

27	Principles of Management	Entrepreneurship/Startup	Elective/ Core Credit Course	Bachelor	Civil Department	13-01-2020	30-06-2020	170	Offline	66	70	Approved								
28	Advanced Theory and Design of Reinforced Concrete Structures	Innovation	Elective/ Core Credit Course	Master	Civil Department	01-08-2019	16-12-2019	138	Offline	14	55	Approved								
29	Research Methodology	Innovation	Elective/ Core Credit Course	Master	Civil Department	01-08-2019	16-12-2019	138	Offline	14	60	Approved								
30	Advanced Metal Structures	Innovation	Elective/ Core Credit Course	Master	Civil Department	01-08-2019	16-12-2019	138	Offline	14	60	Approved								
31	Experimental Methods and Instrumentation	Innovation	Elective/ Core Credit Course	Master	Civil Department	01-08-2019	16-12-2019	138	Offline	14	60	Approved								
32	Forensic Engineering	Entrepreneurship/Startup	Elective/ Core Credit Course	Master	Civil Department	13-01-2020	30-07-2020	200	Online	14	50	Approved								
33	Municipal Solid waste management	Innovation	Elective/ Core Credit Course	Bachelor	Civil Department	13-01-2020	30-07-2020	200	Online	48	60	Approved								
34	Town and Country planning	Innovation	Elective/ Core Credit Course	Bachelor	Civil Department	13-01-2020	30-07-2020	200	Online	18	50	Approved								
35	Project	Innovation	Elective/ Core Credit Course	Bachelor	Civil Department	01-08-2019	25-05-2020	299	Offline	66	140	Approved								
36	MINI PROJECT	Innovation	Elective/ Core Credit Course	Master	Civil Department	13-01-2020	30-07-2020	200	Offline	14	60	Approved								
37	Thesis	Innovation	Elective/ Core Credit Course	Master	Civil Department	13-01-2020	30-07-2020	200	Offline	24	70	Approved								
38	Design of Hydraulic structures	Innovation	Elective/ Core Credit Course	Bachelor	Civil Department	13-01-2020	30-07-2020	200	Online	66	60	Approved								
39	Theory and Design of Plates and Shells	Innovation	Elective/ Core Credit Course	Master	Civil Department	13-01-2020	30-07-2020	200	Online	14	50	Approved								
40	Theory and design of plate and shells	Innovation	Elective/ Core Credit Course	Master	Civil Department	13-01-2020	30-07-2020	200	Offline	14	50	Approved								

6	Emerging Trends in Information Technology	Innovation	FDP in I&E / IPR	Department of Computer Science and Engineering	13-07-2020	17-07-2020	5	Online	102	30	Approved									
7	FACULTY DEVELOPMENT PROGRAMME ON COMPUTER PROGRAMMING IN C	Innovation	Employment Generation Training Programs	DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING	16-12-2019	20-12-2019	5	Offline	23	35	Approved									
8	FUNDAMENTALS OF COMPUTERS AND NETWORKING	Entrepreneurship/Startup, Innovation	Employment Generation Training Programs	COMPUTER SCIENCE AND ENGINEERING	06-01-2020	09-01-2020	4	Offline	64	32	Approved									
9	Innovative Design and Product Development	Innovation	FDP in I&E / IPR	Department of Electronics and Communication Engineering	08-07-2019	12-07-2019	5	Offline	30	30	Approved									

Section 2 > iii : List the Full Time Faculties had with a Degree (UG/PG/PhD) in Innovation/IPR/Entrepreneurship and (or) Received Specialized Training program of I&E, IPR (MDP, EDP, FDP, Short-term Certificate Course, of minimum 30 hours Duration) conducted by various State, Central Govt. agencies, and Knowledge Agencies in the Academic Period (2019-20)

Srno	Faculty Name	Department/Centre/Unit Name	Designation	Do you have a degree in I&E & IPR?	Had the faculty received training on I&E & IPR during AY 2019-20	Status Phase-1	Reason Phase-1	Comment Phase-1	Document Phase-1	Remarks Phase-1	Status Phase-2	Reason Phase-2	Comment Phase-2	Document Phase-2	Remarks Phase-2
1	Mr. Venugopal N	Department of Mechanical Engineering	Assistant Professor	No	No	Approved			Areas/Validate/Uploads /ARI-C-43606/ARI-C-43606_22-09-2021-09-23-12.pdf	FDP Certificate					
2	Mr. V P Jayaprakash	Department of Computer Science and Engineering	Network Engineer	No	No	Approved			Areas/Validate/Uploads /ARI-C-43606/ARI-C-43606_22-09-2021-09-31-28.pdf	FDP Certificate					

Section 3 > i : List Idea/Innovation Centric Student Clubs Are Functional at the HEI with Access to Co-working Space/Work-stations for Students with Facilities & Equipment Available to promote and Support Innovation, Entrepreneurship and IPR Activities in Campus

Srno	Name of Student Club	Type of Club	Year of Establishment	Type of Facilities Available at the Club	Student Club with Access to Other I&E Facilities at the HEI	No of Programs/Activities Organized by the Student Club During the AY 2019-20	Student Club Team Lead Name	Student Club Team Lead Email	Student Club Team Lead Phone	Status Phase-1	Reason Phase-1	Comment Phase-1	Document Phase-1	Remarks Phase-1	Status Phase-2	Reason Phase-2	Comment Phase-2	Document Phase-2	Remarks Phase-2
1	Robotics Club	Idea Club	2019	3D Printing	Pre-Incubation Unit	0	Mr. U Akshaya	akshayu165492@gmail.com	8921243620	Approved									
2	Makers Club	Innovation Club	2018	Co-working Space,3D Printing	Incubation Unit	1	Sivprasad	sivasbce1998@gmail.com	8921058375	Approved									

Section 3 > ii > a : List the Pre-Incubation Facility (Tinkering Lab/Makers' Space/Design Centre/New Gen IEDC/IEDC/EDC/Innovation Centre/Startup Cell) (>= 600 Sq. Ft. Floor Area)

Sr no	Name of Pre-Incubation Centre	Type of Facility	Year of Establishment	Type of Facilities Available at the Centre	Pre-Incubation with Access to Other I&E Facilities at the HEI	Name of the Funding Schemes Available with Pre-Incubation Unit, if any (Optional)	Facility Details	Total Nos of Dedicated Executive/Management team Strength Engaged at the Facility	Had the Pre-Incubation Unit Provided any Funding Support for Idea/Prototype/Innovation Development and implementation during the Financial Year 2019-20	Had institute Generated Income either from Services Offered by Pre-Incubation Centre/Facilities?	Had institute spent expenses either from own resource/received fund towards Establishment/Operation of Pre-Incubation Centre/Facilities?	Status Phase -1	Reason Phase -1	Comment Phase -1	Document Phase -1	Remarks Phase -1	Status Phase -2	Reason Phase -2	Comment Phase -2	Document Phase -2	Remarks Phase -2
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Section 3 > ii > a : List the Pre-Incubation Facility (Tinkering Lab/Makers' Space/Design Centre/New Gen IEDC/IEDC/EDC/Innovation Centre/Startup Cell) (>= 600 Sq. Ft. Floor Area)

1	Center for Innovation and Research - ME (CIR-ME)	Innovation Centre	2019	Co-working Space, 3D Printing & Prototype Equipment	IPR Cell/Technology Transfer Centre, Student Clubs	IPR Cell/Technology Transfer Centre, Student Clubs	Facility Incubator Name Dr . M Senthil Saravana n	0	No	No	Yes	Approved								
							Facility Incubator Email bhattranitt@gmail.com													
							Facility Incubator Phone 9940236395													

Source of Grant / Fund	Agency Name	Agency Type	Total Grants / Funds Received by Pre-Incubation & Incubation Centre / Facilities exists in Campus (In Rupees)
Funding Agency	Centre for Engineering Research and Development-APJ Abdul Kalam Technological University	Govt. Agency (State)	200000
Funding Agency	Kerala State Council for Science, Technology and Environment (KSCSTE)	Govt. Agency (State)	20000
Institute's Own Fund / Resource	Sree Buddha College of Engineering, Pattoor	Educational Institute	0

Section 3 > iii > b : Provide detail list of External Experts/Agencies engaged as Mentor to help Ideas/Innovations/Startups

12	Dr. Anil Joseph	Idea/Innovation Development	Unstructured Mentorship	Approved										
13	Mr. Sajil Satheek	Idea/Innovation Development	Unstructured Mentorship	Approved										
14	Mr. Amal Prakash	Idea/Innovation Development	Unstructured Mentorship	Approved										

Section 4 : List all the Innovations Generated Developed, Completed and Implemented in Ground with Support of Pre-incubation & Incubation facilities at the HEI and Recognitions Received

Sr no	Name of the Innovation Generated with the Support of HEI	Type of Innovation	Nature of Innovation	Name of the HEI Supported Innovation Development	Innovation Developed by	Stage of Innovation /Stage of TR L it started receiving the Support during the FY 2019 - 20	Stage of Innovation /Stage of TR L reached as on 31st March 2020	Status Pre-Incubation/Incubation Support to Innovation as on 31st March 2020	Had the Innovation Received any Recognition at State, National, International Level Programs during the financial period 2019-20	Had the Innovation Converted into Venture/Start up/SME Unit during the financial period 2019-20	Had Centre/institute provided any Financial support (either own resource or fund received from agencies) in terms of Seed Grant/Fund Support to Idea / Prototype / Innovations Development during the financial period 2019-20	Had the Innovations raised any Seed fund/Angel Investment/VC during the period of receiving pre-incubation/incubation support at your Pre-incubation/incubation or HEI during the financial period 2019-20	Had the Pre-incubation/Incubation Centre/HEI received any income/revenue from Idea/Prototype/Innovations for the pre-incubation/incubation support and the services offered by Pre-incubation/incubation or institute during the financial period 2019	Status Phase-1	Reason Phase-1	Comment Phase-1	Document Phase-1	Remarks Phase-1	Status Phase-2	Reason Phase-2	Comment Phase-2	Document Phase-2	Remarks Phase-2
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1	Concrete roof cooling using nanoparticle coated heat pipes for sustainability	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Faculty	TR L 3 : Applied research. First laboratory or institutes completed; proof of concept.	TR L 4 : Small scale prototype built in a laboratory or environment ("ugly prototype").	Innovation Development Ongoing	Agency Name CERD	Agency Type Govt. Agency (State)	Award / Position / Recognition Secured Research Seed Money	No	200000	No	No	Approved											
Name			Type			Gender			Email			Contact															
Dr. Trijo Tharayil			Faculty			Male			trijotharayil@gmail.com			7736766471															

2	IBF-vehicle: Intelligent balancing Vehicle Frame	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Faculty	TRL 3 : Applied research. First laboratory or y tests complete d; proof of concept.	TRL 4 : Small scale prototype built in a laboratory environment ("ugly prototype").	Innovation Development Ongoing	No	No	No	No	No	Approved										
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Name	Type	Gender	Email	Contact
Dr. M S Senthil Saravanan	Faculty	Male	bhatranitt@gmail.com	9940236395

Name	Type	Gender	Email	Contact
Dr. J B Sajin	Faculty	Male	mechanicalsajin@gmail.com	8248717243

3	Jackfruit dressing machine	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Student-Faculty	TR L 3 : Applied research. First laboratory or y tests completed; proof of concept.	TR L 4 : Small scale prototype built in a laboratory environment ("ugly prototype").	Innovation Development Ongoing	No	No	No	No	No	Approved								
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Name	Type	Gender	Email	Contact
Mr. Vaisakh P S	Faculty	Male	vaisakh.vps@gmail.com	7907918600

Name	Type	Gender	Email	Contact
Dr. J B Sajin	Faculty	Male	mechanicalsajin@gmail.com	8248717243

4	Coconut tree climbing machine	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Student-Faculty	TR L 3 : Applied research. First laboratory tests completed; proof of concept.	TR L 4 : Small scale prototype built in a laboratory environment ("ugly prototype").	Innovation Development Ongoing	No	No	No	No	No	Approved											
Name		Type		Gender		Email				Contact															
Mr. Vaisakh P S		Faculty		Male		vaisakh.vps@gmail.com				7907918600															
5	GoKART	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Student-Faculty	TR L 3 : Applied research. First laboratory tests completed; proof of concept.	TR L 4 : Small scale prototype built in a laboratory environment ("ugly prototype").	Innovation Development Ongoing	No	No	100000		No	No	Approved										
Grant Amount in Rs																									

Name		Type		Gender		Email			Contact												
Dr. M S Senthil Saravanan		Faculty		Male		bhatranitt@gmail.com			9940236395												
6	Quad Bike	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Student-Faculty	TR L 3 : Applied research. First laboratory or y tes com ple te d; pr oo f of co nce p t.	TR L 4 : S mall scale prototy pe bui lt in a lab or at or y en vir on men t ("u gly prototy pe").	Innovation Development Ongoing	No	No	50000	No	No	Approved							
Name		Type		Gender		Email			Contact												
Mr. Sreekumar E N		Faculty		Male		sreekumar.rit@gmail.com			9447781269												

7	Thermal performance analysis of heat pipe with nanoparticle coated wick for concrete roof cooling	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Faculty	TR L 3 : Applied research. First laboratory tests completed; proof of concept.	TR L 4 : Small scale prototype built in a laboratory environment ("ugly prototype").	Innovation Development Ongoing	Agency Name K S C S T E Agency Type Govt. Agency (State) Award / Position / Recognition Secured Seed money	No	Grant Amount in Rs 10000	No	No	Approved									
Name		Type			Gender			Email		Contact													
Dr. Trijo Tharayil		Faculty			Male			trijotharayil@gmail.com		7736766471													

8	Concrete roof cooling using capillary driven heat pipes for sustainability	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Faculty	TR L 3 : Applied research. First lab oratory tests completed; proof of concept.	TR L 4 : Small scale prototype built in a lab oratory environment ("ugly prototype").	Innovation Development Ongoing	Agency Name K S S T E	Agency Type Govt. Agency (State)	Award / Position / Recognition Secured Seed Money	No	Grant Amount in Rs 10000	No	No	Approved										
Name		Type			Gender		Email			Contact																
Dr. Trijo Tharayil		Faculty			Male		trijotharayil@gmail.com			7736766471																

9	Break pad using orange fibre and Al2O3	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Student-Faculty	TR L 2 : Technology for formulation. Concept and application have been formulated.	TR L 3 : Applied research. First laboratory tests completed; proof of concept.	Innovation Development Ongoing	No	No	No	No	No	Approved										
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Name	Type	Gender	Email	Contact
Mr. Ratheesh R	Faculty	Male	ratheeshsbce@gmail.com	9447788628

10	Synthesis of bioplastics with enhanced thermal, mechanical and barrier properties	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Student-Faculty	TR L 2 : Technology for formulation. Concept and application have been formulated.	TR L 3 : Applied research. First laboratory tests completed; proof of concept.	Innovation Development Ongoing	No	No	No	No	No	Approved										
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Name	Type	Gender	Email	Contact
Mr. Kalesh K K	Faculty	Male	kalesh24@gmail.com	9496113281

1 1	Supercapacitor electrode from biomaterials	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Student-Faculty	TR L 2 : Technology for formulation. Concept and application have been formulated.	TR L 3 : Applied research. First laboratory tests completed; proof of concept.	Innovation Development Ongoing	No	No	No	No	No	Approved											
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Name		Type	Gender	Email	Contact
Dr. J B Sajin		Faculty	Male	mechanicalsajin@gmail.com	8248717243

1 2	Design and development of low fume welding electrodes	Product Innovation	Technological	Center for Innovation and Research-ME (CIR-ME)	Student-Faculty	TR L 2 : Technology for formulation. Concept and application have been formulated.	TR L 3 : Applied research. First laboratory tests completed; proof of concept.	Innovation Development Ongoing	No	No	No	No	No	Approved											
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Name		Type	Gender	Email	Contact
Mr. Hari Krishnan G		Faculty	Male	harikrishnangs24@gmail.com	9496992393

Student research fund · Best paper award · Socopus Indexed Conference paper
 Award / Position / Record

Name	Type	Gender	Email	Contact
REGI P MOHAN	Faculty	Female	ce.regipm@sbcemail.in	9995114990

Name	Type	Gender	Email	Contact
ANSU J LALU	Student	Female	ansu.j.lalu@gmail.com	8848504486

Name	DIN number	Type	Gender	Email	Contact
Bilal Bin Nazar	08531590	Student	Male	bilal@crypt4bits.com	9847505594

Section 7 > i : List all the Collaborations with External Agencies and Co-Creation of I&E Activities by the HEI

Srno	Collaborated Agency Name	Collaborated Agency Type	Purpose of Collaboration	Type of Support Offered	No. of Student Projects / Ideas / Innovations / Startups from the HEI get benefited through this partnership	Date of MOU / Agreement Signed on	Status Phase-1	Reason Phase-1	Comment Phase-1	Document Phase-1	Remarks Phase-1	Status Phase-2	Reason Phase-2	Comment Phase-2	Document Phase-2	Remarks Phase-2
1	M/S Sarathy Auto Cars, Kollam	Non-Govt. Agencies	Collaboration with Startups/Industry Associations/Knowledge Agencies to Promote I&E Activities and/or Internship Opportunities	Mentoring	1	25-10-2019	Approved									
2	Noorul Islam Centre For Higher Education, Kanyakumari	Educational Institute	Collaboration with Startups/Industry Associations/Knowledge Agencies to Promote I&E Activities and/or Internship Opportunities	Mentoring	1	01-06-2019	Approved									
3	Logix Space Technologies	Corporate / Industry Association	Collaboration with Startups/Industry Associations/Knowledge Agencies to Promote I&E Activities and/or Internship Opportunities	Mentoring	4	03-10-2019	Approved									
4	Zeropi Technologies Pvt Ltd	Corporate / Industry Association	Providing (or) Receiving Mentor and Handholding Support to Support I&E Activities	Mentoring	5	14-10-2019	Approved									
5	Crypt4bits Pvt Limited	Educational Institute	Providing (or) Receiving Mentor and Handholding Support to Support I&E Activities	Mentoring, Networking	3	04-10-2019	Approved									
6	ATHUL ENERGY CONSULTANTS PVT. LTD THRISSUR	Non-Govt. Agencies	Collaboration with Startups/Industry Associations/Knowledge Agencies to Promote I&E Activities and/or Internship Opportunities	Mentoring	0	18-09-2019	Approved									
7	Ayner Engineers and MEP Consultants, Cochin	Non-Govt. Agencies	Providing (or) Receiving Mentor and Handholding Support to Support I&E Activities	Mentoring	0	19-09-2019	Approved									

Section 8 > ii : List the IPs Filed/Published/Granted (Copyright & Designs Only) by the HEI as an Applicant / Co-applicant / Co-owner

No Data Filled!

Section 8 > iii : List the IP (Patents only) Filed by the HEI as Applicant / Co-applicant / Co-owner

Srno	Title/Name of Patent	IP Registration Number	Date of Filed/Published (Year, Month)	Application Level	Copy of receipt / application screenshot [PDF or Image]	Status Phase-1	Reason Phase-1	Comment Phase-1	Document Phase-1	Remarks Phase-1	Status Phase-2	Reason Phase-2	Comment Phase-2	Document Phase-2	Remarks Phase-2
1	IBF-VEHICLE: INTELLIGENT-BALANCING VEHICLE FRAME	202011006274A	National	2020 - 02	Uploaded	Approved									

Section 8 > v : List the IPs hold by the Innovation teams/Startups Incubated at the Pre-incubation/incubation Unit of the HEI

No Data Filled!

Section 8 > vi : List the IP Commercialized/Transferred Published & Granted to HEI as Co-applicant/Co-owner

No Data Filled!

Declaration

To,
The ARIIA Committee
MHRD's Innovation Cell
New Delhi

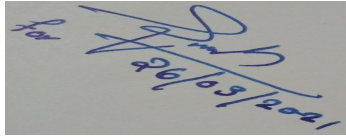
Joint Declaration by the Head of the Institute and Nodal Officer

Dear Sir,

Herewith, myself Dr. Saji Varghese (Head of Institute) and Dr. Trijo Tharayil (Nodal Officer) jointly declaring on behalf of our institute is that all the information submitted are true and correct to best of our knowledge.

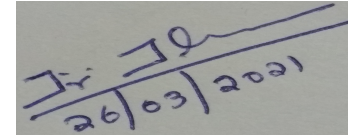
Thank you

The Head of Institute



Dr. Saji Varghese
Head of the Institution,
Alappuzha, Kerala

Nodal officer



Dr. Trijo Tharayil
Nodal Officer,
Alappuzha, Kerala