

Report of Amal Jyothi IEDC: 2016-2017

Name of the college : Amal Jyothi College of Engineering, Kanjirappally

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Activities report

SL No	Item	Nos
1	Number of Competitions/ Hackathons/Exhibition participated	29
2	Awards won by the students.	18
3	The amount generated by winning cash prize.	4,50,000
4	No of project exhibitions conducted	6
5	No of Startups in the IEDC with Details	27
6	No of Patents applied in the IEDC	21
7	No of Commercial Projects (Attached as item number 17)	

1. Awards/ Recognitions

1. Best technological product award in Rural Innovators Meet organized by Govt. Of Kerala (Best technological product award). (10,000)
2. First prize in startup expo Radiance '17 (Dan Jose and team).(15,000)
3. Second prize in project expo at GEC Thrissur.(15,000)
4. 3rd price for coffee table Ideathon 2017 by Key accelerator.
5. 6 companies got scholarships from KSUM (Rs 2,10,000/-)

6. **Malayala Manorama-SIB ‘Big Business Idea’** contest, **Mr Dan Jose, Mr Chandu Das K, Mr Allan Jose Sabu, and Mr Adarsh David Lal.** The team was mentored by **Mr Anoop SS (2,00,000)**
7. **Alen George, EEE S6** won the state level project competition, ‘*Know your home appliance*’, conducted by the **Energy Management Centre** in Thiruvananthapuram.
8. Three Amalites, **Ajo John Mathai, Bobby Isac and Robin Philip Thomas** are making a pitch this week at the **Facebook HQ** in California.
9. **Mr Sherin Sam Jose** attending a **CII**-initiated education summit in Kochi as a panelist, in a discussion on incubation centres.
10. **Department of Chemical Engineering** has stormed into the world of entrepreneurship, launching a bouquet of **consumer products** under the banner of the Entrepreneurship Development Club.
11. Amalite **Mr Hemanth Joseph** was part of Kerala police’s Cyberdome team, along with Mr Jithin D Kurup and Mr VB Saran, which made a timely exposure of the vulnerability of three banks in Kerala to hacking.
12. Prizes were also won at events conducted by the **BPCL Kochi Refinery, the Lions Club of Pala, and the Startup Village Chennai,** and our faculty members **Mr Deepu Benson and Ms Sharon Sunny** distinguished themselves by publishing articles.
13. **Professor Binu Mathew** won the Best Paper award at KETCON 2017 for their paper, ‘Coconut pest detector – A novel tool for early detection of red palm weevil’.
14. **Mr Subin Suresh, Mr Nikhil Thomas Abraham and Mr Geo James,** mentored by **Mr Manoj T Joy and Mr Anish Benny** winning the first prize at IIT Chennai’s **Shastra 2017 contest.** (Rs 1,00,000/-)
15. First prize in Techtop 2017 - Pepper Plucker Cum Separator (Rs 1,00,000/-)
16. Special Prize in KTU Tech fest 2017 for E- Spark (10,000)
17. RAIDCO has agreed to support Latino (product fabrication & marketing)
18. “LATINO” has been selected for funding through IDEADAY programme by KSUM

2. Special Programmes

1. Inauguration of TBI by Shri Pinarayi Vijayan, Chief Minister of Kerala on 21st May 2017.

3. Programmes organized

- 1) FabXL workshop on 17th,18th -3 -2017.
- 2) Two 2 day workshops on entrepreneurship on 14, 15 - 3 - 2017.
- 3) Innowords talk series 1 by Mr. Joe A Scaria- 7th Feb 2017.
- 4) Innowords talk series 2 by Mr. Rajeev G, DIC Kottayam- 20th Feb 2017.

- 5) Innowords talk series 3 by Mr. Thomas Paul Kariparambil on 28 March, 2017
- 6) 14 startup CEO's met together in a CEO's meet up on 12th March.
- 7) Organized Science Excursion on 24th February 2017.
- 8) Organized Yuva Mastermind 2017 on 27th and 28th Jan.
- 9) National Technology Day sponsored by the Kerala State Council for Science, Technology and Environment. The event featured a poster competition, exhibition and a lecture on 'Technology for Sustainable Growth'.

4. Selection and Participation

1. TEDx talk at NIT Calicut
2. IIM Startup Saturday
3. Startup I3
4. 3 projects were selected at Jyothi Engineering college contest.
5. 5 projects selected in Rural Innovators Meet by KSCSTE.
6. Creative Engineering Design
7. Participated in "LEAP EDTECH" by NASSCOM & T-Labs conducted at India Habitat Centre, New Delhi on 21st April 2017 sponsored by Kerala Startup Mission, Govt. of Kerala.
8. Nodal Offers Meet held at Kerala Technological Innovation Zone by Kerala Startup Mission on 24th & 25th of March 2017
9. Interactive session with Engineering Colleges and Jubilee Mission Medical College for interdisciplinary study and research on 1st April 2017.
10. PSG College, Coimbatore for NIMAT meeting.
11. Science Popularization at Cusat on April 2017.

5. IDEA Pitching

Projects applied

Sl.No	Project Title
1	Latinno - Latex Carry Backpack
2	Keranaveena - Tabletop Coconut Husking Tool
3	Areinno - Arecanut Husking Tool
4	L Spark
5	Automated Plug System
6	Adjustable Handle for Motorcycles
7	Smart Refrigerator
8	E-Tap (A Low Cost Automatic Tap)
9	Iron Ore Tailings(Iot) As A Replacement for River Sand(Fine Aggregate) in Plain Cement Concrete
10	E-Spark Hard-Boiled Eggs' Shell Peeler
11	Cocoa Separating Machine
12	Cooling of Motorcyclist Helmet With Thermoelectric Module

13	Sleep Detection and Collision Prevention Module
14	Versatile Digital Photo Frame
15	Automated Lathe Operation Attachement
16	E Turbo System
17	Emg Controlled Prosthetic Arm
18	Cccar Project Proposal
19	Intelligent Bus Tracking Sysytem
20	Pepper Plucker Cum Separator
21	Removal of Heavy Metal From Industrial Waste Water Using Aquatic Plants
22	Treatment of Raw Sludge And Primary Effluent for Bioelectricity Generation and Biosensor Development
23	Recoiling Broom Stick
24	Recover of Aroma in Tea_
25	Solar Powered Biodiesel Plant
26	Solar Powered Mobile Charging Station for Public Places
27	Table Pro
28	Tapioca Harvesting Machine
29	Real Time Intelligent Indigenous Multi Purpose System for Automobiles
30	Easy Tea Leaf Harvesting Machine
31	TNS Antivirus
32	Water Proof Headphones
33	Web Call Manger
34	Boiled Egg Desheller (Egshrem)
35	Pi-Talk
36	Biomass Briquetting Machine
37	Coconut Desheller
38	Collision Detection
39	Design and Development of Lead Free Bearings With Excellent Tribological Properties
40	Digital Photoframe
41	Domestic Refrigerator With Water Heater
42	E Turbo System
43	Gas Cylinder Lifter
44	Multi Purpose Harvester
45	Fabrication and Testing of Carbon and Kevlar Reinforced Hybrid Composite
46	Solar Dryer
47	Tapioca Peeling Machine

Internal: 1k Youth Entrepreneurship Awareness Camp

Sl.NO	Date	Topic	Handled by	No of Participants
1	13 th to 24 th December 2016	1K Youth for innovation & Entrepreneurship	Sherin Sam Jose, Joe A Scaria, Jippu Jacob & Abi Varghese	90

2	13 th to 24 th December 2016	1K Youth for innovation & Entrepreneurship	Sherin Sam Jose, Joe A Scaria, Jippu Jacob & Abi Varghese	90
3	13th & 14th of February 2017	1K Youth for innovation & Entrepreneurship	Sherin Sam Jose, Joe A Scaria, Jippu Jacob & Abi Varghese	90
4	13th & 14th of February 2017	1K Youth for innovation & Entrepreneurship	Sherin Sam Jose, Joe A Scaria, Jippu Jacob & Abi Varghese	90
5	14th & 15th of March 2017	1K Youth for innovation & Entrepreneurship	Sherin Sam Jose, Joe A Scaria, Jippu Jacob & Abi Varghese	90
6	14th & 15th of March 2017	1K Youth for innovation & Entrepreneurship	Sherin Sam Jose, Joe A Scaria, Jippu Jacob & Abi Varghese	90
7	21st & 22nd of March 2017	1K Youth for innovation & Entrepreneurship	Sherin Sam Jose, Joe A Scaria, Jippu Jacob & Abi Varghese	90
8	21st & 22nd of March 2017	1K Youth for innovation & Entrepreneurship	Sherin Sam Jose, Joe A Scaria, Jippu Jacob & Abi Varghese	90

6. Student Participated Outside College

Techtop 2017(IIT Delhi)

First Prize – Pepper Plucker Cum Separator
Four Teams from AJCE

7. Project Funding (External)

1	LiFi	3.63 lakhs	KSCSTE, Govt. of Kerala
2	Flywheel kinetic energy	10000	KSCSTE, Govt. of Kerala
3	Thermoelectric generator	13000	Energy Management Center
4	Study of PCM	13000	Energy Management Center
5	Solar dryer	14000	Energy Management Center
6	Development of graphene oxide/silicone rubber nanocomposite for tribological applications	35.05 Lakhs	DRDO, Govt. of India
7	Variable Resistance Treadmill For Wheelchair	1,20,000	Centre For Disability Studies, Govt. of Kerala

8	Automatic Pill Dispenser	25,000	Centre For Disability Studies, Govt. of Kerala
9	Design And Fabrication Of Anti Roll Back System In Wheel Chair Using Ratchet And Pawl Mechanism	20,000	Centre For Disability Studies, Govt. of Kerala
10	Portable Knee Therapy Device	20,500	Centre For Disability Studies, Govt. of Kerala
11	Enhancing the thermal insulation and mechanical properties in concrete using expanded Polystyrene beads, waste granite slurry and glass powder	11000	KSCSTE, Govt. of Kerala
12	Iron ore tailings(IOT) as a replacement for river sand(fine aggregate) in plain cement concrete	13000	KSCSTE, Govt. of Kerala
13	Study on the silica fume on the properties of coir fiber reinforced self compacting concrete	6000	KSCSTE, Govt. of Kerala

8. Project Funding (Internal)

Innovation Idea Unleashed (I2U)

In order to foster a spirit of innovation and to promote creative R & D activities among our students, the R & D wing of Innovation and Entrepreneurship Development Centre (IEDC) of AJCE “Amal Jyothi Scholars’ Community for Inspiring Innovation (ASCII)” is conducting a contest for innovative project ideas. The contest is similar to the ones held in the past six years and is open to all AJCE students, including M.Tech and MCA students.

Sl #	Project	Team	Amount Scanned
1	Help Me Out : Helps in Child Rescue, Women Safety, Evidence in Case of Accidents	Aiswarya Reji, S6 ECE	Rs 10,000
2	E-Beehive Fumigator for The Treatment of Varroa Mite in Honey Bees	Akshay S., S4 ECE	Rs 10,000
3	Green Node-Low-Cost Scalable Module to Prevent Food Spoilage and Enable Asset Tracking of Food	Ajoy K Abraham,S4 ECE	Rs 11,000
4	Electro-Larynx	Anand Vijay, S6 ECE	Rs 10,000
5	Speech Ware	Jacob George, S6 ECE	Rs 10,000
6	A Rice Soup Strainer	Angel Rose, S6 CSE	Rs 15,000

7	IOT Based Copd Alert System	Biby Chacko, S4 IT	Rs 9000
8	Charlie Vector	Rohan Abraham, S6 IT	Rs 2000
9	Web Phone Manager	Liyo Paul, S2 MCA	Rs 1000
10	Restaurant Manager Using Raspberry Pi	Liyo Paul, S2 MCA	Rs 13500
11	Arduino Based Smart Water Tap	Alen Joseph, S4 EEE	Rs 12000
12	Intrm – Intelligent Transportation Rule Management System	Jerald James, S4 AUE	Rs. 12000
13	Concrete Filter	Sumana Nasrin K., S6 CE	Rs. 9000
14	Experimental Study on Prefabricated Ferrocement Structural Elements	Rabeenson Thomas, S2 MTEch, CE	Rs. 15000
15	Biomimicking of Nasal Passage for Air Purification	Fathima, S2 CH	Rs. 10000
16	Edible Food Packaging from Agro Based Products	Nandhumon T.K., S2 CH	Rs. 12000
17	Computational Modelling of A Novel Two-Phase Compressor Design	Sandra Sebastian, S4 CH	Rs. 1000
18	Mixed Mode Solar Dryer With Thermal Energy Storage	Jijo Jose, S6 ME	Rs. 14400
19	Recycling of Fly Ash Through Development of Carbon Fiber Reinforced Polymer Composites	Thomas M Visacanthara, S2 Mtech, ME	Rs. 15000
20	Study of Pcm Effectiveness on PV Efficiency and Its Thermal Utilisation	Sangeeth S., S6 ME	Rs. 15000

21	Variable Resistance Treadmill for Wheelchair	Alvin Tom, S6 ME	Rs 15000
22	Design and Development of a Gamma Type Solar Powered Stirling Engine for Power Generation	Joseph S. Valiyaveettil, S6 ME	Rs. 15000
23	Desalination of Sea Water	Amal Baby, S6 ME	Rs. 15000
24	Tapoica Harvesting Machine	Geo Bijoy, S4 ME	Rs. 11000

9. Exhibitions Participated/Organized

Sl.No	Program	School/ College
1	Science ride in Automobile - I	Amal Jyothi College of Engineering
2	Science ride in Automobile - II	Amal Jyothi College of Engineering
3	Science ride in Automobile - III	Amal Jyothi College of Engineering
4	Science ride in Automobile - IV	Amal Jyothi College of Engineering
5	Kochi Binalle	Cochin
6	Mastermind 2017	Thrissur

10. External Program (Attended as resource person)

Sl #	Topic	Handled by	College
1	How to develop an innovative project	Prof. Abi Varghese	Government Polytechnic College, Palakkad
2	How to develop an innovative project	Prof. Abi Varghese	Government Engineering College, Palakkad
3	Project development and innovation ecosystem development.	Prof. Sherin Sam Jose	Government Engineering College, Palakkad
4	How to develop an innovative project	Prof. Abi Varghese	Government Engineering College, Idukki,
5	How to develop an innovative project	Prof. Abi Varghese	Vijnan Institute of Science and Technology, Ernakulum
6	“ASAP-SMILE	Prof. Abi Varghese	NESTT MUVATTUPUZHA

7	“ASAP-SMILE	Prof. Abi Varghese	General Education Department and Higher Education Department, Government of Kerala
8	Startup initiatives- make it happen	Prof. Jerison Scariah James	Government Engineering College, Palakkad
9	Project development and innovation ecosystem development.	Prof. Sherin Sam Jose	NIT Calicut
10	Idea generation and project development	Prof. Sherin Sam Jose	Merygiry Public school, Trivandrum
11	Role of innovation in Engineering and project development	Prof. Sherin Sam Jose	UKF college of Engineering and Technology.
12	Human beings with innovation, Ethical and Professional Commitment	Prof. Sherin Sam Jose	VKCET, Parippally
13	Project development for development	Prof. Sherin Sam Jose	Vimal Jyothi Engineering College, Chembery
14	Project development and innovation ecosystem development.	Prof. Sherin Sam Jose	Rajagiri School of Engineering, Cochin
15	Project development	Prof. Sherin Sam Jose	Marian Engineering College, Trivandrum
16	Project development	Prof. Sherin Sam Jose	Marian Engineering College, Trivandrum
17	Project development	Prof. Sherin Sam Jose	MBC, Permade
18	Project development and innovation ecosystem development.	Prof. Sherin Sam Jose	Bishop Jerome Institute of Technology, Kollam

12. Mastermind-2018 season -8

It is a project contest conducted by the Top Malayalam news daily, ‘Malayala Manorama’, in association with IEDC of Amal Jyothi. Activities of Season-8 have already started. Fifty projects will be shortlisted (25 from schools & 25 from colleges) for the final round & exhibition. Funds (maximum of Rs 10,000/- for each college-level and Rs 7,500/- for school-level projects) will be given for project development.

13. Technotica - State Level Technical Project Competition

Organized by Startups Valley - TBI in Amal Jyothi College of Engineering, in association with National Institute for Development of Youth (NIDY) & ISTE Kerala Section. It's a state level software project contest for BCA and B.Sc. Computer Science and IT students. The main aim is to equip the students with entrepreneurial skill sets which can lead to a socially relevant sustainable software product.

14. TBI Incubating Companies from AJCE students/alumni

1. Leopard tech labs- projects from Forest and Wildlife department- Expected to be the first one crore company from AJCE.
2. Lotus Technologies- Received a project from abroad- Construction automation.

15. List of Students and Faculty Startups

Sl. No.	Name of Company	CEO	Startup Type
1	Eduknow Techno Solutions	Jithin Sha M A	External
2	Satkriya Healthcare Innovations	Dr. Mohammed Shamnad	External
3	Green Life Engineering Solutions	FaizalMajeed	Student Startup
4	High Tech Agro	Chacko V Thomas	Student Startup
6	Madlabs	Ajo John Mathai	Student Startup
8	Infinitylab	Akshay S	Student Startup
9	Aptinno Technologies	Abi Varghese	Faculty Startup
10	Slash Secure	Nithin Thomas	Student Startup
12	Lotus Technologies	Dhanya Krishnan	Faculty Startup
13	Leopard Tech Labs	Rino Laly	Faculty Startup
14	Kaspe-rob	Githu N S	Faculty Startup
15	Redento Technologies LLP	Subin P George	Faculty Startup
16	AbiamCloud Solutions	Alex Paul Joseph	Student Startup
17	Eloit Innovations Pvt. Ltd.	Thomson Philip	External
18	Tyko	Bobby Isac	Student Startup
19	TNS Security Centre	Liyo Paul	Student Startup
20	Roncyex Ventures	Alexander Francis	External
21	Sansayu Network	Ashwin Joseph Kurian	Student Startup
22	Lealder	Belanove K Binu	Student Startup
23	Mobeyosoft	Thomas V J	External
24	IthihasaInfosystems	Jins Mathew	Faculty Startup
25	I-ERA	Sidharth Mohan Nair	Student Startup
26	Third Eye Technologies	ShahidAhammed C A	Student Startup
27	Zion Motocorp	Tessel M Thomas	Student Startup

16. Expert panel member

- Prof. Sherin Sam Jose has been participated as Expert member to review the funded project proposals on 12th August 2016 at Kalasalingam University.
- Attended third ISBA managers conclave from April 6 -9 ,2017 at Pune
- Attended TBI Manages meeting at Delhi on 27,28,29-4-17

17. Products developed

Name of Company	Domain	Products
Eduknow Techno Solutions	Air Passage Baggage System	Track baggage while in transits
Satkriya Healthcare Innovations Pvt. Ltd.	Healthcare Delivery	Rural Dispensary in private sector
Green Life Engineering Solutions	Architectural Designing	Mud Architecture
High Tech Agro	Computer Aided Agriculture	Full control over agriculture, Digital agriculture, Full sensing and delivery of all necessary nutrients mixed in water
Madlabs	Bot development	Hiring Software, Artificial Intelligence
Infinitylab	Virtual Reality Headset	Virtual Reality Headset Hardware and software
Aptinno Technologies	Product Development	Aptinno, Areinno, Gas Trolley
Slash Secure	Web service	Networkk security consultant & Internet Security
Lotus Technologies	Software development	Development of software for single stop solution for building construction
Leopard Tech Labs Pvt. Ltd.	Web , Android and Communication system implementation.	Website and android app for Indian Snake Rescue Network, Elephant sighting, Wireless video transmission and live streaming in Periyar
Kasperob Robotics Pvt. Ltd.	Robotics	Robotic Kits Development and marketing, Govt. Projects
Redento Technologies LLP	Machine Design, Development & Fabrication	Nano Table, Epilapsy patient mobility assisting device.
Abiam Cloud Solutions	Event Management	Customization of album and events

Eloit Innovations Pvt. Ltd.	Software Development	Ranking of schools and educational institutions, Software to assist accreditation
Tyko	Software and website development	Artificial Intelligence(bots)
TNS Security Centre	Software and website development	Anti virus, Commercial platform, Matrimony site
Roncyex Ventures	Web service	Local listing of commercial shops
Sansayu Network	Web service	Hotel listing
Lealder	Appn& Web development and service	Started incubation
Suvichaar Marine Products Pvt. Ltd.	Food Processing and sales	Started incubation
Mobeyosoft	Appn& Web development and service	Started incubation
Ithihasa Infosystems	Technology Solutions & Data analytics	Started incubation
i-ERA	Home automation	Started incubation
Third Eye Technologies	Hardware Development	Started incubation
Zion Motocorp	Automobile system development	Started incubation