Velammal College of Engineering & Technology, Madurai [ARI-C-26781][C-26781]

Section 1: Policy And Institutionalization Of I&E Activities In HEIs (Academic Calendar Year 2020-21 & 2021-22)

1.1) Adoption Level of Innovation and Entrepreneurship (I&E) Policy in HEIs: Registration; Policy Formulation; Policy Implementation

Completion of Action Items (status as on 7th November 2022)	Status
Registered in the NISP portal for I&E Policy Adoption	Yes
Institute has Formulated an Innovation and Entrepreneurship (I&E) Policy	No
Institute has Action Plans for Implementation of the I&E Policy	No

Contact:

Faculty Name:	Dr. V. ANBUMALAR
Designation:	Professor and Head
Email ID:	vam@vcet.ac.in
Mobile No.	9486485148

1.2) Performance Level of Institution's Innovation Councils (IICs) Established in HEIs: Scores and Stars Obtained

Annual Performances of IIC Institute	Stars Secured
IIC 1.0 (2018-19)	1,2
IIC 2.0 (2019-20)	2.5
IIC 3.0 (2020-21)	1
IIC 4.0 (2021-22)	4

Contact:

IIC President of the Institute:	Dr.N.Suresh Kumar

Designation:	Principal
Email ID:	principal@vcet.ac.in
Mobile No.	9443867923

1.3) Activeness of Trained Innovation Ambassadors in Driving Campus I&E Ecosystems in HEIs: Trained IA/HEI and Nos of Prescribed Activities undertaken by IA

Sr. No.	Name of the Faculty IA	Level of Training	No of I&E Expert Talks/Sessions Conducted
1	Dr. S. Senthilrani	Advance	7
2	Dr.S.Kamalesh	Basic	0
3	Dr.P.Karthikeyan	Basic	1
4	Annie Sweetlin Jebarani J P	Advance	2
5	Mr. SURENDRAN K R	Advance	3
6	Dr.M.Maran	Advance	1
7	VIVEK PRABHU M	Basic	0
8	MUNEESWARI B	Basic	1
9	Dr.R.YUVARAJA	Basic	0
10	Dr.N.Nagarani	Basic	3
11	Karuppaiah Rajkumar M	Basic	1
12	SURUTHI DEVI.R	Basic	0
13	A. Arun Senthil Kumar	Basic	0
14	Dr.T.Chandrasekar	Advance	1
15	K. Arunasakthi	Advance	4
16	G.BALAMURALIKRISHNAN	Basic	0
17	A. Gobinath	Advance	2

1.4) Participation in KAPILA/SIH Program

HEI Registered in the KAPILA Portal	C-26781	Yes

HEI Participated in the Smart India Hackathon (2022)				C-26781		Yes

Section 2: Teaching and Learning: Academic Programs related to Innovation and Entrepreneurship (I&E) Offered by the HEI

2.1) Academic Courses in Innovation, Entrepreneurship and IPR

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
1	Surveying	CE8351	2020-21	Core Course	Bachelor	Civil	3	18-01-2021 00:00:00
2	Construction Materials	CE8391	2020-21	Core Course	Bachelor	Civil	3	20-01-2020 00:00:00
3	Construction Materials Laboratory	CE8311	2021-22	Core Course	Bachelor	Civil	2	08-02-2021 00:00:00
4	Surveying Laboratory	CE8361	2021-22	Core Course	Bachelor	Civil	2	15-02-2022 00:00:00
5	Construction Techniques and Practices	CE8401	2020-21	Core Course	,Bachelor	Civil	3	07-12-2020 00:00:00
6	Concrete Technology	CE8404	2020-21	Core Course	,Bachelor	Civil	3	07-12-2020 00:00:00
7	Design of Reinforced Cement Concrete Elements	CE8501	2020-21	Core Course	,Bachelor	Civil	4	06-01-2020 00:00:00
8	Water Supply Engineering	EN8491	2021-22	Core Course	,Bachelor	Civil	3	06-01-2020 00:00:00

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
9	Soil Mechanics Laboratory	CE8511	2021-22	Core Course	,Bachelor	Civil	2	04-01-2021 00:00:00
10	Design of Steel Structural Elements	CE8601	2021-22	Core Course	,Bachelor	Civil	4	01-12-2021 00:00:00
11	Highway Engineering Laboratory	CE8611	2021-22	Core Course	,Bachelor	Civil	2	25-11-2021 00:00:00
12	Geographic Information System	GI8014	2021-22	Elective Course	,Bachelor	Civil	3	08-11-2021 00:00:00
13	Total Quality Management	GE8077	2020-21	Elective Course	Bachelor	Electronics and Communication Engineering	3	13-08-2021 00:00:00
14	DISASTER MANAGEMENT	GE8071	2021-22	Elective Course	,Bachelor	Electronics and Communication Engineering	3	11-08-2022 00:00:00
15	Principles of Management	MG8591	2021-22	Elective Course	,Bachelor	electronics and communication	3	10-01-2022 00:00:00
16	Intellectual Property Rights	GE8075	2021-22	Elective Course	,Bachelor	electronics and communication	3	17-01-2022 00:00:00
17	SENSOR APPLICATIONS USING ARDUINO AND RASPBERRY PI	EVA027	2020-21	Elective Course	Bachelor	Electrical and Electronics Engineering	2	20-03-2021 00:00:00
18	Power Electronics and Drives Laboratory	EE8661	2020-21	Core Course	,Bachelor	Electrical and Electronics Engineering	2	04-03-2021 00:00:00

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
19	Microprocessor and Microcontrollers Laboratory	EE8681	2020-21	Core Course	Bachelor	Electrical and Electronics Engineering	2	04-03-2021 00:00:00
20	Embedded Systems	EE8691	2020-21	Core Course	Bachelor	Electrical and Electronics Engineering	3	04-03-2021 00:00:00
21	Renewable Energy Systems	EE8703	2020-21	Core Course	Bachelor	Electrical and Electronics Engineering	3	15-07-2020 00:00:00
22	Sensors and Transducers	OAN551	2020-21	Elective Course	Bachelor	Electrical and Electronics Engineering	3	15-07-2020 00:00:00
23	Microprocessors and Microcontrollers	EE8551	2020-21	Core Course	Bachelor	Electrical and Electronics Engineering	3	15-07-2020 00:00:00
24	Principles of Management	MG8591	2020-21	Elective Course	Bachelor	Electrical and Electronics Engineering	3	15-07-2020 00:00:00
25	Linear and Digital Integrated Circuits Laboratory	EE8461	2020-21	Core Course	Bachelor	Electrical and Electronics Engineering	2	04-03-2021 00:00:00
26	Power System Simulation Laboratory	EE8711	2020-21	Core Course	Bachelor	Electrical and Electronics Engineering	2	15-07-2020 00:00:00
27	Renewable Energy Systems Laboratory	EE8712	2020-21	Core Course	Bachelor	Electrical and Electronics Engineering	2	15-07-2020 00:00:00
28	Data Structures	CS8391	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
29	Object Oriented Programming	CS8392	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
30	Communication Engineering	EC8395	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
31	Digital Principles and System Design	CS8351	2020-21	Core Course	Bachelor	Computer Science and Engineering	4	15-07-2020 00:00:00
32	Data Structures Lab	CS8381	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	15-07-2020 00:00:00
33	Object Oriented Programming Laboratory	CS8383	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	15-07-2020 00:00:00
34	Digital Systems Laboratory	CS8382	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	15-07-2020 00:00:00
35	Computer Networks	CS8591	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
36	Microprocessor and Microcontroller	EC8691	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
37	Theory of Computation	CS8501	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
38	Object Oriented Analysis and Design	CS8592	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
39	Microprocessors and Microcontrollers Laboratory	EC8681	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	15-07-2020 00:00:00
40	Object Oriented Analysis and Design Laboratory	CS8582	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	15-07-2020 00:00:00

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
41	Problem Solving and Python Programming	GE8151	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	23-11-2020 00:00:00
42	Problem Solving and Python Programming Laboratory	GE8161	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	23-11-2020 00:00:00
43	Cryptography and Network Security	CS8792	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
44	Cloud Computing	CS8791	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
45	Principles of Management	MG8591	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
46	Cloud Computing Laboratory	CS8711	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	15-07-2020 00:00:00
47	Security Laboratory	IT8761	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	15-07-2020 00:00:00
48	Computer Architecture	CS8491	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
49	Database Management Systems	CS8492	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
50	Design and Analysis of Algorithms	CS8451	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
51	Operating Systems	CS8493	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
52	Software Engineering	CS8494	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
53	Database Management Systems Laboratory	CS8481	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	18-02-2021 00:00:00
54	Operating Systems Laboratory	CS8461	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	18-02-2021 00:00:00
55	Internet Programming	CS8651	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
56	Artificial Intelligence	CS8691	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
57	Mobile Computing	CS8601	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
58	Compiler Design	CS8602	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
59	Distributed Systems	CS8603	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
60	Internet Programming Laboratory	CS8661	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	18-02-2021 00:00:00
61	Mobile Application Development Laboratory	CS8662	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	18-02-2021 00:00:00
62	Programming in C	GE8261	2020-21	Core Course	Bachelor	Computer Science and Engineering	3	15-04-2021 00:00:00

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
63	C Programming Laboratory	CS8261	2020-21	Core Course	Bachelor	Computer Science and Engineering	2	15-04-2021 00:00:00
64	Geographic Information System	OCE552	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
65	Hospital Management	OBM752	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
66	Software Project Management	IT8075	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
67	Human Computer Interaction	CS8079	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	15-07-2020 00:00:00
68	Software Testing	IT8076	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
69	Agile Methodologies	CS8072	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
70	Data Warehousing and Data Mining	CS8075	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
71	Cyber Forensics	CS8074	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
72	Green Computing	CS8078	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
73	Information Retrieval Techniques	CS8080	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
74	Professional Ethics in Engineering	GE8076	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	18-02-2021 00:00:00
75	Data Structures	CS8391	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	18-08-2021 00:00:00
76	Object Oriented Programming	CS8392	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	18-08-2021 00:00:00
77	Digital Principles and System Design	CS8351	2021-22	Core Course	Bachelor	Computer Science and Engineering	4	18-08-2021 00:00:00
78	Data Structures Laboratory	CS8381	2021-22	Core Course	Bachelor	Computer Science and Engineering	2	18-08-2021 00:00:00
79	OOPS Lab	CS8383	2021-22	Core Course	Bachelor	Computer Science and Engineering	2	18-08-2021 00:00:00
80	Digital Systems Laboratory	CS8382	2021-22	Core Course	Bachelor	Computer Science and Engineering	2	18-08-2021 00:00:00
81	Computer Networks	CS8591	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	18-08-2021 00:00:00
82	Microprocessor and Microcontroller	EC8691	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	18-08-2021 00:00:00
83	Theory of Computation	CS8501	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	18-08-2021 00:00:00
84	Object Oriented Analysis and Design	CS8592	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	18-08-2021 00:00:00

Srno	Title of Course	Course Code	Academic Year	Type of Course	Level of Course	Course Offering Department/ Centre/ Unit Name	Total Credit Score	Course Start Date
85	Microprocessor and Microcontroller Laboratory	EC8681	2021-22	Core Course	Bachelor	Computer Science and Engineering	2	18-08-2021 00:00:00
86	Networks Lab	CS8581	2021-22	Core Course	Bachelor	Computer Science and Engineering	2	18-08-2021 00:00:00
87	Object Oriented Analysis and Design Laboratory	CS8582	2021-22	Core Course	Bachelor	Computer Science and Engineering	2	18-08-2021 00:00:00
88	Cryptography and Network Security	CS8792	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	18-08-2021 00:00:00
89	Cloud Computing	CS8791	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	18-08-2021 00:00:00
90	Principles of Management	MG8591	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	18-08-2021 00:00:00
91	Cloud Computing Laboratory	CS8711	2021-22	Core Course	Bachelor	Computer Science and Engineering	2	18-08-2021 00:00:00
92	Security Laboratory	IT8761	2021-22	Core Course	Bachelor	Computer Science and Engineering	2	18-08-2021 00:00:00
93	Problem Solving and Python Programming	21CS101	2021-22	Core Course	Bachelor	Computer Science and Engineering	3	15-11-2021 00:00:00
94	Problem Solving and Python Programming Laboratory	21CS102	2021-22	Core Course	Bachelor	Computer Science and Engineering	2	15-11-2021 00:00:00

2.2) Non-Academic Courses in Innovation, Entrepreneurship and IPR

Srno	Title of Course	Academic Year	Type of Certificate Program	Certificate Program/MDP/FDP/EDP Sponsored/Supported by	Certificate Program Offering Department/ Centre/ Unit Name	Pro Sta Dat
1	Intellectual Property Rights		MDP in I&E / IPR		Electronics and Communication Engineering	12- 202 00:0
2	Machine Learning Applications to IoT Series - I	2020-21	Short-term Certificate Program	Central Govt. Agency	Electronics and Communication Engineering	04- 202 00:0
3	CCNA Course	2020-21	Short-term Certificate Program	Self Sponsored/Supported	Computer Science and Engineering	15- 202 00:0
4	Next Generation Computing Machine Intelligence	2020-21	Faculty Development Program (FDP)	Self Sponsored/Supported	Computer Science and Engineering	17- 202 00:0
5	Most practiced key softwares for Cloud Computing and Big Data	2020-21	Short-term Certificate Program	Self Sponsored/Supported	Computer Science and Engineering	21- 202 00:0
6	Machine Learning Applications to IoT Series - II	2021-22	Short-term Certificate Program	Central Govt. Agency	Electronics and Communication Engineering Department	01- 202 00:0
7	Machine Learning Applications to IoT Series - II	2021-22	Short-term Certificate Program	Central Govt. Agency	Electronics and Communication Engineering	01- 202 00:0
8	New Trends and Challenges in Electric Power Transmission	2020-21	Faculty Development Program (FDP)	Self Sponsored/Supported	Electrical and Electronics Engineering	10- 202 00:0
9	LEAN SIX SIGMA - GREEN BELT COURSE	2021-22	Short-term Certificate Program	Industry/Non-Govt.	TUV-SVD CERTFICATION	28- 202 00:0

Srno	Title of Course	Academic Year	Type of Certificate Program	Certificate Program/MDP/FDP/EDP Sponsored/Supported by	Certificate Program Offering Department/ Centre/ Unit Name	Pro Sta Dat
10	Entrepreneurship Development Programme	2020-21	Entrepreneurship Development Program (EDP)	Self Sponsored/Supported	IEDC	10- 202 00:

Section 3: Pre-Incubation and Incubation Infrastructure & Facilities are Currently in Operation to Promote I&E Agenda (AY 2020-21 & 2021-22)

3.1) Existence of Pre-Incubation Facility (Tinkering Lab/Makers' Space/Design Centre/New Gen IEDC/IEDC/EDC/Innovation Cell/Startup Cell) (>= 600 Sq. Ft. Floor Area)

Sr. No.	Type of the Unit	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
1	IEDC	VCET IEDC	Dr.A. Shunmugalatha	9789302741	asl@vcet.ac.in	Mentoring Support,Seed Grant Support,Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development),Incubation Facility Support (Innovative Business Model to Startup and Market Linkage & Growth Stage)

3.2) Existence of Incubation Facility (>= 1500 Sq. Ft. Floor Area)

Sr. No.	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
1	CIPD MSME	Dr. G.Manikandan	9600375600	gmk@vcet.ac.in	MSME

3.3) Existence of IPR Cell / Patent Facilitation Unit / Technology Transfer Centre at the institute

Sr. No.	Type of the Unit	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
No Data Found						

Section 4: Generation and Support of Prototypes / Innovations at

4) Total no. of Innovations (Verified and Recommended) in Different TRLs (4-9) are Recorded in the YUKTI National Innovation Repository of the IIC Institute (Status as on 7th November 2022)

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagement of Team Lead in Institute
1	VARICOSE VEINS CARING KIT	Independent Assignment/Non-academic Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	M.Jatin Kishore	Student
2	PAPER BAG MAKING MACHINE (SEMI-AUTOMATIC)	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	R.M.PRABAKARAN	Student

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagement of Team Lead in Institute
3	PAN INDIA UNIVERSITY WEBSITE PROTOTYPE	Independent Assignment/Non-academic Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	PAVITHRA MNS	Student
4	A DESIGN OF SMART SWITCH FOR PREDICTING POWER TRENDS	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	C B SELVA LAKSHMI	Faculty
5	IOT ENABLED COVID-19 BARRIER	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	C B SELVA LAKSHMI	Faculty
6	Electric Guider	Independent Assignment/Non-academic Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr.G.Vinoth Chakkaravarthy	Faculty
7	Food waste to Electric Energy Generation	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Dr S.Chellam	Faculty

Sr. No.	Innovation Name	Developed as part of	FY of Development (FY. 2020-21,2021-22)	TRL Stage	Team Lead/Innovator Name	Current Engagement of Team Lead in Institute
8	Motorized Weeder	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	Aravind Raj Pandian A	Student
9	WOODEN TREADMILL	Academic Requirement/Study Project	2021-22	TRL 6 : Prototype system tested in intended environment close to expected performance	Hari Hara Pandian T K	Student
10	Hydraulic Painting Arm	Academic Requirement/Study Project	2021-22	TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)	George sanjith A	Student
11	Stewart platform	Academic Requirement/Study Project	2020-21	TRL 6 : Prototype system tested in intended environment close to expected performance	Thamil Azhagan N	Student

Section 5: Start-ups/Ventures Established and Supported at HEI and & Recognitions Received (AY 2020-21 & 2021-22)

5) Total no of Ventures/Startups (Verified and Recommended) are Recorded in the YUKTI National Innovation Repository of the IIC Institute (Status as on 7th November 2022)

Sr. No.	Startup/Venture Name	Startup/Venture Registered as	CIN No/LLP/OPC/RC No	GST No	FY of Establishment	Startup/Venture Recognized by DPIIT/Startup India
No Data Found						

Section 6: Collaboration with Other Incubation Units, HEIs and Industry Associations to Strengthen Better Services and Support to Innovation & Startups at HEI (AY 2020-21 & 2021-22)

6) Collaboration with Other Incubation Units, HEIs and Industry Associations to Strengthen Better Services and Support to Innovation & Startups at HEI (AY 2020-21 & 2021-22)

Sr. No.	Collaborated Agency Name	Collaborated Agency Type	Period of Collaboration (No. of Years)	Current Status of Collaboration	Date of MOU / Agreement Signed on	View
1	BALAJI & ASSOCIATES, Madurai	Corporate/Industry Association	One	Active	15-02-2021	
2	Penguin Apparels Private Limited	Corporate/Industry Association	2yrs	Active	03-02-2021	View (/Uploads
3	ZAGA Open Source	Corporate/Industry Association	Five	Active	17-03-2021	
4	Spiro Prime Tech Services, Chennai	Corporate/Industry Association	0003	Active	25-02-2021	View (/Uploads

Sr. No.	Collaborated Agency Name	Collaborated Agency Type	Period of Collaboration (No. of Years)	Current Status of Collaboration	Date of MOU / Agreement Signed on	View
5	Archetype Design Services Pvt Ltd, Coimbatore	Corporate/Industry Association	One	Active	26-01-2021	
6	GARUADA AEROSPACE	Corporate/Industry Association	0001	Active	03-01-2022	View (/Uploads
7	Conquer Technologies, Chennai	Corporate/Industry Association	0003	Active	09-02-2021	View (/Uploads
8	MSME PPDC AGRA	Govt. Agency (Central)	0003	Active	03-02-2021	View (/Uploads
9	MedIoTek Health Systems Pvt Ltd	Corporate/Industry Association	1 yr	Active	30-09-2021	View (/Uploads
10	Continues Intelligence Lab (P) Ltd	Corporate/Industry Association	0001	Inactive	25-01-2021	View (/Uploads
11	JP Transformers Private Limited	Corporate/Industry Association	5yrs	Active	03-02-2021	View (/Uploads
12	CADD Academy, Madurai	Corporate/Industry Association	One	Active	04-02-2021	
13	ICT Academy	Corporate/Industry Association	2yrs	Active	01-04-2021	View (/Uploads
14	ARS HTA - HITECH ARAI	Corporate/Industry Association	0003	Active	03-02-2021	View (/Uploads
15	LyncSpace Software Service (P) Limited	Corporate/Industry Association	TEN	Active	06-03-2021	View (/Uploads

Sr. No.	Collaborated Agency Name	Collaborated Agency Type	Period of Collaboration (No. of Years)	Current Status of Collaboration	Date of MOU / Agreement Signed on	View
16	Unikans Builders and Promoters Private Limited Madurai	Corporate/Industry Association	One	Active	03-02-2021	
17	Lab Tech Electronics Private Limited	Corporate/Industry Association	5yrs	Active	03-02-2021	View (/Uploads
18	CMTi, Bangalore	Corporate/Industry Association	One	Active	09-02-2021	
19	Energy Tec	Corporate/Industry Association	5yrs	Active	03-02-2021	View (/Uploads
20	HI-TECH ARAI PRIVATE LIMITED	Corporate/Industry Association	3Yrs	Active	03-02-2021	View (/Uploads
21	PENGUIN APPARELS	Non Govt. Agency	0003	Active	03-03-2021	View (/Uploads

Section 7: Intellectually Property (IP) Generated and Commercialization

7.1) IPR Filed and Published (Copyrights & Design only)

Sr. No.	Title/Name of IP (Copyright/Design Only)	Type of IP	IP Registration Number of Copyright/Design	Date of Filed/Published	Has this IP(Copyright & Designs Only) been Commercialized/Transferred to Industry/Startup/Society?
1	Instruction System Design for Radiating Systems (21CM204)	Copy Right	11772/2022-CO	02-06-2022	No

Sr. No.	Title/Name of IP (Copyright/Design Only)	Type of IP	IP Registration Number of Copyright/Design	Date of Filed/Published	Has this IP(Copyright & Designs Only) been Commercialized/Transferred to Industry/Startup/Society?
2	GENETIC ALGORITHM INSPIRED FOUR ARM SINUOUS SLOT ANTENNA FOR X-BAND APPLICATIONS	Design	202141020253	03-05-2021	No
3	COMPLEMENTARY DNA FIBONACCI ANTENNA FORFREQUENCY RECONFIGURABILITY APPLICATIONS	Design	202141020324	04-05-2021	No
4	A method for Detecting Breast Cancer Using BAT Optimized HCGLCM	Design	202141035506	06-08-2021	No
5	A MULTILAYER GATE METAL OXIDE SEMICONDUCTOR FET FOR REDUCING SHORT CHANNEL EFFECT	Design	202041019570	08-05-2020	No
6	MOBILE STREAMING BASED INTELLIGENT BROADCASTING PROMOTION DIGITAL BOARD FOR MARKETING PURPOSES	Design	202241023287	20-04-2022	No
7	IoT BASED SMART WATCH DRONE HEALTHCARE SYSTEM FOR HEARTRISK PREDICTION	Design	202241029353	21-05-2022	No
8	Intelligent Sensor Based Automatic EB Billing Calculation Method	Design	202241011377	03-03-2022	No

Sr. No.	Title/Name of IP (Copyright/Design Only)	Type of IP	IP Registration Number of Copyright/Design	Date of Filed/Published	Has this IP(Copyright & Designs Only) been Commercialized/Transferred to Industry/Startup/Society?
9	Automatic Water Sprinkling system for plants with soil moisture sensing camera	Design	337196	05-02-2021	No
10	Automatic Solar Fertilizer Sprinkler	Design	337059	22-01-2021	No
11	Solar Powered automatic dual smoke extractor	Design	16382	25-04-2022	No

7.2) Patents Filed by HEI

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
No Data Found			

7.3) Patent Published / Granted Data

Sr. No.	Patent Registration Application No	Patent Title	Patent Application Date	Status of Patent Applications	Patent Published / Granted Calendar Year	Institute applied the Patent as	View
1	202141020253	GENETIC ALGORITHM INSPIRED FOUR ARM SINUOUS SLOT ANTENNA FOR X-BAND APPLICATIONS	05-03-2021	Published	2021		
2	202141018510	RANDOM REGION ROTATION BASED IMAGE FORGERY DETECTION	22-04-2021	Published	2021		

Sr. No.	Patent Registration Application No	Patent Title	Patent Application Date	Status of Patent Applications	Patent Published / Granted Calendar Year	Institute applied the Patent as	View
3	202141008351	IOT BASED SMART FARMING USING MACHINE LEARNING	27-02-2021	Published	2021		
4	202141005120	AI BASED WOMEN AND CHILD SAFETY DEVICE	02-05-2021	Published	2021		
5	202141002197	LOCAL PATTERNS OF GREY LEVEL (LPG) BASED IMAGE FORGERY DETECTION	18-01-2021	Published	2021		
6	202041057132	Joint Pain Treatment System: JOINT PAIN TREATMENT AND NOTIFICATION USING DOCTORS EXPERIENCE AND IOT-BASED SYSTEM.	30-12-2020	Published	2021		
7	202041055662	CHILDREARING SUPPORT SYSTEM AND INFANT SENSOR DEVICE USNG IOT	22-12-2020	Published	2021		
8	202041050703	METHOD, UTILITY AND DEVICE BASED ON INTERNET OF THINGS (IOT) FOR PANDEMIC DISEASE SURVEILLANCE AND PREDICTION	21-11-2020	Published	2021		
9	201941017694 A	Smart Electricity Controller for Domestic	05-03-2019	Published	2019		
10	201941038317 A	GLOBAL SYSTEM FOR MOBILE COMMUNICATION (GSM)	23-09-2019	Published	2019		

Sr. No.	Patent Registration Application No	Patent Title	Patent Application Date	Status of Patent Applications	Patent Published / Granted Calendar Year	Institute applied the Patent as	View
11	202041055425 A	LOW COST VIRUS FREE AIR CIRCULATOR FOR PPE	20-12-2020	Published	2020		
12	202041049358 A	VOICE BASED PATIENTS MONITORING SYSTEM USING ARTIFICIAL INTELLIGENCE TECHNIQUES	11-11-2020	Published	2020		
13	202041019570	A Multilayer Gate Metal oxide Semiconductor FET for reducing Short Channel Effect	05-08-2020	Published	2020		
14	202041016584A	Square Shaped CSRR Metamaterial InspiredRectangular Patch Antennafor Triple Band Application	17-04-2020	Published	2020		
15	2020101948	Kitchen item cleaningand disinfective deviceusing water and UVlight	23-08-2020	Granted	2020		

7.4) IP Commercialized and Transferred to Industry/Startup

Sr. No.	Name of Technology Licenced/Transferred/Commercialized	Technology Type	Patent/Licence Holder name (Institute Co-ownership is Must)	Technology Transferred to	Name of Licensee	D T T
No Data Found						

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. SURESH KUMAR N** (Head of Institute) and **Mr. ANBUMALAR. V** (Nodal Officer) jointly declaring on behalf of our institute is that all the information submitted are true and correct to best of our knowledge.
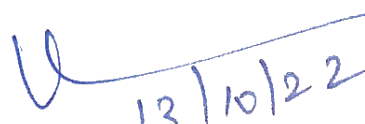
Thank you

The Head of Institute	Nodal officer
(signature) 13/10/22	*(signature)* 13/10/22
Dr. P. ALLI, M.S.,Ph.D. Principal Velammal College of Engineering and Technology (Autonomous) Viraganoor, Madurai - 625 009.	(Dr. V. ANBUMALAR)

<table>
<tr><td>Dr. SURESH KUMAR N,
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MADURAI, Tamil Nadu</td><td>Mr. ANBUMALAR. V,
Nodal Officer,
Velammal College of Engineering & Technology,
Madurai,
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