our College has established 12 Centres of Excellence such as AI & ML, Catia Design, Labview, L&T Formwork, and Skill development with MSME, Centre for Innovation and Product Development etc.
- Each Department has an exclusive student Club to promote creativity, innovation and organize several activities for students.
- MBA Department actively coordinates Entrepreneurial initiatives such as pre-incubation, incubation, entrepreneurship education have been performed regularly using well defined evaluation parameters.
- Students are encouraged to actively participate in Inspire programmes, EAPs, Design contests, Project exhibitions, etc.
- Awareness programmes on Patenting were organized in collaboration with Patent Office Chennai.
- Exposure of interested students to innovation and pre incubation activities at their early stage and to support the pathway from ideation to innovation to market, mechanisms has been devised at institution level.

- Our Institute links the start-ups and companies with wider entrepreneurial ecosystem and by providing support to students who show potential, in pre-startup phase. Connecting student entrepreneurs with real-life entrepreneurs will help the students in understanding real challenges which may be faced by them while going through the innovation funnel and will increase the probability of success.
- Stakeholder engagement has been given prime importance in the entrepreneurial agenda of the institute. Institutes found potential partners, resource organizations, micro, small and medium sized enterprises, social enterprises, schools, alumni, professional bodies and entrepreneurs to support entrepreneurship and co-design the programs.
- Our Institute has developed policy and guidelines for forming and managing the relationships with external stakeholders including private industries.

E. Highlight Achievements (Narrative/Graphical/tabular representation)

- **Number and Different types of I&E and IPR activities Conducted**

S. No.	Program conducted
1	Establishment of Mahendra Foundation for Innovative Research in Science and Technology (M-FIRST)
2	You Can Be An Entrepreneur
3	National Innovation Day
4	National Education Day
5	India Startup Day
6	My Story - Motivational Session by Successful Innovators.
7	Workshop on “Entrepreneurship and Innovation as Career Opportunity
8	My Story - Motivational Session by Successful Entrepreneur/Start-Up Founder.
9	Session on Problem Solving and Ideation Workshop
10	Entrepreneurial Avenues through Innovative Ideas
11	Workshop on Entrepreneurship Skill, Attitude and Behavior Development
12	National Pollution Control Day
13	Entrepreneurship and Employability Opportunities for Young Engineers
14	Intellectual Property Rights ,Start-Up and Innovations


15	Innovation in Formwork
16	Innovation Geotechnical Design on Earthquake Resistance Sub Structure
17	Patent Filing and its Importance
18	E-Symposium on Building Innovation Ecosystem in Educational Institutions- Day 1
19	E-Symposium on Building Innovation Ecosystem in Educational Institutions- Day 2 (12th Jan 2022)
20	Orientation Session on IIC4.0 & Features
21	Design Thinking and Innovation
22	Innovation and Creative Problem Solving
23	Design Thinking and New Product Development
24	Innovative Techniques in Formwork Elements
25	Agri Engineering Startups-The Big Opportunities,Challenges and the Thrill
26	Industrial IOT Research Challenges (R&D And Innovation)
27	Awareness Programme on Intellectual Property Rights (IPR) under National Intellectual Property Awareness Mission (NIPAM)
28	My Experience as an Entrepreneur
29	Start-Up as a Probable Career Choice
30	Innovation and Design Industry Opportunities for Chemical Engineering
31	Incubation & Pre Incubation
32	Design Thinking and Implementation on Internship and Project
33	Innovation and Technological Entrepreneurship
34	Field/Exposure Visit to Pre-Incubation Units Such as Fab Lab, Makers Space, Design Centres, City MSME Clusters, Workshops, etc.
35	Startup: A Generation of Nutraceutical and Phytopharmaceutical Entrepreneurs
36	Session on Achieving Problem-Solution Fit & Product-Market Fit
37	National Science Day
38	Budding Entrepreneurs Opportunities and Challenges

39	Expert Talk on "Process of Innovation Development & Technology Readiness Level (TRL)" & "Commercialisation of Lab Technologies & Tech-Transfer
40	CII - Creative Inspiration and Incubation"
41	Perspective And Prospects of Design Thinking
42	Workshop on Design Thinking, Critical Thinking and Innovation Design
43	Agri Engineering Start-Ups- Energy Savings Opportunity in The Domestic and Agri Based Equipment by using the Solar Power Plant
44	Entrepreneurship Opportunities and Skills in Agriculture Sector
45	Innovation
46	Entrepreneurship-Guide to Building a Career in Aviation Industry
47	Session/ Workshop on Business Model Canvas (BMC)
48	World Earth Day
49	Start Up - Role of Statistics in Machine Learning
50	World Intellectual Property Day
51	Start Up - Automation in Core Industries
52	Entrepreneurship for Electrical Engineers
53	Design Thinking and the World
54	How to Build a Successful Start-Up in Network Security
55	Session on "How To Plan for Start-Up and Legal & Ethical Steps
56	Challenges in Entrepreneurship and How to Overcome It
57	National Technology Day
58	Innovation and Creative Writing
59	Creation of E-Repository of E-Learning Sessions on I&E at IIC Institute
60	World Entrepreneurs Day
61	Workshop on Intellectual Property Rights (Iprs) and IP Management for Start Up
62	Demo Day/Exhibition/Poster Presentation of Business Plan/Prototype Developed & Linkage with Innovation Ambassadors for Mentorship Support

63	Critical Thinking & Creative Thinking Modeling of Process Equipments
64	Innovation Methods in Form Work Elements
65	Innovation- Cloud Computing
66	Entrepreneurship Opportunities and Skills Required in Petro Chemical Sector
67	Organise Session on “Lean Start-up & Minimum Viable Product/Business”- Boot Camp (or) Mentoring Session
68	Innovation in IOT Based Manufacturing
69	Start up-India Empowerment
70	Startups -The First Few innovative Steps
71	Session on Accelerators/Incubation - Opportunities for Students & Faculties - Early Stage Entrepreneurs
72	Session/ Panel discussion with innovation and Start-up Ecosystem Enablers from the region/state/national level
73	Entrepreneurship opportunities and skills required in petro chemical Sector

List of ATAL schools Accepted Invitation


← → ↻ iic.mic.gov.in/institute/selected-schools



IIC ID
IC201810935

Mahendra Engineering College (C-37054)

Star Ratings: IIC 3.0
★★★★★



MY PROFILE
My Council
Manage Activity
Innovation Ambassador
Manage Pre-Incubation / Incubation Details
Schemes
ATAL School Linkage
Choose ATL Schools
Manage ATL Schools
e-Learning Resources

Selected ATL Schools

List of ATL Schools - Accepted Invitation

S.No.	School Code	School Name	Address	Email	Mobile	Action
1	10592672	GOVT.GIRLS HR. SEC. SCHOOL JARIKONDALAMPATTI	GOVT.GIRLS HR. SEC. SCHOOL JARIKONDALAMPATTI SALEM SALEM	jarikondalampattighss@gmail.com	9489977320	Accepted
2	67958340	MAHENDRA MATRICULATION HIGHER SECONDARY SCHOOL	KALIPPATTI, TIRUCHENGODE TALUK, NAMAKKAL DISTRICT, TAMIL NADU, INDIA PIN : 637501 KALIPPATTI NAMAKKAL	mahendraschool1978@yahoo.com	9944218317	Accepted
3	238912099	MUNICIPAL BOYS HIGHER SECONDARY SCHOOL AMMAPET	SALEM SALEM	hmmplbhssammamet@gmail.com	9489977424	Accepted

YUKTI

National Innovation Repository (TITLES)

S.NO	DEPT.	TITLE
1	AERO	MECHANICAL PROPERTY AND OXIDISATION BEHAVIOUR OF SPARK PLASMA SINTERED NICKEL BASED SUPER ALLOY FOR AEROSPACE APPLICATION
2	AERO	DESIGN AND DEVELOPMENT OF AIRCRAFT BRACKETS USING TOPOLOGY OPTIMIZATION FOR ADDITIVE MANUFACTURING
3	AERO	DESIGN AND FABRICATION OF AUTOMATIC POULTRY FEEDER CUM EGG COLLECTOR USING ARTIFICIAL INTELLIGENT
4	AGRI	AUTOMATION IN HYDROPONICS UNDER POLYHOUSE
5	AGRI	AUTOMATION IN TERRACE GARDENING
6	CHEMICAL	REMOVAL OF PFAS FROM WATER SOURCE USING A NATURAL COAGULANT (OKRA SEEDS)
7	CHEMICAL	PHOTOCATALYTIC MEMBRANES FROM BANANA STEM FIBERS FOR OIL WATER SEPARATION AND DEGRADATION OF TEXTILE DYE
8	CIVIL	COMPARABILITY OF STRENGTH AND PROPERTIES OF SELF HEALING CONCRETE USING BACILLUS SUBTILIS AND BACILLUS PSEUDOFIRMUS
9	EEE	PREPAID SMART ENERGY METER
10	FOOD	DEVELOPMENT AND QUALITY EVALUATION OF PROTEIN ENRICHED NUTRI BARS FOR MALNOURISHED CHILDREN
11	IT	RESULT MANAGEMENT SYSTEM
12	IT	FIRE DETECTION USING MACHINE LEARNING
13	IT	DIGITAL LIBRARY MANAGEMENT SYSTEM USING ANDROID APP
14	IT	ANDROID BLOOD BANK
15	MECH	FABRICATION OF TWO WHEELER MUDGUARD USING E-

		GLASS AND KENAF FIBER
16	MECH	FABRICATION OF LORRY TOP ROFF USING BORASSUS SHELL AND GROUND NUT SHELLS
17	PHARMA	POLYMER DRUG CONJUGATION TECHNOLOGY - MOLECULAR INSIGHTS OF DEXAMETHASONE AND HYALURONIC ACID- DEXAMETHASONE DRUG CONJUGATES AS A PROMISING TARGET FOR COVID-19
18	PHARMA	PRODUCTION AND CHARACTERIZATION OF BIOSURFACTANT AND ITS APPLICATIONS IN PHARMACEUTICAL SECTOR
19	CSE	DESIGN OF EFFICIENT SMART STREET LIGHT UTILIZATION SYSTEM USING IOT
20	AGRI	PORTAL FOR FARMERS TO SELL AGRICULTURAL PRODUCE AT BETTER RATE
21	CIVIL	COST EFFECTIVE PLASTIC ROAD CONSTRUCTION
22	CSE	TICKETLESS ENTRY SYSTEM TO MONUMENTS OR MUSEUMS
23	CSE	TRACING IP ADDRESS BEHIND VPN/PROXY SERVER
24	CIVIL	WASTE MANAGEMENT SYSTEM
25	CIVIL	MANUFACTURING PROCESS AND METHODS OF MAKING 3D PRINTING MATERIALS FOR BUILDING ELEMENTS
26	PHARMA	Development of Laccase Enzyme Based Nanocarbon Water Purifier And Detergent enhancer
27	CIVIL	OVER-HEIGHT VEHICLE DETECTION SYSTEM IN SUBWAY ROADS USING DIGITAL VIDEO PROCESSING
28	MECH	AUTOMATIC EMERGENCY BRAKING SYSTEM
29	CHEMICAL	Preparation of Adsorbent from Bio Mass for the Removal of Heavy Metal from Industrial Effluent
30	CSE	Graphical password authentication
31	IT	Brain Activity using Deep Transfer Learning
32	CSE	The Diagnosis of Coronary Heart Disease Using C4.5 Algorithm

33	PHARMA	Removal of Heavy Metals from Industrial Effluent by using Orange Peel
34	IT	Portal for Scholarship Details
35	CHEMICAL	Enriched cost effective biomass fuel by thermal treatment of coconut husk with waste engine oil
36	MECH	Pneumatic platform for physically challenged person to climb up the vehicle
37	ECE	Wireless Power Transfer
38	MECT	Design and Machining Investigation of High Entropy Alloy (HEA) and Inconel 825 composites by Wire Arc Additive Manufacturing(WAAM)
39	CIVIL	Automation in Hydroponics Under Polyhouse

Student's & Faculty ideas generated

S. No.	Ideas generated
1	Miniature Pick and Place Robot for Material Handling
2	Development of Laser Engraving Machine
3	Solar Powered Automated Irrigation System for Plants in Highways Divider
4	Design and implementation of finger print based intelligent ATM
5	Design and Fabrication of Automatic poultry feeder
6	Physio Fast Heal Assistive Technology
7	Miniature Scale Industrial Ash Aggregate Plant
8	Design and Fabrication of Sew Seed Dibbler
9	Development of Laccase Enzyme Based Water Purifier and Detergent enhancer
10	Well Equipped Portable and Odorless Biogas Plant in Aearobic process
11	Design and Fabrication of Eco Friendly Tiles Machine

• No. of Student's & Faculty Innovation/prototypes developed

S. No.	Innovation/Prototypes
1	Physio Fast Heal Assistive Technology
2	Design and Fabrication of Sew Seed Dibbler
3	Development of Laccase Enzyme Based Water Purifier and Detergent enhancer
4	Well Equipped Portable and Odorless Biogas Plant in Aearobic process
5	Design and Fabrication of Eco Friendly Tiles Machine
6	Miniature Pick and Place Robot for Material Handling
7	Development of Laser Engraving Machine

8	Solar Powered Automated Irrigation System for Plants in Highways Divider
9	Design and implementation of finger print based intelligent ATM
10	Design and Fabrication of Automatic poultry feeder
11	Miniature Scale Industrial Ash Aggregate Plant

• **No. of IPs generated, published and granted**

S. No.	Name of the faculty	Patent Title	Patent ID	Stage (published / granted)
1	Dr.C.T.Sivakumar	Transmission power and frequency based network selection scheme for minimizing the harmful radiation from GSM mobiles	202041035556	Patent Published
2	Dr.C.Dhavamani	Automatic Braeking system in Automobiles	201941020280	Patent Published
3	Dr.A.NeelaMadheswari	Secure and Reliable Smart E-voting System using Aadhar Card	201941018956 A	Patent Published
4	Dr.R.Vijayarajeswari	A Simple and Effective Device for Detecting and Diagnosing the earlier	201941013976 A	Patent Published
5	Dr.P.Umasankar and Dr.S.Sumathi	Industrial induction heater power converting system and a method	201941003361 A	Patent Published
6	Dr.P.Sureshkumar	Horizontal Axis, Cam Guided, Telescopic Blade, Yaw Controlled	201841033956A	Patent Published
7	Dr.P.Umasankar	Geofence based border limiting System	201941033492 A	Patent Published
8	Dr.K.Vidhya	Hybrid Ash Bricks	5075/CHE/2014	Patent Published
9	Dr.K.Vidhya	Hybrid Ash Aggregate Concrete	5727/CHE/2014	Patent Published
10	Dr.K.Vidhya	Building Health Monitoring Device	5728/CHE/2014	Patent Published
11	Dr.K.Vidhya	Fabrication and Testing methods of strain measuring Instruments for	6113/CHE/2015	Patent Published
12	Dr.K.Vidhya	Innovation technology in manufacturing process of Iash Brick	201641038578	Patent Published
13	Dr.A.Karthikeyan &Dr.P.Sureshkumar	Horizontal Axis, Cam Guided, Telescopic Blade, Yaw Controlled	201841033956 A	Patent Published
14	Mr.M.V.Muthukumar &Dr.K.Rajkumar	Flexible Sliding Stretcher	2.01741E+11	Patent Published
15	Dr.S.Sumathiand Dr.S.Umamaheswari	Hybrid solar power generation with lighting systems in street light	202041011231 A	Patent Published
16	Dr.S.Sumathi	Quick-wotted cloth cradle for newborn babies to reduce sleep disorders	202041017580 A	Patent Published
17	Dr.S.Umamaheswari	Harvesting Machine for Topiaca Vegetables	202041012787A	Patent Published
18	Mr.Karthikeyan	Hybrid solar power generation with lighting systems in street light	202041011231 A	Patent Published
19	Dr.T.Jesudas	Emergency vehicle warning system and method for traffic decongestion at intersections	201941053565 A	Patent Published
20	Dr.T.Jesudas	Irrigation system and method thereof	202041017193 A	Patent Published

21	Dr.A.Neela Madheswari	Cloud Based Data Security Model and System Thereof	201941053593A	Patent Published
22	Dr.M.Kannan, Dr.A.Neela Madheswari, Dr.P.Ramya and Dr.S.G Balakrishnan	Method for Estimation of Occurrence of a Cyber security Incident using a Probability Model	202041006697A	Patent Published
23	Dr.R.Vijayarajeswari	Novel Switching Agent for Zigbee Wireless Sensor Network using LAR	202041007785A	Patent Published
24	Dr.P.Ramya and Dr.K.Venkatasalam	IOT based letter box and a method thereof	202041010131A	Patent Published
25	Dr.P.Ramya	Design of smart water quality monitoring system using IoT	202041051450A	Patent Published
26	Dr.A.Umamaheswari	Big data based data analytics method for privacy preservation	202041057125A	Patent Published
27	Dr.S.Ananth Dr.S.Raju, Dr.S. Prema Dr. K. Radha	A System For Routing In Wireless Sensor Network	202041043598 A	Patent Published
28	Dr. S. Sunil	SPT - Mobile Banking: Secured payment transfer using Mobile Banking	202041012631 A	Filed

• **No. of Student & Faculty Start-ups/Ventures established.**

S. No.	Start-ups/Ventures established
1	Mr.Santhosh Kumar, Eelgrass Engineering Services (P) Ltd, S.F.2/304, Bodipalayam road,Madukkarai Post, Malumichampatti, Coimbatore,Tamil Nadu 641105
2	Mr.Manikandan N, Aham Global Infotech Pvt. Ltd Rasi Building, No : 161-162 , 2nd Floor, Ponnaiyarajapuram Street, Gandhi Park, Coimbatore, Tamil Nadu 641001
3	Mr.Prince Chawhan, Khabai Tech, Baghdulhan Road, Baghdulhan, Hajipur, Bihar 844101
4	Er.P.Sabarivasan Marutham Groups, 32, First cross street, Ganga Nagar, Kodambhakkam, Chennai-600024
5	Er.Guru Bharathi, Bharathi Builders and Contractors, 127, Main Road, AN Palayam, Kaniyur, Tiruppur – 642203, Tamilnadu
6	Er.A.S.Asfar, SAI Associates, 326,2, II nd floor, KAS Garden, Salem- 636 004, Tamilnadu.

• Amount spent on promotion and awareness generation on Innovation

Entrepreneurship in the campus

S. No.	Program conducted	Amount spent in Rs
1	Establishment of Mahendra Foundation for Innovative Research in Science and Technology (M-FIRST)	20,00,000
2	You Can Be An Entrepreneur	7500
3	National Innovation Day	5000
4	My Story - Motivational Session By Successful Innovators.	5000
5	Workshop On “Entrepreneurship And Innovation As Career Opportunity	5000
6	My Story - Motivational Session By Successful Entrepreneur/Start-Up Founder.	3000
7	Entrepreneurial Avenues Through Innovative Ideas	3000
8	Workshop On Entrepreneurship Skill, Attitude And Behavior Development	3000
9	Entrepreneurship And Employability Opportunities For Young Engineers	10000
10	Intellectual Property Rights ,Start-Up And Innovations	5000
11	Innovation Geotechnical Design On Earthquake Resistance Sub Structure	5000
12	E-Symposium On Building Innovation Ecosystem In Educational Institutions- Day 1	5000
13	E-Symposium On Building Innovation Ecosystem In Educational Institutions- Day 2 (12th Jan 2022)	5000
14	My Experience As An Entrepreneur	3000
15	Innovation And Technological Entrepreneurship	5000
16	Startup: A Generation Of Nutraceutical And Phytopharmaceutical Entrepreneurs	3000
17	Budding Entrepreneurs Opportunities And Challenges	3000
18	Entrepreneurship Opportunities And Skills In Agriculture Sector	5000
19	Entrepreneurship-Guide To Building A Career In Aviation Industry	3000
20	Entrepreneurship For Electrical Engineers	5000
21	Challenges In Entrepreneurship And How To Overcome It	3000
22	World Entrepreneurs Day	5000
23	Entrepreneurship Opportunities And Skills Required In Petro Chemical Sector	5000
24	Session on Accelerators/Incubation - Opportunities for Students & Faculties - Early Stage Entrepreneurs	3000
25	Entrepreneurship opportunities and skills required in petro chemical Sector	3000

- Amount grant or fund supported to Student & Faculty lead Innovations, start-ups and IPR

S. No.	Innovation/prototypes	Amount spent in Rs.
1	Miniature Pick and Place Robot for Material Handling	50000
2	Development of Laser Engraving Machine	25000
3	Solar Powered Automated Irrigation System for Plants in Highways Divider	20000
4	Design and implementation of finger print based intelligent ATM	75000
5	Design and Fabrication of Automatic poultry feeder	200000
6	Physio Fast Heal Assistive Technology	450000
7	Miniature Scale Industrial Ash Aggregate Plant	300000
8	Design and Fabrication of Sew Seed Dibbler	300000
9	Development of Laccase Enzyme Based Water Purifier and Detergent enhancer	400000
10	Well Equipped Portable and Odorless Biogas Plant in Aearobic process	50000
11	Design and Fabrication of Eco Friendly Tiles Machine	300000
12	Our institution has provided fund for facilitating the publishing 11 patents	46000

- No. of Technology Transfer and Commercialisation happened

S. No.	Innovation/prototypes
1	Miniature Scale Industrial Ash Aggregate Plant
2	Physio Fast Heal Assistive Technology
3	Design and Fabrication of Automatic poultry feeder
4	Development of Laser Engraving Machine
5	Design and implementation of finger print based intelligent ATM

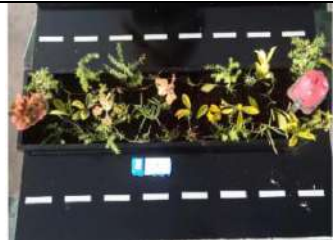



F. Highlight few best IIC Faculty/Student members and their achievements/ Rewarded for the innovations at different forum


[Profile of few faculties with 2-3 line of their achievements]

SI. No.	Name of the Faculty	Achievements
1	Dr.T.Jesudas	Received “Young Scientist of the Year 2019” award from Integrated Chambers of Commerce and Industry, New Delhi.
		Published a patent on “Emergency Vehicle Warning System and Method for Traffic Decongestion at Intersections”. Application No.201941053565 A,

		Publication Date: 03/01/2020.
		Published a patent on “Irrigation System and Method Thereof”. Application No. 202041017193, Publication Date : 21/04/2020.
		Published a book chapter on “Challenges and Applications of Data Analytics in Social Perspectives”, IGI Global publisher.

G. Highlight selected best Innovations & images with mention of inventor/innovation name

SI. No.	Name of the Faculty	Name of the Students	Title of the Innovation	Images
1	Dr.T.Jesudas	Suresh Babu R	Solar Powered Automated Irrigation System for Plants in Highways Divider	
		Arthur Paul Johnson		
		Karthick R		
2	Mr.D.Prabhakaran	Manikandan S	Miniature Pick and Place Robot for Material Handling	
		Harish Kumar R		
		Sadhana Shree S		
3	Mr.J.Dineshkumar	Arun Vinith S	Development of Laser Engraving Machine	
		Karthick Manikandan B		
		Kavin Kumar S		
4	Mr.J.Dineshkumar	Karthick Manikandan B Kavin Kumar S	Prototype-3D-Printing	

5	Dr.R.Sasikumar	Venkatesh R Khannan R.S Mahendran M Anumanthan I	Prototype-3D- Printing	
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H. Highlight selected start-ups established by students/faculties with mention of founder/cofounder name

- Er.S.Surenthar, Student of Mechatronics has established a start-up in the name of “Qbitto”. The solution provider for AI and Python Programming.
- Er.S.Mohan Raj, Student of Mechatronics has established a start-up in the name of “Royal Glaze Restoration”.

I. List if any break through Innovations / Technology Developed at the institute (2-3 technology with 2-3 lines about technology and innovation

- **Title of the Invention: Solar Powered Automated Irrigation system for Plants in Highways Divider**
- **Field of Invention: It is used for Highways and City Infrastructure development**
- **Abstract:**
On National Highways the NHAI is planting trees and shrubs to reduce the impacts of air pollution and dust. The green environment has many advantages such as Prevention of glare from the headlight of incoming vehicles, moderating the effect of wind and incoming radiations and so on. To keep the environment green, the continuous and regular watering to the plants is essential and important. Nowadays the watering is made manually in morning and in the peak hours, it creates the trouble to the travelers and it makes accidents in highways. To avoid accidents and troubles in the highways an automatic irrigation system must be introduced. **An innovative new solar operated irrigation system is developed to irrigate the plants in the highways divider or medians.**

J. Participation of IIC-institute in various programs of Central and Stage Govt. Highlighting specially for the schemes or programs

- **ARIIA – participation and Rank**

Our College is ranked by MHRD-AICTE in ARIIA in Band ‘EXCELLENT’ during 2021) in the category of Self-financing Colleges.

- **NISP Adoption status - Trained Faculty, Policy Formulation, Policy Implementation**
- Our Institute has a Start-up **Mahendra Next Wealth** promoted by our Management on the campus. Every year more than 300 students undergo internship and mentoring programs in this company. We have established the Start-up policy. **The Start-up activity Coordinators Dr.C.Dhavamani, Professor and Head, Dept. of Aeronautical Engineering and Dr P.Umashankar, Professor/EEE** have undergone training and they are coordinating the NSIP activities on the campus.
- **Smart India Hackathon**

Report on the Internal Smart India Hackathon 2022

Internal Smart India Hackathon 2022 conducted by the Department of CSE during 8th March 2022 from 10.30 a.m. to 1.40 p.m. focusing on the selection of Idea Submission to SIH 2022 organized by AICTE, Ministry of Education Govt of India, i4c and Persistent Systems. This gave an opportunity to showcase creativity and innovation through technology. The themes for the competition were focused on 20 areas with problem statement which directly involved in day to day life.

The response for the competition was note-worthy and out of 20 registered teams, 14 teams were selected and they presented their ideas in Internal SIH 2022. The team of evaluators adjudged the outcomes of the teams based on presentation, developing and implementation skills.

Teams of evaluators are,

1. Dr.D.Subramaniam, Professor & Head, Aerospace Engineering, IIC Coordinator, Mahendra Engineering College
2. Dr.P.Venkatesan, Associate Professor, EEE Department, Mahendra Institute of Technology
3. Dr. J.Stanly Jayaprakash, Professor & Head, CSE Department, Mahendra Institute of Technology
4. Dr.S.Ponlatha, Associate Professor, ECE Department, Mahendra Engineering College

Evaluators

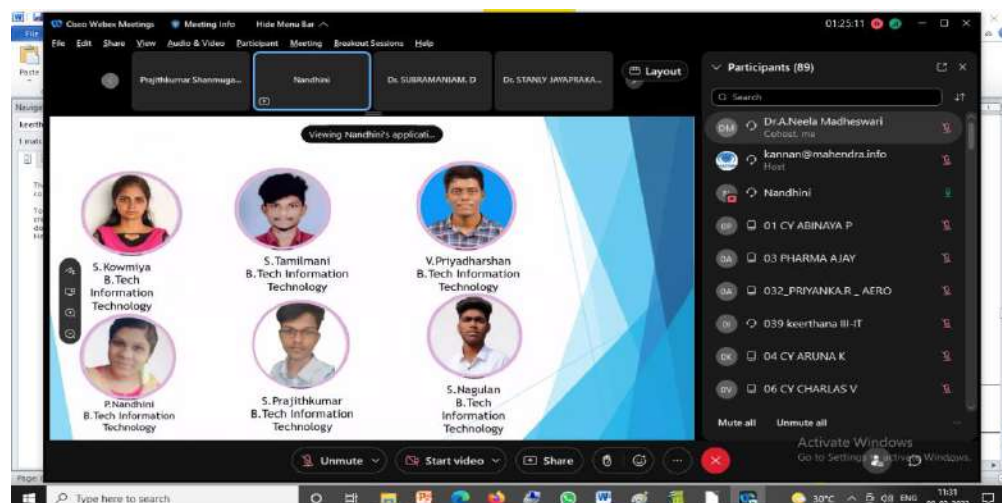


All the 14 teams submitted their ideas as SIH2022 website successfully.

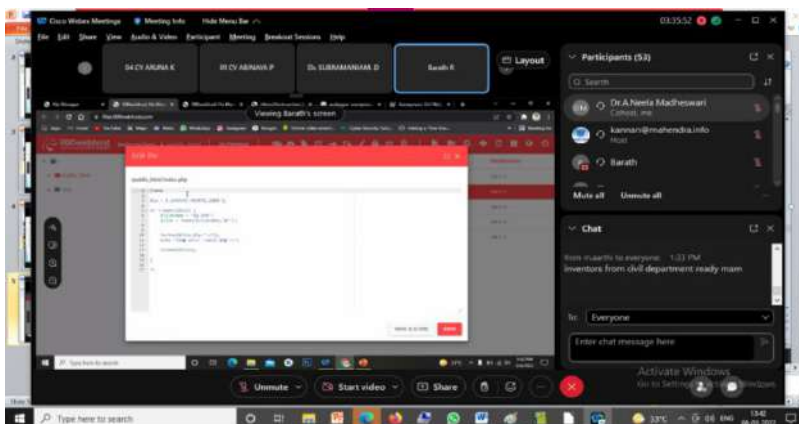
Titles of the 14 Teams-SIH 2022



Sample Screenshot during Team presentation



Sample Screenshot during Team demo



Sample Certificate given to student participant



Sample Certificate given to Evaluator of Internal SIH 2022



K. Detail of Social Media & Connections of IIC institute

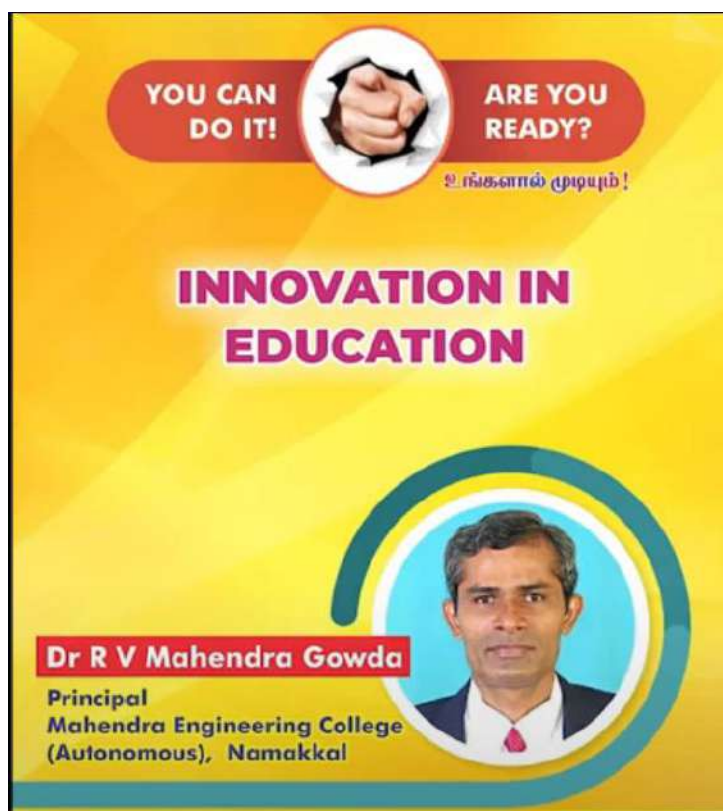
<https://www.facebook.com/IIC-Mahendra-Engineering-College-Namakkal-357733761751039>

L. Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell

Mahendra Engineering College Institution's Innovation Council (IIC) has systematically created the culture of innovation and start-up ecosystem on the campus. Our IIC includes large number of faculty, students and staff interested in various innovation and entrepreneurship related activities such as Ideation, Problem solving, Concept development, Design Thinking, IPR, etc. The activities are disseminated in various fora.

The Chief Mentor of our IIC Dr.R.V.Mahendra Gowda, Principal, Mahendra Engineering College jointly with Sri Eshwar Engineering College delivered a Webinar on Innovation in Education around 1700 students and faculty members all over the country participated in it. The video is uploaded in YouTube, which has around 244 Views and 15 Likes.

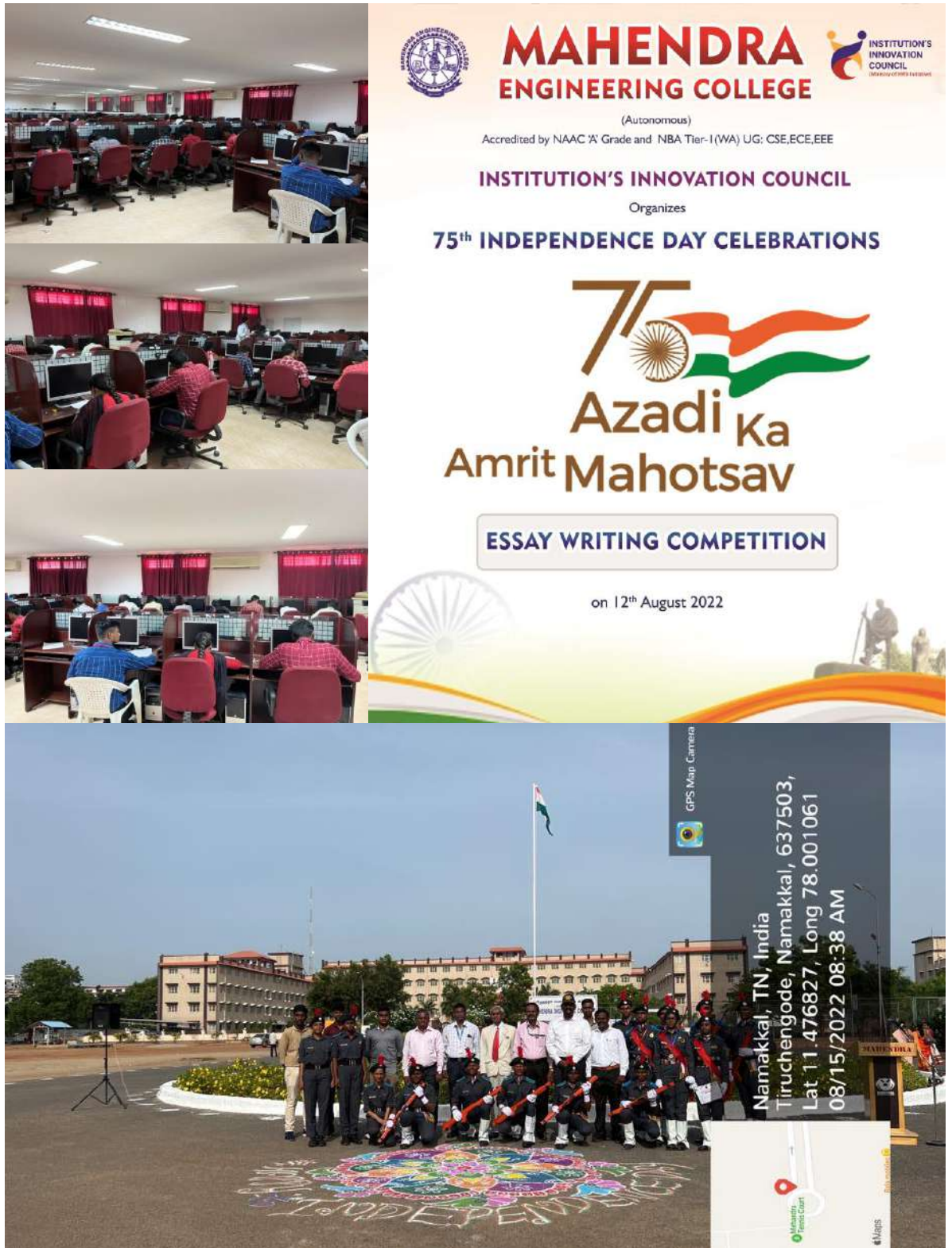
<https://www.youtube.com/watch?v=je8QXjeJcDs>



INSTITUTIONS' INNOVATION COUNCIL
MoE's Innovation cell
REGIONAL MEET on 08/08/2022 Dindigul, TN, India
Participation



75TH Independence day Celebrations



List of referred Institution for New IIC Registration

Refer Institute for IIC Registration

List of Referred Institute by you.

Add New

S.No.	Institute Name	Aishe Code	City	State	Status of Acceptance	IIC Registration Status	Action
1	SHREE SATHYAM COLLEGE OF ENGINEERING AND TECHNOLOGY	C-45302	Salem	Tamil Nadu	Pending	Approved	

QUICK LINKS

- Home
- Innovation Council
- SIH
- ARIIA

SOCIAL MEDIA LINKS

- Twitter
- Facebook
- Youtube
- Instagram

CONTACT US

www.mic.gov.in
iic.mhrd@aicte-india.org
011 2958 1239/1513/1223

Activate Windows
Go to Settings to activate Windows.

M. Contact

Institute Name : Mahendra Engineering College

Institute Address : Mahendhirapuri, Mallasamudram west, Tiruchengode TK,
Namakkal Dist-637 503

Website : www.mahendra.info



Principal

PRINCIPAL
MAHENDRA ENGINEERING COLLEGE
(AUTONOMOUS)
MAHENDHIRAPURI, MALLASAMUDRAM,
NAMAKKAL DT - 637 503