



Submitted Institute Data for Atal Ranking of Institutions on Innovation Achievements (ARIIA) - 2020-21

Institute Name: SREE BUDDHA COLLEGE OF ENGINEERING, PATTOOR [ARI-C-43606]

List all the departments / centers / units are part of innovation and startup ecosystem of the institite

Department / Center / Unit Name	Type of Department / Center / Unit	Mention the Stream / Discipline / Sector of focus	Department / Center / Unit Level	Program Type	Student / Benificiary Strength (2019-20)	Academic Staff Strength (2019-20)	Non-academic Staff Strength (2019-20)
Department of Mechanical Engineering	Academic Department with lab facility	Mechanical Engineering	UG / PG / PhD	Technical	420	26	9
Department of Biotechnology and Biochemical Engineering	Academic Department with lab facility	Biotechnology and Biochemical Engineering	UG / PG / PhD	Technical	140	10	3
Department of Computer Science and Engineering	Academic Department with lab facility	Computer Science and Engineering	UG / PG / PhD	Technical	233	13	4
Department of Electrical and Electronics Engineering	Academic Department with lab facility	Electrical and Electronics Engineering	UG / PG / PhD	Technical	107	10	3
Department of Electronics and Communication Engineering	Academic Department with lab facility	Electronics and Communication Engineering	UG / PG / PhD	Technical	94	11	3
Department of Civil Engineering	Academic Department with lab facility	Civil Engineering	UG / PG / PhD	Technical	289	15	4
Center for Innovation and Research- SBCE (CIR-SBCE)	Research Unit / Park	Multidisciplinary	UG / PG / PhD	Technical	1283	85	26
Center for Innovation and Research- ME (CIR-ME)	Research Unit / Park	Mechanical Engineering	UG / PG / PhD	Technical	420	26	9
Center for Innovation and Research- CE (CIR-CE)	Research Unit / Park	Civil Engineering	UG / PG / PhD	Technical	289	15	4
Innovation and Entrepreneurship Development Centre (IEDC)	Pre-incubation unit	Multidisciplinary	UG / PG / PhD	Technical	1283	85	26
IPR Cell SBCE	IPR Cell / Patent Facilitation Unit / Technology Transfer Centre	Multidisciplinary	UG / PG / PhD	Technical	1283	85	26
Industry Institute Interaction Cell (IIIC)	Industry Institute Interface Unit	Multidisciplinary	UG / PG / PhD	Technical	1283	85	26
Sree Buddha Incubation Center (SBIC)	Incubation Unit	Multidisciplinary	UG / PG / PhD	Both	1283	85	26
Mathematics and Basic Sciences	Academic Department with lab facility	Mathematics and Basic Sciences	UG / PG / PhD	Technical	727	11	1

Participation of HEI in Innovation & Entrepreneurship Initiatives of Ministry of Education (Till Today)

Programs/Initiatives	Status	Registration ID
Adopted National Innovation and Start-up Policy at the HEI	Yes	Not Required
Establishment of Institution's Innovation Council (IIC) at HEI	Yes	IIC Registration ID : IC201811446
Trained Innovation Ambassadors at HEI	No	Not Required
Participation in Smart India Hackathon (SIH)	Yes	Not Required
Facilitated listing start-ups/ technologies in Young India combating COVID with Knowledge, Technology and Innovation (YUKTI 2.0) portal of MIC	No	Not Required
Participation in National Education Alliance of Technology (NEAT)	No	Not Required

Srno	Name of Program (Full Name)	Program Theme	Program Type	Program Category	Organizin g Departm ent / Centre / Student Body Name	Program Start Date	Program End Date	Program Duration(i n Days)	Program Location	Internal Participa nts (Student)	Internal Participa nts (Faculty)	External Participa nts (Student)	External Participa nts (Faculty)	Total Number of Participa nts	Had institute spent expenses either from own resource/received fund to organise the program/activity/event?	Did any of the participants received any awards/recognition for startup / innovation ideas / research?
1	Challeng es in Biopolym er Productio n	Innovatio n	Worksho p	Institute Lead Activity	Departm ent of Biotechn ology and Biochemi cal Engineeri ng	28-10-20 19 00:00:00	28-10-20 19 00:00:00	1	Within Campus	140	10	0	0	150	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
2	National Pollution Preventio n Day	Innovatio n	Awarene ss	Institute Lead Activity	Departm ent of Biotechn ology and Biochemi cal Engineeri ng	02-11-20 19 00:00:00	02-11-20 19 00:00:00	1	Within Campus	65	9	0	0	74	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
3	TWO DAY WORKS HOP ON INNOVA TION LEADER SHIP AND CREATIV ITY	Entrepre neurship/ Startup	Worksho p	Institute Lead Activity	Innovatio n and Entrepre neurship Develop ment Club	26-04-20 19 00:00:00	27-04-20 19 00:00:00	2	Within Campus	25	2	0	0	27	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
4	TWO DAY WORKS HOP ON FOUNDA TION SKILLS ON ENTREP RENEUR SHIP	Entrepre neurship/ Startup	Worksho p	Institute Lead Activity	INNOVA TION AND ENTREP RENEUR SHIP DEVELO PMENT CLUB	21-08-20 19 00:00:00	22-08-20 19 00:00:00	2	Within Campus	23	1	4	0	28	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No

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5	PROBLE M SOLVIN G THROUG H PYTHON	Entrepre neurship/ Startup	Skill developm ent	Institute Lead Activity	INNOVA TION AND ENTREP RENEUR SHIP DEVELO PMENT CLUB	14-10-20 19 00:00:00	14-10-20 19 00:00:00	1	Within Campus	35	3	0	0	38	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
6	MOBILE APP DEVELO PMENT USING FLUTTE R	Entrepre neurship/ Startup	Skill developm ent	Student Lead Activity	DEPART MENT OF COMPUT ER SCIENC E AND ENGG ALONG WITH ICFOSS	28-10-20 19 00:00:00	28-10-20 19 00:00:00	1	Within Campus	35	0	0	0	35	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
7	A PEEK INTO THE WORLD OF IOT, DATA SCIENC E AND AI	Innovatio n	Awarene ss	Student Lead Activity	DEPART MENT OF COMPUT ER SCIENC E AND ENGINE ERING	07-08-20 19 00:00:00	07-08-20 19 00:00:00	1	Within Campus	123	8	0	0	131	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
8	Recent Advance s in Mechanic al Engineeri ng (RAME 2019)	Innovatio n	Conferen ce	Institute Lead Activity	Departm ent of Mechanic al Engineeri ng	18-06-20 19 00:00:00	18-06-20 19 00:00:00	1	Within Campus	51	23	76	9	159	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	Award / Position / Recognition / Recognition Secured Title of Innovation / Start-up Secured the Award / Recognition Award/Recognition/Achieve ment Received for Award / Received for
9	Technolo gy and Innovatio n	Innovatio n	Awarene ss	Institute Lead Activity	Departm ent of Mechanic al Engineeri ng	15-10-20 19 00:00:00	15-10-20 19 00:00:00	1	Outside Campus	0	2	50	10	62	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
10	Student conventio ns program mes of SAE	Innovatio n	Innovatio n Contest	Institute Lead Activity	Departm ent of Mechanic al Engineeri ng	14-01-20 20 00:00:00	14-01-20 20 00:00:00	1	Within Campus	20	3	0	0	23	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No

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11	Role of electronic s and software in automotiv e advance ment	Innovatio n	Motivatio nal speak	Institute Lead Activity	Departm ent of Mechanic al Engineeri ng	03-03-20 20 00:00:00	03-03-20 20 00:00:00	1	Within Campus	50	20	0	0	70	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
12	ANSYS	Innovatio n	Worksho p	Institute Lead Activity	Departm ent of Mechanic al Engineeri ng	05-03-20 20 00:00:00	05-03-20 20 00:00:00	1	Within Campus	120	6	0	0	126	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
13	Bioenterp reneurshi p- Opportun ities and Challene ges	Entrepre neurship/ Startup	Motivatio nal speak	Student Lead Activity	Departm ent of Biotechn ology and Biochemi cal Engineeri ng	05-02-20 20 00:00:00	05-02-20 20 00:00:00	1	Within Campus	98	7	0	0	105	No	No
14	Time T4 Travel 2020-	Innovatio n	Innovatio n Contest	Student Lead Activity	Departm ent of Biotechn ology and Biochemi cal Engineeri ng	28-02-20 20 00:00:00	28-02-20 20 00:00:00	1	Within Campus	10	5	0	0	15	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
15	Robotic Design and Product Develop ment	Innovatio n	Worksho p	Student Lead Activity	Departm ent of Electroni cs and Communi cation Engineeri ng	25-10-20 19 00:00:00	26-10-20 19 00:00:00	2	Within Campus	60	0	11	0	71	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
16	Shastra 2019	Innovatio n	Innovatio n Contest	Student Lead Activity	Departm ent of Electroni cs and Communi cation Engineeri ng	15-10-20 19 00:00:00	15-10-20 19 00:00:00	1	Within Campus	0	0	40	0	40	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	Award / Position / Recognition Secured Title of Innovation / Start-up Secured the Award / Recognition Award/Recognition/Achieve ment Received for

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17	Introduct ory workshop in Arduino and Sensors	Innovatio n	Skill developm ent	Institute Lead Activity	Departm ent of Electroni cs and Communi cation Engineeri ng	06-01-20 20 00:00:00	08-01-20 20 00:00:00	3	Within Campus	30	0	0	0	30	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
18	IEE AWARE NESS PROGRA MME	Innovatio n	Awarene ss	Institute Lead Activity	DEPART MENT OF ELECTRI CAL AND ELECTR ONICS ENGINE ERING	23-11-20 19 00:00:00	23-11-20 19 00:00:00	1	Within Campus	52	1	0	0	53	No	No
19	PES QUIZ 2019	Innovatio n	Skill developm ent	Institute Lead Activity	DEPART MENT OF ELECTRI CAL AND ELECTR ONICS ENGINE ERING	01-10-20 19 00:00:00	01-10-20 19 00:00:00	1	Within Campus	70	5	0	0	75	No	No
20	KNOW YOUR BRANCH BE A STEP AHEAD	Innovatio n	Awarene ss	Institute Lead Activity	DEPART MENT OF ELECTRI CAL AND ELECTR ONICS ENGINE ERING	09-01-20 20 00:00:00	10-01-20 20 00:00:00	2	Within Campus	12	8	0	0	20	No	No
21	POWER QUIZ	Innovatio n	Awarene ss	Institute Lead Activity	DEPART MENT OF ELECTRI CAL AND ELECTR ONICS ENGINE ERING	03-10-20 19 00:00:00	03-10-20 19 00:00:00	1	Within Campus	90	1	0	0	91	No	No
22	ELECTRI C VEHICLE S FOR SUSTAIN ABLE ENVIRO NMENT	Innovatio n	Awarene ss	Institute Lead Activity	DEPART MENT OF ELECTRI CAL AND ELECTR ONICS ENGINE ERING	30-10-20 19 00:00:00	30-10-20 19 00:00:00	1	Within Campus	75	1	0	0	76	No	No
23	AUTOCA D- ELECTRI CAL SOFTWA RE	Innovatio n	Skill developm ent	Institute Lead Activity	DEPART MENT OF ELECTRI CAL AND ELECTR ONICS ENGINE ERING	13-02-20 20 00:00:00	13-02-20 20 00:00:00	1	Within Campus	15	1	0	0	16	No	No

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24	Recent trends in Civil Engineeri ng	Innovatio n	Seminar	Institute Lead Activity	Departm ent of Civil Engineeri ng	21-10-20 19 00:00:00	21-10-20 19 00:00:00	1	Within Campus	290	15	0	0	305	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
25	Future Fit # 3: Towards a new philosoph y of constructi on	Innovatio n	Mentorin g Session	Institute Lead Activity	Departm ent of Civil Engineeri ng	15-11-20 19 00:00:00	15-11-20 19 00:00:00	1	Within Campus	171	15	0	0	186	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
26	Revit software training	Innovatio n	Worksho p	Institute Lead Activity	Center for Innovatio n and Research , CE	13-02-20 20 00:00:00	14-02-20 20 00:00:00	2	Within Campus	66	15	0	0	81	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
27	Fundame ntals of Structural Analysis	Innovatio n	Seminar	Institute Lead Activity	Departm ent of Civil Engineeri ng	20-02-20 20 00:00:00	20-02-20 20 00:00:00	1	Within Campus	55	15	0	0	70	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
28	Innovativ e technolog ies in Computin g, Embedde d and power engineeri ng	Innovatio n	Conference	Institute Lead Activity	Departm ent of Electroni cs and Communi cation	08-05-20 19 00:00:00	09-05-20 19 00:00:00	2	Within Campus	20	3	5	2	30	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	No
29	Recent Advance s in Mechanic al Engineeri ng (RAME 2019)	Innovatio n	Conferen	Institute Lead Activity	Departm ent of Mechanic al Engineeri ng	18-06-20 19 00:00:00	18-06-20 19 00:00:00	1	Within Campus	51	23	76	9	159	Total Expense Amount Incurred by Institute to Organise the Program (In Rupees)	Award / Position / Recognition Secured Title of Innovation / Start-up Secured the Award / Recognition Award/Recognition/Achieve ment Received for Award / Research Paper/Work

Srno	Name of Program (Full Name)	Program Theme	Program Type	Organizin g Agency / Institute Name	Organizin g Agency Type	Program Start Date	Program End Date	Program Duration(i n Days)	Participa nts (Students)	Participa nts (Faculty)	Total Number of Participa nts	Awards/R ecognitio ns/Achiev ements	Award / Position / Recogniti on Secured	Title of Innovation / Start-up Secured the Award / Recognition	Had institute spent expenses either from own resource/ received fund towards sending delegation to participate / represent the activity /event?	Did any of the participants received any awards/recognition for startup / innovation ideas / research
1	Current trend in surface modificati on process of Bio- implants and FEA applicatio n in orthopedi cs	Innovatio n	Worksho p	Muthaya mmal Engineeri ng College, Nammak kal, Tamil Nadu	Educatio nal Institute	04-11-20 19 00:00:00	06-11-20 19 00:00:00	3	0	2	2	No			No	No
2	Recent advances in composit e materials	Innovatio n	Skill developm ent	Vidya Academy of Science and Technolo gy Technical Campus, Kilimano or, Kerala	Educatio nal Institute	16-12-20 19 00:00:00	18-12-20 19 00:00:00	3	0	3	3	No			No	No
3	Nanotech nilogy to Nano Tribology	Innovatio n	Skill developm ent	Governm ent Engineeri ng College, Kozhikod e	Educatio nal Institute	06-01-20 20 00:00:00	11-01-20 20 00:00:00	6	0	2	2	No			No	No
4	Industrial Automati on	Innovatio n	Skill developm ent	College of Engineeri ng, Trivandru m	Educatio nal Institute	30-12-20 19 00:00:00	04-01-20 20 00:00:00	6	0	5	5	No			No	No
5	Teaching learning process	Innovatio n	Skill developm ent	Malabar Institute of Technolo gy, Kannur	Educatio nal Institute	30-12-20 19 00:00:00	01-01-20 20 00:00:00	3	0	1	1	No			No	No
6	NBA accreditat ion	Innovatio n	Worksho p	Marian Manage ment Institute, Peerume de, Kerala	Educatio nal Institute	06-02-20 20 00:00:00	06-02-20 20 00:00:00	1	0	2	2	No			No	No

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7	Reboot Kerala Hackatho n	Innovatio n	Hackatho n	Departm ent of Higher Educatio n, Kerala	Govt. Agency (State)	28-02-20 20 00:00:00	01-03-20 20 00:00:00	3	12	0	12	No			TotalTotal Expense Amount Incurred by Institute? (In Rupees)	9600	No
8	ICTAK Techathl on	Innovatio n	Innovatio n Contest	ICT Academy of Kerala	Govt. Agency (State)	05-03-20 20 00:00:00	06-03-20 20 00:00:00	2	4	1	5	No			TotalTotal Expense Amount Incurred by Institute? (In Rupees)	5000	No
9	Project EXERGY 2020	Innovatio n	Innovatio n Contest	College of Applied Science Adoor	Educatio nal Institute	10-02-20 20 00:00:00	10-02-20 20 00:00:00	1	2	0	2	Yes	First	Speak Up App	TotalTotal Expense Amount Incurred by Institute? (In Rupees)	1800	Award / Position / Recognition Secured Title of Innovation / Start-up Secured the Award / Recognition Award/Recognition/Achieve ment Received for
10	Project EXERGY 2020	Innovatio n	Innovatio n Contest	College of Applied Science Adoor	Educatio nal Institute	10-02-20 20 00:00:00	10-02-20 20 00:00:00	1	2	0	2	Yes	Second prize	Mr. Saver (Hardwar e)	TotalTotal Expense Amount Incurred by Institute? (In Rupees)	1800	Award / Position / Recognition Secured Title of Innovation / Start-up Secured the Award / Recognition Award/Recognition/Achieve ment Received for
11	Young innovator s Meet Facilitator s Worksho P	Entrepre neurship/ Startup	Skill developm ent	ICT Academy Kerala	Govt. Agency (State)	02-12-20 19 00:00:00	03-12-20 19 00:00:00	2	0	1	1	No			No		No
12	KPIT Sparkle 2020	Entrepre neurship/ Startup	Innovatio n Contest	KPIT	Corporat e / Industry Associati on	25-11-20 19 00:00:00	25-11-20 19 00:00:00	1	4	0	4	No	-		TotalTotal Expense Amount Incurred by Institute? (In Rupees)	8000	No

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13	KTU NSS Cell Project Competiti on	Innovatio n	Innovatio n Contest	Kerala Technolo gical Universit y	Govt. Agency (State)	21-06-20 19 00:00:00	21-06-20 19 00:00:00	1	4	0	4	No			No	No
14	Young Innovator s Program 2019	Entrepre neurship/ Startup	Innovatio n Contest	Kerala Develop ment and Innovatio n Strategic Council	Govt. Agency (State)	02-11-20 19 00:00:00	02-11-20 19 00:00:00	1	8	0	8	No			No	No
15	iBETO 2019	Innovatio n	Innovatio n Contest	Model Engineeri ng college Kochi	Educatio nal Institute	02-11-20 19 00:00:00	02-11-20 19 00:00:00	1	5	0	5	No			No	No
16	Hack Camp	Innovatio n	Hackatho n	Hack Club	Corporat e / Industry Associati on	08-02-20 20 00:00:00	08-02-20 20 00:00:00	1	8	0	8	No	-	-	No	No
17	Hakuna Matata	Innovatio n	Ideation	Sri Sairam Engineeri ng College	Educatio nal Institute	20-09-20 19 00:00:00	21-09-20 19 00:00:00	2	4	0	4	No			TotalTotal Expense Amount Incurred by Institute? (In Rupees)	No
18	Github and Latex	Innovatio n	Skill developm ent	Sree Ayyappa College and ICFOSS	Educatio nal Institute	10-01-20 20 00:00:00	11-01-20 20 00:00:00	2	2	0	2	No			No	No
19	Five day FDP on Compute r Program ming in C	Innovatio n	Worksho p	Sree Buddha College of Engineeri ng, pattoor, Alappuzh a	Educatio nal Institute	16-12-20 19 00:00:00	20-12-20 19 00:00:00	5	0	2	2	No			No	No
20	NPTEL Online certificati on	Innovatio n	Awarene ss	IIT Kharagpu r	Govt. Agency (Central)	01-07-20 19 00:00:00	31-10-20 19 00:00:00	12	0	1	1	No			No	No
21	Water Thoughts - A journey through water builtscap es	Innovatio n	Training	TKM COLLEG E OF ENGINE ERING, KOLLAM, KERALA	Educatio nal Institute	15-07-20 19 00:00:00	19-07-20 19 00:00:00	5	0	1	1	No			No	No

22	AICTE Quality Initiatives , National Initiatives for	Innovatio n	Training	AICTE, MINISTR Y OF HRD	Govt. Agency (Central)	06-03-20 20 00:00:00	06-03-20 20 00:00:00	1	0	1	1	No	 	No	No
	Technical Teachers Training and NEAT														

List the Academic Programs on Innovation, IPR and Entrepreneurship Development Offered During the Academic Period (2019-20)

Srno	Title of Course/Subject Offered	Program Theme	Type of Course	Course Offering Department/Centr e/Unit Name	Level of Course	Program Start Date	Program End Date	Program Duration(in Days)	Mode of Delivery	Total Numbers of Participants	Total Numbers of Contact Hours of Course (Minimum 30 Contact hours)
1	Marketing management	Entrepreneurship/Startup, Innovation	Elective/Core Credit Course	Bachelor	Department of Mechanical Engineering	01-08-2019	31-12-2019	153	Offline	60	45
2	Automobile Engineering	Innovation	Elective/Core Credit Course	Bachelor	Department of Mechanical Engineering	01-01-2020	25-05-2020	146	Offline	60	45
3	Micro and nano manufacturing systems	Innovation	Elective/Core Credit Course	Bachelor	Department of Mechanical Engineering	01-01-2020	25-05-2020	146	Offline	60	45
4	Project	Innovation	Elective/Core Credit Course	Bachelor	Department of Mechanical Engineering	01-08-2019	25-05-2020	299	Offline	120	80
5	Design Project	Innovation	Elective/Core Credit Course	Bachelor	Department of Mechanical Engineering	01-08-2019	31-12-2019	153	Offline	82	45
6	Design Engineering	IPR, Innovation	Elective/Core Credit Course	Bachelor	Department of Mechanical Engineering	01-01-2020	25-05-2020	146	Offline	82	45
7	Research methodology	Innovation	Elective/Core Credit Course	Master	Department of Mechanical Engineering	01-08-2019	31-12-2019	153	Offline	1	45
8	Sustainable energy processes	Innovation	Elective/Core Credit Course	Bachelor	Department of Mechanical Engineering	01-01-2020	25-05-2020	146	Offline	60	45
9	Project	Innovation	Elective/Core Credit Course	Bachelor	Department of Biotechnolog y and Biochemical Engineering	16-12-2019	10-08-2020	239	Offline	34	50

10	Design project	Innovation	Elective/Core Credit Course	Bachelor	Department of Biotechnolog y and Biochemical Engineering	01-08-2019	31-12-2019	153	Offline	29	45
11	Principles of Management	IPR, Entrepreneurship/Startup	Elective/Core Credit Course	Bachelor	Department of Computer Science and Engineering	03-01-2019	19-04-2019	107	Offline	60	60
12	Design Project	Innovation	Elective/Core Credit Course	Bachelor	Department of Computer Science and Engineering	01-08-2019	31-12-2019	153	Offline	75	60
13	Business Economics	IPR	Elective/Core Credit Course	Bachelor	Department of Computer Science and Engineering	01-08-2019	31-12-2019	153	Online	47	60
14	Life Skills	Entrepreneurship/Startup	Elective/Core Credit Course	Bachelor	Department of Computer Science and Engineering	01-08-2019	31-12-2019	153	Online	64	45
15	Project	Innovation	Elective/Core Credit Course	Bachelor	Department of Computer Science and Engineering	31-12-2019	20-05-2020	142	Offline	60	35
16	Energy Management and Auditing	Innovation	Elective/Core Credit Course	Bachelor	DEPARTME NT OF ELECTRICA L AND ELECTRONI CS ENGINEERI NG	13-02-2020	26-06-2020	135	Offline	28	45
17	Power Quality	Innovation	Elective/Core Credit Course	Bachelor	DEPARTME NT OF ELECTRICA L AND ELECTRONI CS ENGINEERI NG	19-08-2019	29-11-2019	103	Offline	28	45
18	Civil Engineering Drafting	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	01-09-2019	15-12-2019	106	Offline	55	70
19	Advanced Concrete Technology	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	01-08-2019	15-12-2019	137	Offline	46	45
20	Environment Impact and Assessment	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	01-08-2019	16-12-2019	138	Offline	29	45
21	Design of Steel structures	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	01-08-2019	16-12-2019	138	Offline	66	70
22	Highway Pavement Design	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	01-08-2019	16-12-2019	138	Offline	37	70
23	Advanced Foundation Engineering	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	01-08-2019	16-12-2019	138	Offline	14	45
24	Design project	Entrepreneurship/Startup	Elective/Core Credit Course	Bachelor	Civil Department	01-08-2019	16-12-2019	138	Offline	66	45
25	Life skills	Entrepreneurship/Startup	Elective/Core Credit Course	Bachelor	Civil Department	01-08-2019	16-12-2019	138	Offline	55	70

26	Business Economics	Entrepreneurship/Startup	Elective/Core Credit Course	Bachelor	Civil Department	01-08-2019	16-12-2019	138	Offline	55	50
27	Principles of Management	Entrepreneurship/Startup	Elective/Core Credit Course	Bachelor	Civil Department	13-01-2020	30-06-2020	170	Offline	66	70
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
29	Research Methodology	Innovation	Elective/Core Credit Course	Master	Civil Department	01-08-2019	16-12-2019	138	Offline	14	60
30	Advanced Metal Structures	Innovation	Elective/Core Credit Course	Master	Civil Department	01-08-2019	16-12-2019	138	Offline	14	60
31	Experimental Methods and Instrumentation	Innovation	Elective/Core Credit Course	Master	Civil Department	01-08-2019	16-12-2019	138	Offline	14	60
32	Forensic Engineering	Entrepreneurship/Startup	Elective/Core Credit Course	Master	Civil Department	13-01-2020	30-07-2020	200	Online	14	50
33	Municipal Solid waste management	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	13-01-2020	30-07-2020	200	Online	48	60
34	Town and Country planning	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	13-01-2020	30-07-2020	200	Online	18	50
35	Project	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	01-08-2019	25-05-2020	299	Offline	66	140
36	MINI PROJECT	Innovation	Elective/Core Credit Course	Master	Civil Department	13-01-2020	30-07-2020	200	Offline	14	60
37	Thesis	Innovation	Elective/Core Credit Course	Master	Civil Department	13-01-2020	30-07-2020	200	Offline	24	70
38	Design of Hydraulic structures	Innovation	Elective/Core Credit Course	Bachelor	Civil Department	13-01-2020	30-07-2020	200	Online	66	60
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
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
41	Advanced Design of Substructures	Innovation	Elective/Core Credit Course	Master	Civil Department	13-01-2020	30-07-2020	200	Offline	14	50
42	High Rise Structures	Innovation	Elective/Core Credit Course	Master	Civil Department	01-08-2019	15-12-2019	137	Offline	24	50
43	Sustainable Construction	Innovation	Elective/Core Credit Course	Master	Civil Department	01-08-2019	15-12-2019	137	Offline	24	50
44	Life Skills	Entrepreneurship/Startup, Innovation	Elective/Core Credit Course	Bachelor	Department of Mechanical Engineering	01-08-2019	31-12-2020	519	Offline	82	45

LiList the Employment Generation Skill Development Programs Organized by the HEI on Innovation, IPR and Entrepreneurship Development During the Academic Period (2019-20)

Srno	Title of the Training Program	Program Theme	Type of Course	Course Offering Department/Centre/ Unit Name	Program Start Date	Program End Date	Program Duration(in Days)	Mode of Delivery	Total Numbers of Participants	Total Numbers of Contact Hours of Course (Minimum 30 Contact hours)
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1	Advanced Material Processing Technologies	Innovation	FDP in I&E / IPR	Department of Mechanical Engineering	08-07-2019	12-07-2019	5	Offline	30	35
2	Mathematics for Engineering research	Innovation	FDP in I&E / IPR	Mathematics and Basic Sciences	10-08-2020	14-08-2020	5	Online	121	35
3	Futuristic research areas in Mechanical Engineering	Innovation	FDP in I&E / IPR	Department of Mechanical Engineering	21-07-2020	25-07-2020	5	Online	51	35
4	Current Environmental Impacts and Sustainable Research Solutions	Innovation	FDP in I&E / IPR	Department of Biotechnology and Biochemical Engineering	21-07-2020	27-07-2020	7	Online	72	35
5	Research Methodology and Scientific Writing	IPR	FDP in I&E / IPR	IQAC	29-06-2020	02-07-2020	4	Online	168	35
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
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
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
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

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
1	Mr. Alex V	Department of Electronics and Communication Engineering	Assistant Professor	No	No
2	Mr. Venugopal N	Department of Mechanical Engineering	Assistant Professor	No	No
3	Mr. V P Jayaprakash	Department of Computer Science and Engineering	Network Engineer	No	No
4	Mr. Gopu Darsan	Department of Computer Science and Engineering	Assistant Professor	No	No

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/Activiti es 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
1	Robotics Club	Idea Club	2019	3D Printing	Pre-Incubation Unit	0	Mr. U Akshay	akshayu165492@gmai I.com	8921243620

2	Makers	Club		Innova	ation Club		2018	Co-working Space Printing	,3D	Incubation U	nit 1	1	Sivaprasad	raprasad sivasbo		3@gmail.c om	8921058375
List the	e Pre-Incul	ation Facilit	y (Tink	ering	j Lab/Make	rs' Space/	Design Centr	e/New Gen IEDC/I	EDC/	/EDC/Inno	ovatio	on Centre/Sta	rtup Cell)) (>= 6	600 Sq. F	t. Floor	Area)
Srno	Name of Pre Incubation Ce		Yea Establi nt	ishme	Type of Facilities Available at the Centre	Pre-Incubation with Access Other I&E Facilities at the HEI	to Schemes Available	Facility Details	Tota Exec team	al Nos of Dedi cutive/Manage Strength Enga the Facility	aged at	Had the Pre-Incul Unit Provided a Funding Suppor Idea/Prototype/In on Development implementation o the Financial Y 2019-20	any t for Genovati eith	Had ins enerated her from Offered b Incuba entre/Fa	I Income Services by Pre- ation	from own towards E	te spent expenses either resource/received fund istablishment/Operation libation Centre/Facilities?
1	Center for Innovation and Research- ME (CIR-ME)	Innovation Centre	2019		Co-working Space,3D Printing & Prototype Equipment	IPR Cell/Technolo Transfer Centre,Studer Clubs	ogy Transfer	Facility Incharge Name Facility Senthil Sarava nan Facility Incharge Email Facility Incharge Email Facility Incharge Phone Pacility Senthil Sarava nan Bhatra nitt@g mail.co m 994023 6395	0			No	No			Yes	
		Sou	ırce of Gra	ant / Fun	nd			Agency Name				Agency Ty	⁄pe		Total G Incubatio exi	rants / Fund n & Incubati sts in Camp	s Received by Pre- on Centre / Facilities us (In Rupees)
	Funding Age	су					Centre for Engine Kalam Technologi	ering Research and Develocal University	pment-	APJ Abdul	Govt. A	agency (State)			200000		
	Funding Age	су					Kerala State Cour (KSCSTE)	ncil for Science, Technolog	y and E	nvironment	Govt. A	agency (State)			20000		
	Institute's Ov	n Fund / Resource					Sree Buddha Coll	ege of Engineering, Pattoo	r		Educati	ional Institute			0		
2	Sree Buddha incubation Spa	ee Innovation Centre	2018		Co-working Space, Work Stations	Incubation Un	it Incubation Unit	Facility Incharge Name Gopu Darsan Facility Incharge Email Facility Incharge Phone Facility 980955 7304	6			Yes	No			Yes	
		Sou	ırce of Gra	ant / Fun	nd			Agency Name				Agency Ty	rpe		Total G Incubatio exi	rants / Fund n & Incubati sts in Camp	s Received by Pre- on Centre / Facilities us (In Rupees)
	Institute's Own Fund / Resource					SREE BUDDHA COLLEGE OF ENGINEERING			Educational Institute 0			0					

List th	e Pre-Incubati	ion Facility	/ (Tinkerine	g Lab/Make	rs' Space/D	esign Centi	re/New Gen IEDC/	IEDC/EDC/Inn	ovatio	n Centre/Startup	Cell) (>=	600 Sg. I	Ft. Floor Area)	
3	Centre for Innovation and Research - CE (CIR-CE)	Innovation Centre	2020	Co-working Space	No Such Facilities Exist in the Campus	No Such Facilities Exist in the Campus	Facility Incharge Name Facility Incharge Email Facility Incharge Email Facility Incharge Phone Dr. R. Gopak umar grp.33 39@g mail.co m 892153 3858	0		No	No	·	Yes	
		Sou	rce of Grant / Fu	nd			Agency Name			Agency Type		Incubati	Grants / Funds Received by Pre- on & Incubation Centre / Facilities kists in Campus (In Rupees)	
	Funding Agency					CERD			Govt. A	gency (State)		200000		
	Funding Agency					KSCSTE			Govt. A	gency (State)		45000		
	Institute's Own Fu	und / Resource				Sree Buddha Educational Society				Educational Institute			0	
4	INNOVATION AND ENTREPRENEU RSHIP DEVELPOMENT CENTRE	IEDC	2015	Co-working Space	Student Clubs	Student Clubs	Facility Incharge Name Facility Incharge Email Facility Incharge Email Facility Incharge Phone GOPU DARS AN gops60 1@gm ail.com	6		Yes	No		No	
List th		ccellence (CoE) Facil	ities with A	dvance Too	ols and Equi	pment at the HEI	(>= 1000 Sq. F	t. Floc	or Area)				
	e Incubation F	acilities a	t the HEI (>	>= 1500 Sq.	Ft. Floor A	rea)								
No Data	a Filed!													
List th	e Innovation F	Park/Resea	arch Park F	acilities at	the HEI (>=	5000 Sq. Ft	. Floor Area)							
No Data	a Filed!						-		·	-	-		-	
	-													

Name of the Funding Schemes IPR Cell/Technology Transfer Centre Name of IPR Cell/Technology Year of Establishment Available with IPR Srno with Access to Transfer Centre Facility Other I&E Cell/Technology Transfer Centre, if any (Optional)

Facilities at the HEI

List the IPR Cell/Technology Transfer Centre Facilities at the HEI

Facility Details

Total Nos of Dedicated Executive/Manag ement team Strength
Engaged at the
Facility

Had the IPR Cell/Technology Transfer Centre 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 IPR Cell/Technology Transfer Centre?

Had the IPR Cell/Technology Transfer Centre Provided any Funding Support for Idea/Prototype/Innovation/Start up/Venture Development and implementation during the Financial Year 2019-20? List the IPR Cell/Technology Transfer Centre Facilities at the HEI

1	IPR and Patent Facilitation Centre	2017	Innovation Park/Research	BioCARe Scheme,	Facility Dr. Incharge Jaya	01	No	No	No
			Park	Department of Biotechnology	Name Jacob				
					JACO Facility B.JAY				
					Incharge A@G Email MAIL. COM				
					Facility 09562 Incharge 56275				
					Phone 4				

Provide detail list of Faculties as Mentor to help Ideas/Innovations/Startups

Srno	Name of the Faculty	Designation of the Faculty	Mentor Expert Area	Years of Experience in Mentorship (In Years)
1	Mr. Alex V	Assistant Professor	Idea/Innovation Development	3
	Name of Idea/Innovation/ S	tartup Mentored	Mentoring Setup [Within (or) Outside] HEI	CIN (in case it is Startup)
	Solar water pump		Within	
	Onboard electric vehicle charging station		Within	
	Solar based DAES		Within	
	IGBT based DC motor control		Within	
	Phase control of universal motor using SCR		Within	
	Solar based induction cooking system		Within	
2	Mr. Venugopal N	Assistant Professor	Idea/Innovation Development	3
	Name of Idea/Innovation/ S	tartup Mentored	Mentoring Setup [Within (or) Outside] HEI	CIN (in case it is Startup)
	Child bore well rescue system		Within	

Provide detail list of External Experts/Agencies engaged as Mentor to help Ideas/Innovations/Startups

Srno	Name of the External Expert/Agency as Mentor	Mentor Expert Area	Type of Mentorship		
1	Mr. Suresh Kumar T O	Idea/Innovation Development	Unstructured Mentorship		
2	Mr. Anish S Nair	Idea/Innovation Development	Unstructured Mentorship		
3	Mr. Premkumar S	Idea/Innovation Development	Unstructured Mentorship		
4	Mr. Santhosh Warriam Ayani	Idea/Innovation Development	Unstructured Mentorship		
5	Mr. Jerin J Mathew	Idea/Innovation Development	Unstructured Mentorship		
6	Dr. Sreejith Mohan	Idea/Innovation Development	Unstructured Mentorship		
7	Dr. L Godson Asirvatham	Idea/Innovation Development	Unstructured Mentorship		

Provide detail list of External Experts/Agencies engaged as Mentor to help Ideas/Innovations/Startups

Туре

Name

8	Ms. Ardra Chandra Mouli	Idea/Innovation Development	Unstructured Mentorship
9	Mr. Giby Varghese Jaison	Idea/Innovation Development	Unstructured Mentorship
10	Mr. Mohammed Aseem	Idea/Innovation Development	Unstructured Mentorship
11	Ms. Bindu Sunil	Idea/Innovation Development	Unstructured Mentorship
12	Dr. Anil Joseph	Idea/Innovation Development	Unstructured Mentorship
13	Mr. Sajil Satheek	Idea/Innovation Development	Unstructured Mentorship
14	Mr. Amal Prakash	Idea/Innovation Development	Unstructured Mentorship

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

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 TRL it started receiving the Support during the FY 2019- 20	Stage of Innovation /Stage of TRL reached as on 31st March 2020	Status Pre- Incubation/Inc ubation 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/Startu p/SME Unit during the financial period 2019- 20	Had Centre/institut e 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 preincubation/inc ubation support at your Preincubation/inc ubation or HEI during the financial period 2019-20	Had the fincubation ubation Centre/Freceived income/re e from Idea/Protc. /Innovatifor the pincubation support at the servit offered Preincubation institute duthe finan period 2(
Concrete roof cooling using nanoparticle coated heat pipes for sustainability	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Faculty	TRL 3 : Applied research. First laboratory tests completed ; proof of concept.	TRL 4 : Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Development Ongoing	Agency Name Agency Type Award / Position / Recognition n Secured CERD Govt. Agency (State) Researc h Seed Money	No	Gra nt Amo unt in Rs	No	No
	Name		Ту	/ре		Ge	ender		Email		Conta	ct
Dr. Trijo Tharayil		Fac	culty			Male		trijotharayil@gmail.com		-	736766471	

Gender

Email

Contact

IBF- vehicle: Intellige nt balancin g Vehicle Frame	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Faculty	TRL 3: Applied research. First laboratory tests completed ; proof of concept.	TRL 4: Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Developm ent Ongoing	No	No	No	No	No	
	Name			Туре		Gei	nder		Email		Cont	act	
Dr. M S	Senthil Saravanan		Faculty		M	ale		bhatranitt@g	gmail.com		9940236395		
	Name			Туре		Ger	nder		Email		Cont	act	3
Dr. J B S	ajin		Faculty		M	ale		mechanicals	ajin@gmail.com		8248717243		
Jackfruit dressing machine	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 3: Applied research. First laboratory tests completed; proof of concept.	TRL 4: Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Developm ent Ongoing	No	No	No	No	No	
	Name			Туре		Ger	nder		Email		Cont	act	
Mr. Vaisa	akh P S		Faculty		M	ale		vaisakh.vps	@gmail.com		7907918600		
	Name			Туре		Ger	nder		Email		Cont	act	4
Dr. J B S	ajin		Faculty		M	ale		mechanicals	ajin@gmail.com		8248717243		
Coconut tree climbing machine	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 3: Applied research. First laboratory tests completed; proof of concept.	TRL 4: Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Developm ent Ongoing	No	No	No	No	No	
	Name			Туре		Ger	nder		Email		Cont	act	N E
Mr. Vaisa	akh P S		Faculty		M	ale		vaisakh.vps	@gmail.com		7907918600		N a a i l
5	GoKART	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 3: Applied research. First laboratory tests completed ; proof of concept.	TRL 4: Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Development Ongoing	No	No	Gra nt 00 nt in Rs	No	No
		Name		Ту	ре		Gei	nder		Email		Conta	ct
	Dr. M S Senthil Sarava	nan	Facu	ilty		l N	1ale		bhatranitt@gmail.com			9940236395	

	Name			Туре		Ge	nder		Email		Cont	act	6	
Quad Bike	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 3: Applied research. First laboratory tests completed ; proof of concept.	TRL 4: Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Developm ent Ongoing	No	No	Gra 00 00 Amo unt in Rs	No	No		
	Name			Туре		Ge	nder		Email		Cont	tact	N	E m
Mr. Sreel	kumar E N		Faculty		M	ale		sreekumar.rit	t@gmail.com		9447781269		a m e	a i l
7	Thermal performamnce analysis of heat pipe with nanopartivle coated wick for concrete roof cooling	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME	Faculty	TRL 3 : Applied research. First laboratory tests completed ; proof of concept.	TRL 4 : Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Development Ongoing	Agency Name Agency Type Award / Position / Recognition Secured KSCSTE Govt. Agency (State) Seed money	No	Gra nt Amo unt in Rs	No	No	
		Name		Ту	ре		Ge	nder		Email		Cont	act	
	Dr. Trijo Tharayil		Facu	lty		N	1ale		trijotharayil@gmail.com			7736766471		
	Name			Туре		Ge	nder		Email		Cont	act	8	
Concret e roof cooling using capillary driven heat pipes for sustaina bility	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Faculty	TRL 3: Applied research. First laboratory tests completed; proof of concept.	TRL 4 : Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Developm ent Ongoing	Age ncy Na me Go vt. Age enc y (St ate) Awa rd / Posi tion / Rec ogni tion Sec	No	Gra nt Amo unt in Rs	No	No		

	Name			Туре		G	ender		Email		Co	ontact	N I
Dr. Trijo ⁻	Tharayil		Faculty			Male		trijotharayil@	?gmail.com		7736766471		N a m e
	Break pad using orange fibre and Al2O3	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 2: Technolog y formulatio n. Concept and application have been formulated	research. First laboratory tests completed ; proof of concept.	Innovation Development Ongoing	No	No	No	No	No
		Name		Ту	ре		Ger	nder		Email		Со	ntact
	Mr. Ratheesh R		Facu	lty			Male		ratheeshsbce@gmail	.com		9447788628	
	Name			Туре		G	ender		Email		Co	ontact	10
nthesi f plasti with nance ermal, ichani and rrier operti	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 2: Technology formulatio n. Concept and application have been formulated	research. First laboratory tests completed proof of concept.	Developm ent Ongoing	No	No	No	No	No	
	Name			Туре		G	ender		Email		Co	ontact	N a m
r. Kales	sh K K		Faculty		-	Male		kalesh24@g	mail.com		9496113281		N a m e
	Supercapacitor electrode from biomaterials	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 2: Technolog y formulatio n. Concept and application have been formulated	research. First laboratory tests completed ; proof of concept.	Innovation Development Ongoing	No	No	No	No	No
		Name		Ту	ре		Ger	nder		Email		Со	ntact
	Dr. J B Sajin		Facu	lty			Male		mechanicalsajin@gm	ail.com		8248717243	
	Name			Туре			ender		Email			ontact	12

Design and develop ment of low fume welding electrod es	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 2: Technolog y formulatio n. Concept and application have been formulated	TRL 3: Applied research. First laboratory tests completed; proof of concept.	Innovation Developm ent Ongoing	No	No	No	No	No	
	Name			Туре		Ger	nder		Email		Con	tact	N E
Mr. Hari ł	Krishnan G		Faculty		Ma	ale		harikrishnan	gs24@gmail.com		9496992393		N E m a i l
13	Child bore well rescue system	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 2: Technolog y formulatio n. Concept and application have been formulated	TRL 3: Applied research. First laboratory tests completed ; proof of concept.	Innovation Development Ongoing	No	No	No	No	No
		Name		Ту	ре		Ge	nder		Email		Conta	act
	Mr. Jinan S		Facu	lty		М	ale		jinan6@gmail.com			9037107413	
	Name			Туре		Ger	nder		Email		Con	tact	14
Turning wheels through 90 degree in parallel parking	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 2: Technolog y formulatio n. Concept and application have been formulated	TRL 3: Applied research. First laboratory tests completed; proof of concept.	Innovation Developm ent Ongoing	No	No	No	No	No	
	Name			Туре		Ger	nder		Email		Con	tact	N E
Mr. Jinan	S		Faculty		Ma	ale		jinan6@gma	il.com		9037107413		N E m a i e l
15	Thermite nest reinforced composites	Product Innovation	Technological	Center for Innovation and Research- ME (CIR-ME)	Student- Faculty	TRL 2: Technolog y formulatio n. Concept and application have been formulated	TRL 3 : Applied research. First laboratory tests completed ; proof of concept.	Innovation Development Ongoing	No	No	No	No	No
		Name		Ту	ре		Ge	nder		Email		Conta	act
	Dr. J B Sajin		Facu	lty		M	ale		mechanicalsajin@gmail.c	om		8248717243	

	Name			Туре		Ge	nder			Email		Con	tact	16
Smart Helmet	Product Innovation	Technological	IEDC	Student- Faculty	TRL 0 : Idea. Unproven concept, no testing has been performed	TRL 2: Technolog y formulatio n. Concept and application have been formulated	Innovation Developm ent Ongoing	No		No	Gra 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	No	No	
	Name			Туре		Ge	nder			Email		Con	tact	
Raj Sure	sh George		Student		N	/lale		raj	ijsuresh199	9@gmail.com		9605409607		
Alex V	Name		Faculty	Туре	N	Ge ⁄/ale	nder	ale	exvincent.s	Email @gmail.com		Con 8281345157	tact	17
SANITA RY WASTE DISPOS AL SYSTE M	Product Innovation	Technological	IEDC	Student- Faculty	TRL 0 : Idea. Unproven concept, no testing has been performed	TRL 4: Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Developm ent Complete d	No		No	No	No	No	
	Name			Туре		Ge	nder			Email		Con	tact	N E
ATHIRA	В		Faculty		F	emale		ath	:hiraasok19	90@gmail.com		9995345232		N E m a i l
18	NANO CHEMICAL STABILIZATION OF EXPANSIVE KUTTANAD CLAYS	Service Innovation	Technological	Lab	Faculty	TRL 0 : Idea. Unproven concept, no testing has been performed	TRL 1 : Basic research. Principles postulated and observed but no experimen tal proof available.	In Deve	nnovation elopment Ongoing	Agency Name CERD KTU,KE RALA Agency Type Govt. Agency (State) Award / Position / Recognition n Secured		Gra nt Amo unt in Rs	No	No
		Name		Ту	/pe		Ge	nder			Email		Conta	act
	Ms. Regi P. Mohan		Facu	ılty		F	emale			ce.regipm@sbcemail.ii	1		9995114990	
	Name			Туре		Ge	nder			Email		Con	tact	19

				T	T						T	
STUDY ON STREN GTH, DURABI LITY AND MICRO STRUC TURAL CHARAS TICS OF ETE WITH PUMICE POWDE R OLAN AND POLYP ROPYL ENE FIBRE ADDITI VES	Process Innovation	Technological	LAB	Student-Faculty	TRL 0 : Idea. Unproven concept, no testing has been performed .	TRL 3 : Applied research. First laboratory tests completed; proof of concept.	Innovation Developm ent Complete d	Ker alaa Sta te Coo unc ii for Scic en e Te cholo gyand en k(SCST), Natrion al Instritut e of Te cholo gyand en k(SCST), Natrion al Instritut e of Te cholo gyand en k(SCST), Natrion al Instritut e of Te cholo gyand en k(SCST), Natrion al Instritut e of Te cholo gyand en k(SCST), Natrion en k(SCST), Natrio	Grant Amount in Rs	No	No	

	Name			Туре		Ger	nder		Email		Cont	act	
REGI P N			Faculty	туре	Fe	emale	luei	ce.regipm@			9995114990	acı	
ANSU J I	Name		Student	Туре		Ger	ider	ansu.j.lalu@	Email		Cont	act	20
EXPERI MENTA L INVESTI GATION ON STREN GTH AND DURABI LITY PROPE RTIES OF OF OMODIFI ED REACTI VE POWDE R CONCR ETE WITH NANO SILICA	Service Innovation	Technological	LAB	Faculty	TRL 1 : Basic research. Principles postulated and observed but no experimen tal proof available.	TRL 3 : Applied research. First laboratory tests completed ; proof of concept.	Innovation Developm ent Complete d	Age ncy Na TE me Go Vt. Age ncy Typ e Student Na Student Na Student Na Student Na Secured Secu	No	Gra nt Amo unt in Rs	No	No	
	Name							_					
Mc Shot				Туре		Ger	nder		Email		Cont	act	
IVIS. SHOL	oha Elizabeth Thomas		Faculty	Туре	Fe	Ger	der	ce.shobhae	Email et@sbcemail.in		9562447155	act	
Vrinda V.	Name		Faculty	Туре									21

	Name			Туре			Gender		Email		Coi	ntact	N E
Mr. Unni	krishnan S.		Faculty			Male		ce.unnikrishr	nans@sbcemail.in		9947600545		N a m a i e
22	Voice Controlled Robotic arm for differently abled people	Product Innovation	Technological	Center for Innovation and Research at ECE (CIR-EC)	Student- Faculty	TRL 0 : Idea. Unprover concept, no testing has been performe	First laboratory tests	Innovation Development Completed	No	No	No	No	No
		Name		Ту	/pe		Ge	nder		Email		Cor	tact
	Vishnu V S		Facu	lty			Male		vishnu.vs.kkd@gmail.com	1		9947062806	
		Name		Ту	ре		Ge	nder		Email		Cor	tact
	Rintu Ann Cherian		Stude	ent			Female		cherianrintu@gmail.com			8848542565	
23	IoT based real time flood prediction and monitoring system	Product Innovation	Technological	Center for Innovation and Research at ECE (CIR-EC)	Student- Faculty	TRL 0 : Idea. Unprover concept, no testing has been performe	First laboratory tests	Innovation Development Completed	No	No	No	No	No
		Name		Ту	/pe		Ge	nder		Email		Cor	tact
	Jasmin Basheer		Facu	lty			Female		jasminbasheer@gmail.com	n		9447787407	
	Name			Туре			Gender		Email		Cor	ntact	24
Perform ance enhance ment of solar electric tripad using loT	Product Innovation	Technological	Center for Innovation and Research at ECE (CIR-EC)	Faculty	TRL 0 : Idea. Unprove concept, no testin has beer performe	First laborator tests	Complete d	No	No	No	No	No	
	Name			Туре			Gender		Email		Coi	ntact	N E m
Alex V			Faculty			Male		alexvincent.s	s@gmail.com		8281345157		a m m i e l
25	Design and Implementation of a Novel Flying Sailing Drone for sureveillance	Product Innovation	Technological	Center for Innovation and Research at ECE (CIR-EC)	Student- Faculty	TRL 0 : Idea. Unprover concept, no testing has been performe	First laboratory tests	Innovation Development Completed	No	No	No	No	No

		Name		Ту	ре		Ge	nder		Email		Cont	act
	Ambika Sekhar		Fac	ulty			Female		ambikasekharmtv@gma	ail.com		9446204252	
		Name		Ту	ре		Ge	nder		Email		Cont	act
	VINEETH KUMAR V		Stud	dent			Male		vinu373.vk@gmail.com			9544947989	
26	Development of smart spectacles for visually impaired people.	Product Innovation	Technological	Center for Innovation and Research at ECE (CIR-EC)	Faculty	TRL 0 : Idea. Unproven concept, no testing has been performed .	TRL 3 : Applied research. First laboratory tests completed ; proof of concept.	Innovation Development Completed	No	No	No	No	No
		Name		Ту	ре		Ge	nder		Email		Cont	act
	Jayaraj V S		Fac	ulty			Male		jayarajvs2050@gmail.co	om		9946005469	
	Name			Туре		Ge	ender		Email		Co	ntact	27
Energy efficient Batter Manage ment System for all terrain electric board	Product Innovation	Technological	Center for Innovation and Research at ECE (CIR-EC)	Student	TRL 0 : Idea. Unproven concept, no testing has been performed	TRL 3: Applied research. First laboratory tests completed; proof of concept.	Innovation Developm ent Ongoing	No	No	No	No	No	
	Name			Туре		Ge	ender		Email		Со	ntact	N E
Justy Joh	nn		Student		Ma	ale		johnjusty6@	gmail.com		8075147481		N a m a i l
28	Low cost IoT based Cooking Gas Assistive System	Product Innovation	Technological	Center for Innovation and Research at ECE (CIR-EC)	Student	TRL 0 : Idea. Unproven concept, no testing has been performed .	TRL 4 : Small scale prototype built in a laboratory environme nt ("ugly" prototype).	Innovation Development Completed	No	No	No	No	No
		Name		Ту	ре		Ge	nder		Email		Cont	act
	Justy John		Stud	dent			Male		johnjusty6@gmail.com			8075147481	
	Name			Туре		Ge	ender		Email		Co	ntact	29
													1

Impleme ntation of In- pipe robot for borewell rescue applicati ons	Product Innovation	Technological	Center for Innovation and Research at ECE (CIR-EC)	Student- Faculty	TRL 0 : Idea. Unproven concept, no testing has been performed	TRL 3: Applied research. First laboratory tests completed ; proof of concept.	Innovation Developm ent Ongoing	No	No	No	No	No	
	Name			Туре			nder		Email		Cont	act	
Sabi S			Faculty		M	lale		haisabi@gm	nail.com		9846206432		
	Name			Туре		Ge	nder		Email		Cont	act	30
Sivapras	ad		Student		M	lale		sivasbce199	98@gmail.com		8921058375		
Microbia I Concocti on for Quantu m Dot biosynth esis	Process Innovation	Technological	Biotechnology	Student- Faculty	TRL 1 : Basic research. Principles postulated and observed but no experimen tal proof available.	TRL 3 : Applied research. First laboratory tests completed ; proof of concept.	Innovation Developm ent Ongoing	Age ncy Na me Bio chn olo gy Age ncy Typ e (Ce ntr al) Awa rd / Posi tion / Rec ognition Sec ured	No	Gra nt Amo unt in Rs	No	No	
	Name			Туре		Ge	nder		Email		Cont	act	N E
Dr. Jaya			Faculty		F	emale		JACOB.JAY	A@GMAIL.COM		9562562754		N a m e
31	Smart nanobionic systems based on carbon quantum dots	Process Innovation	Technological	Biotechnology	Faculty	TRL 3 : Applied research. First laboratory tests completed ; proof of concept.	TRL 1 : Basic research. Principles postulated and observed but no experimen tal proof available.	Innovation Development Ongoing	Agency Name Agency Type Award / Position / Recognition n Secured CERD- KTU Govt. Agency (State) Financial Support	No	Gra nt Amo unt in Rs	No	No

		Name		Ту	pe		Geno	der		Email		Conta	act
	Dr. Jaya		Facu	ılty		I	Female		JACOB.JAYA@GMAIL.CO	OM		9562562754	
	Name			Туре		Ge	ender		Email		Cor	ntact	32
unti- nicrobia tissue aper aper swels	Product Innovation	Technological	Biotechnology	Student- Faculty	TRL 4: Small scale prototype built in a laboratory environme nt ("ugly" prototype).	TRL 4 : Small scale prototype built in a laboratory environme nt ("ugly" prototype).		Age ncy Na me Ed uca tion al Inst itut e Awa rd / Posi tion / Rec cogni tion Sec ured	No	No	No	No	
	Name			Туре		Ge	ender		Email		Cor	ntact	N
Jaya jAC	ОВ		Faculty		F	emale		JACOB.JAY	A@GMAIL.COM		9562562754		N a m e

Srno	Name of the Venture/Startup/SME Unit Established with the Support of HEI	Type of Innovation of Venture/Startup/SME Unit	Nature of Innovation	Name of the Pre- Incubation/In cubation Unit of HEI Supported Innovation Development	Venture Founded by	Venture Registerd as	Year of Registrati on	What is the current status of Pre- Incubation/Incubation Support to Venture/ Startup/ SME Unit as on 31st March 2020?	Had the Venture Received any Recognition at State, National, International Level Programs during the financial period 2019- 20?	Had Centre/institu te provided any Financial support (either own resource or fund received from agencies) in terms of Seed Grant/Fund Support to Venture establishmen t during the financial period 2019- 20	Had the venture/startu p raised any Seed fund/Angel Investment/V C during the period of receiving preincubation/inc ubation support at your Preincubation/inc ubation or HEI during the financial period 2019-20	Had the Pre- incubation/In cubation Centre/HEI received any income/reven ue from venture/startu p for the pre- incubation/inc ubation support and the services offered by Pre- incubation/inc ubation or institute during the financial period 2019- 20	Has the Start-up Grown to a stage of Employment Generation to 10 Numbers or an annual Turnover to Rs. 50 Lakhs during the financial year 2019-20
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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 / Innovation / Startups from the HEI get benefitted through this partnership	Date of MOU / Agreement Signed on
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
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
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
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
5	Crypt4bits Pvt Limited	Educational Institute	Providing (or) Receiving Mentor and Handholding Support to Support I&E Activities	Mentoring,Networking	3	04-10-2019
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
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

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

No Data Flled!

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]
1	IBF-VEHICLE: INTELLIGENT-BALANCING VEHICLE FRAME	202011006274A	National	2020 - 02	Uploaded

List the IPs hold by the Innovation teams/Startups Incubated at the Pre-incubation/incubation Unit of the HEI

No Data Flled!

List the IP Commercialized/Transferred Published & Granted to HEI as Co-applicant/Co-owner
--

No Data Flled!

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

76653 ROR

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

726/03/2031

Dr. Trijo Tharayil Nodal Officer, Alappuzha, Kerala

Responsibility for accuracy and authenticity of data lies with the concerned institution.