

## SYED AMMAL ENGINEERING COLLEGE [ ARI-C-26807 ][ C-26807 ]

## 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	Yes

#### Contact:

Faculty Name:	Dr. B. JAYALAKSHMI
Designation:	Professor and Head/ Chemistry
Email ID:	shcoordinator@syedengg.ac.in
Mobile No.	8903529252

### 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)	
IIC 2.0 (2019-20)	0
IIC 3.0 (2020-21)	0
IIC 4.0 (2021-22)	0 (On Progress)

#### Contact:

IIC President of the Institute:	Mrs.M.Shanmuga Sundari
Designation:	Assistant Professor
Email ID:	sshansundari@syedengg.ac.in
Mobile No.	9865168686

### 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
---------	------------------------	-------------------	-------------------------------------------

Sr. No.	Name of the Faculty IA	Level of Training	No of I&E Expert Talks/Sessions Conducted
1	Mrs.M.ShanmugaSundari	Basic	0
2	B JAYALAKSHMI	Advance	0
3	Dr. S. SELVAPERUMAL	Advance	0
4	Mrs. M. SHANMUGASUNDARI	Advance	0
5	DHARMAPRABHAKARAN T	Advance	0

#### 1.4) Participation in KAPILA/SIH Program

HEI Registered in the KAPILA Portal	C-26807	Yes
HEI Participated in the Smart India Hackathon (2022)	C-26807	No

# 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	Course End Date	Total Duration of the Course (in Days)	Total Numbers of Contact Hours of the Course	Mod Deliv
1	Intellectual Property Rights	GE8075	2020-21	Elective Course	Bachelor	ELECTRICAL AND ELECTRONICS ENGINEERING	3	18-02- 2021 00:00:00	21-06- 2021 00:00:00	124	45	Offli
2	Intellectual Property Rights	GE8075	2020-21	Elective Course	Bachelor	Mechanical Engineering	3	18-02- 2021 00:00:00	21-06- 2021 00:00:00	124	45	Offli
3	Foundation Skills In Integrated Product Development	GE8072	2020-21	Elective Course	Bachelor	Civil Engineering	3	18-02- 2021 00:00:00	21-06- 2021 00:00:00	124	45	Offli
4	Entrepreneurship Development	MG8091	2020-21	Elective Course	Bachelor	Mechanical Engineering	3	18-02- 2021 00:00:00	21-06- 2021 00:00:00	124	45	Offli
5	Intellectual Property Right	GE8075	2020-21	Elective Course	Bachelor	Civil Engineering	3	18-02- 2021 00:00:00	21-06- 2021 00:00:00	124	45	Offli
6	INTELLECTUAL PROPERTY RIGHTS	GE8075	2020-21	Elective Course	Bachelor	Computer Science and Engineering	3	18-02- 2021 00:00:00	21-06- 2021 00:00:00	124	45	Offli
7	INTELLECTUAL PROPERTY RIGHTS	GE8075	2020-21	Elective Course	Bachelor	Electronics and Communication Engineering	3	18-02- 2021 00:00:00	21-06- 2021 00:00:00	124	45	Offli

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	Course End Date	Total Duration of the Course (in Days)	Total Numbers of Contact Hours of the Course	Mod Deliv
8	Consumer Behaviour	BA5002	2020-21	Core Course	Master	Master of Business Administration	3	18-02- 2021 00:00:00	21-06- 2021 00:00:00	124	45	Offli
9	STRATEGIC MANAGEMENT	BA5302	2020-21	Core Course	Master	Master of Business Administration	3	18-02- 2021 00:00:00	21-06- 2021 00:00:00	124	45	Offli

4

### 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	Program Start Date	Program End Date	Total Duration of the Course (in Days)	Total Numbers of Contact Hours of the Course	Mod€ Deliv
1	Sketch up to layout software for construction works	2021-22	Short-term Certificate Program	Self Sponsored/Supported	CIVIL	23-08- 2021 00:00:00	02-09- 2021 00:00:00	11	30	Offlir
2	Estimation and Quantity Surveying	2021-22	Short-term Certificate Program	Self Sponsored/Supported	CIVIL	18-04- 2022 00:00:00	28-04- 2022 00:00:00	11	30	Offlir
3	Design of Networking Concepts	2020-21	Short-term Certificate Program	Self Sponsored/Supported	ELECTRONICS AND COMMUNICATION ENGINEERING	07-09- 2020 00:00:00	23-09- 2020 00:00:00	17	30	Offlir
4	Simulation of Antenna using HFSS	2020-21	Short-term Certificate Program	Self Sponsored/Supported	ELECTRONICS AND COMMUNICATION ENGINEERING	02-02- 2021 00:00:00	19-02- 2021 00:00:00	18	30	Offlir
5	Basics of PCB Design	2021-22	Short-term Certificate Program	Self Sponsored/Supported	ELECTRONICS AND COMMUNICATION ENGINEERING	11-10- 2021 00:00:00	27-10- 2021 00:00:00	17	30	Offlir
6	Real Time Embedded System	2021-22	Short-term Certificate Program	Self Sponsored/Supported	ELECTRONICS AND COMMUNICATION ENGINEERING	23-02- 2022 00:00:00	12-03- 2022 00:00:00	18	30	Offlir
7	PEGA	2020-21	Short-term Certificate Program	Self Sponsored/Supported	COMPUTER SCIENCE AND ENGINEERING	10-08- 2020 00:00:00	25-08- 2020 00:00:00	16	30	Offlir
8	WEB APPLICATION	2020-21	Short-term Certificate Program	Self Sponsored/Supported	COMPUTER SCIENCE AND ENGINEERING	07-01- 2021 00:00:00	26-01- 2021 00:00:00	20	30	Offlir

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	Program Start Date	Program End Date	Total Duration of the Course (in Days)	Total Numbers of Contact Hours of the Course	Mode Deliv
9	PEGA	2021-22	Short-term Certificate Program	Self Sponsored/Supported	COMPUTER SCIENCE AND ENGINEERING	02-08- 2021 00:00:00	25-08- 2021 00:00:00	24	30	Offlir
10	WEB APPLICATION	2021-22	Short-term Certificate Program	Self Sponsored/Supported	COMPUTER SCIENCE AND ENGINEERING	01-02- 2022 00:00:00	15-02- 2022 00:00:00	15	30	Offlir
11	Designing Digital Circuits with CMOS	2020-21	Short-term Certificate Program	Self Sponsored/Supported	ELECTRICAL AND ELECTRONICS ENGINEERING	07-09- 2020 00:00:00	23-09- 2020 00:00:00	17	30	Offlir
12	Industrial Training on PLC and SCADA	2020-21	Short-term Certificate Program	Self Sponsored/Supported	ELECTRICAL AND ELECTRONICS ENGINEERING	02-02- 2021 00:00:00	19-02- 2021 00:00:00	18	30	Offlir
13	Hands on Training onPCB Design	2021-22	Short-term Certificate Program	Self Sponsored/Supported	ELECTRICAL AND ELECTRONICS ENGINEERING	13-04- 2022 00:00:00	30-04- 2022 00:00:00	18	30	Offlir
14	Practical approach for Electrical design and Estimation in Small and Medium Industries	2021-22	Short-term Certificate Program	Self Sponsored/Supported	ELECTRICAL AND ELECTRONICS ENGINEERING	12-05- 2022 00:00:00	28-05- 2022 00:00:00	17	30	Offlir
15	Estimation and Quantity Surveying	2020-21	Short-term Certificate Program	Self Sponsored/Supported	CIVIL	18-01- 2021 00:00:00	29-01- 2021 00:00:00	12	30	Offlir
16	Sketch up to layout software for construction works	2020-21	Short-term Certificate Program	Self Sponsored/Supported	CIVIL	28-12- 2020 00:00:00	09-01- 2021 00:00:00	13	30	Offlir
17	Training onPersonality Development	2020-21	Short-term Certificate Program	Self Sponsored/Supported	МВА	11-09- 2020 00:00:00	28-09- 2020 00:00:00	18	30	Offlir
18	Knowledge and Skill of Effective Entrepreneur	2020-21	Short-term Certificate Program	Self Sponsored/Supported	МВА	09-04- 2021 00:00:00	19-04- 2021 00:00:00	11	30	Offlir
19	Training onPersonality Development	2021-22	Short-term Certificate Program	Self Sponsored/Supported	МВА	01-11- 2021 00:00:00	19-11- 2021 00:00:00	19	30	Offlir
20	Knowledge and Skill of Effective Entrepreneur	2021-22	Short-term Certificate Program	Self Sponsored/Supported	МВА	14-05- 2022 00:00:00	28-05- 2022 00:00:00	15	30	Offlir

4

•

# 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	Innovation Cell	SAIIC	Dr.N.Karthikeyan	9943546569	ceosaiic@syedengg.ac.in	Mentoring Support,Pre- Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development)
2	Innovation Cell	THERMAL LABORATORY I & II	Mr. T. DHARMAPRABHAKARAN	9047951189	dharmajo92@gmail.com	Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development)
3	Innovation Cell	CAD/CAM LABORATORY	Mr.S.Rajesh Babu	9789009151	rajeshbabusaec@gmail.com	Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development)
4	Innovation Cell	Manufacturing Technology Laboratory I & II	Dr.K.Senthil Kumar	9442942162	ksenthilme1975@syed.engg.ac.in	Mentoring Support
5	Innovation Cell	Mechatronics Laboratory	Mr.C.Thirugnanam	9578121902	cthirumech1971@gmail.com	Mentoring Support
6	Innovation Cell	Metrology and MeasurementsLaboratory	Mr.R.Raja	9442230013	raja.renu7@gmail.com	Mentoring Support
7	Innovation Cell	Fluid Mechanics Laboratory	Mr.R.Raja	9442230013	raja.renu7@gmail.com	Mentoring Support
8	Innovation Cell	Dynamics Laboratory	Mr.P.Senthil Kumar	9787501632	senthiljai046@gmail.com	Mentoring Support
9	Innovation Cell	Engineering Practice Laboratory	Dr.K.Senthil Kumar	9442942162	ksenthilme1975@syedengg.ac.in	Mentoring Support
10	Innovation Cell	Strength of Materials Laboratory	Mr. T. DHARMAPRABHAKARAN	9047951189	dharmajo92@gmail.com	Mentoring Support
11	Innovation Cell	Research Laboratory	Dr.K.Senthil Kumar	9442942162	ksenthilme1975@syedengg.ac.in	Mentoring Support
12	Innovation Cell	Electrical Machines Laboratory	Dr.G.S.Naganathan	9865144965	gsn@syedengg.ac.in	Mentoring Support
13	Innovation Cell	Power Electronics Laboratory	Dr.S.Aiswarya	9488006122	sa@syedengg.ac.in	Mentoring Support
14	Innovation Cell	Instrumentation & Control system Laboratory	Dr.M.Senthil Kumar	9994577576	msen@syedengg.ac.in	Mentoring Support
15	Innovation Cell	Computer and Embedded Systems Laboratory	Mr. T. Arun Prasath	8124391621	arunprasath@syedengg.ac.in	Mentoring Support
16	Innovation Cell	Project Laboratory	Mr. M. Paul Jeyaraj	8940467896	mpj@syedengg.ac.in	Mentoring Support

Sr. No.	Type of the Unit	Name of Unit	In-charge Name	Contact no	Email	Govt. Schemes
17	Innovation Cell	Environmental Engineering Laboratory	Mr. G.Manikandan	8940718701	maniganesan.civil@gmail.com	Mentoring Support
18	Innovation Cell	Computer Aided Design and Drafting Laboratory	Mr. G.Karunakaran	6374767201	karunakaran.gkk@gmail.com	Mentoring Support
19	Innovation Cell	Soil Mechanics Laboratory	Mrs. T.Senbagam	9677585939	senbagambecivil@gmail.com	Mentoring Support
20	Innovation Cell	Hydraulic Engineering Laboratory	Ms. T. Akshaya	8428684503	akshaya@syedengg.ac.in	Mentoring Support
21	Innovation Cell	Concrete and Highway Engineering Laboratory	Mrs. J. EstherBaby	8675588890	jestherbaby90@gmail.com	Mentoring Support
22	Innovation Cell	Surveying Laboratory	Mrs. G.Rajeswari	6380822356	rajicivil3010@gmail.com	Mentoring Support
23	Innovation Cell	Strength of Materials Laboratory	Mr. N.Saranraj	9597406741	sarantkn21@gmail.com	Mentoring Support
24	Innovation Cell	DBMS Laboratory	Mr. B. John Samuel	9486078181	john_samuel@syedengg.ac.in	Mentoring Support
25	Innovation Cell	Data Structure Laboratory	Mr. B. John Samuel	9486078181	john_samuel@syedengg.ac.in	Mentoring Support
26	Innovation Cell	Python Laboratory	Mrs. C. Indra Devi	8610255520	anuindra@syedengg.ac.in	Mentoring Support
27	Innovation Cell	Communication Laboratory	Mrs. B. Nithyakalyani	9894048187	nithyakalyani@syedengg.ac.in	Mentoring Support
28	Innovation Cell	Multi Testing Engine at Thermal Engineering Laboratory	Dr. S. Karthikeyan	9843520062	skarthikeya74@gmail.com	Mentoring Support
29	Innovation Cell	Signal Processing Laboratory	Mr. S. Praveen Samuel Washburn	7904879123	praveensamuel@syedengg.ac.in	Mentoring Support
30	Innovation Cell	Communication Laboratory	Mrs. A. Valanarasi	8903354817	valanvaz@syedengg.ac.in	Mentoring Support
31	Innovation Cell	Microwave Laboratory	Mr. J. Sakubar Sadiq	9942915751	sadiqjainulabideen@syedengg.ac.in	Mentoring Support
32	Innovation Cell	Electronics Laboratory	Dr. S. Murugeswari	9942042076	murugeskabilan@syedengg.ac.in	Mentoring Support
33	Innovation Cell	Project Laboratory	Dr. S. M. H. Sithi Shameem Fathima	6383892654	shameem@syedengg.ac.in	Mentoring Support

#### 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	SAIIC	Dr.N.Karthikeyan	9943546569	ceosaiic@sedengg.ac.in	MSME,Own Resource	
2	Multi Testing Engine at Thermal Engineering Lab	Dr. S. Karthikeyan	9843520062	skarthikeya74@gmail.com	Own Resource	

#### 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
1	IPR Cell	IPR Cell	Dr.S.Selvaperumal	9940790400	eeehod@syedengg.ac.in	Mentoring Support,Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development),Incubation Facility Support (Innovative Business Model to Startup and Market Linkage & Development)

# Section 4: Generation and Support of Prototypes / Innovations at HEI and Recognition received (AY 2020-21 & 2021-22)

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	Contact No	Email
1	DESIGN AND IMPLEMENTATION OF FIRE FIGHTING ROBOT	Academic Requirement/Study Project	2021-22	TRL 6: Prototype system tested in intended environment close to expected performance	DHARMAPRABHAKRAN.T	Faculty		dharmajo92@gı
2	DESIGN AND FABRICATION OF MODERN PETROL PUMP SYSTEM BASED ON RFID	Academic Requirement/Study Project	2021-22	TRL 4: Small scale prototype built in a laboratory environment ("ugly" prototype)	DHARMAPRABHAKRAN.T	Faculty		dharmajo92@gı

# 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)

							FY of Started Receiving		
							Support		Current
						Startup/Venture	from the		Engageme
			CIN			Recognized by	Incubation	Team	of Team
Sr.	Startup/Venture	Startup/Venture	No/LLP/OPC/RC	GST	FY of	DPIIT/Startup	unit at the	Lead/Founder	lead/Foun
No.	Name	Registered as	No	No	Establishment	, . India	Institute	Name	in Institut
			-						

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)

		o innovacion a start	•			
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	VI Microsystems Pvt. Ltd.	Knowledge/Mentoring Agency	5	Active	10-02-2020	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
2	Thiru Murugan Trading	Non Govt. Agency	3	Active	15-03-2020	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
3	Jega steels and Industrial	Non Govt. Agency	3	Active	15-06-2020	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
4	Accent Techno soft	Non Govt. Agency	3	Active	07-02-2020	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
5	CADD centre Training service	Non Govt. Agency	1	Closed	07-06-2021	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
6	National Highway Authority Of India	Govt. Agency (Central)	3	Active	14-06-2020	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
7	Roophakavi Power Pvt. Ltd	Non Govt. Agency	15	Active	21-07-2020	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
8	Tamilnadu Pollution Control Board	Govt. Agency (State)	10	Active	06-06-2020	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
9	VRM Energy Consultancy Services Pvt. Ltd	Non Govt. Agency	18	Active	11-01-2020	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
10	BlueOshan Scholarshin	Non Govt. Agency	1	Active	26-09-2022	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
11	UNITED ECONOMIC FORUM	Non Govt. Agency	2	Active	04-02-2022	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
12	The council of engineering and technology	Govt. Agency (State)	2	Active	09-03-2022	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo

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
13	campus to corporate program	Non Govt. Agency	2	Inactive	09-02-2022	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo
14	Crescent Innovation & Incubation Council	Incubation Unit	1	Inactive	04-02-2022	View (/Uploads/Institute/ARI-C-26807/2021-22/Collabo

### 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	Electrical Machines - I Laboratory Manual	Copy Right	L-99713/2021	22-02-2021	No
2	Power Electronics Laboratory Manual	Copy Right	L-91964/2020	08-06-2020	No
3	Simulation of Power Electronics Circuits Using PSPICE	Copy Right	L-94406/2020	07-09-2020	No
4	Control Systems Laboratory Manual	Copy Right	L-93352/2020	31-07-2020	No
5	Electric Balance Scooter	Design	345156-001	23-06-2021	No
6	Solar Powered Laser Light	Design	354770-001	11-12-2021	No
7	Agricultural Robot for Pesticide Spraying	Design	355747-001	29-12-2021	No
8	Solar Biomass Integrated Crop Dryer	Design	359639-001	01-03-2022	No
9	A Hunting Camera	Design	342264-001	11-04-2021	No

#### 7.2) Patents Filed by HEI

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
1	A Novel PSO based automated optimally controlled watering system for a Coriander plant field using Wireless Sensor Network	201941035891	01-01-1900
2	PERFORMANCE CHARACTERISTICS OF SELF EXCITED CAGE INDUCTION GENERATOR UNDER VARYING LOAD AND SPEED CONDITIONS	202041053914	01-01-1900
3	THIRTY-ONE LEVELS ASYMMETRIC CASCADED H-BRIDGE MULTILEVEL INVERTER WITH REDUCED NUMBER OF SWITCHES	202041022679	01-01-1900

Sr. No.	Title/Name of Patent	IP Registration Number	Date of Filed/Published
4	IT FOR RELAY PROTECTION (INTERNET BASED)	202041009641	01-01-1900
5	STEADY STATE PERFORMANCE ANALYSIS OF SELF EXCITED SLIP RING INDUCTION GENERATOR	202041009638	01-01-1900
6	POWER SCHEDULING OF MICRO-GRID IN RADIAL DISTRIBUTION SYSTEM	202041009636	01-01-1900
7	SMART APPROACH FOR THE DETECTION OF DIABETIC RETINOPATHY AND RETINOPATHY OF PREMATURITY USING THE RETINAL IMAGES	202041009634	01-01-1900
8	G GLASS FOR ELECTRICAL POWER GENERATION AND ELECTRICAL ENERGY STORAGE	201941046543	01-01-1900
9	G-GLASS SMART MANUFACTURING UNIT	201941046540	01-01-1900
10	COAL FLOW REGULATION USING MODEL BASED CONTROLLERS IN THERMAL POWER PLANT	201941046538	01-01-1900
11	PERFORMANCE IMPROVEMENT OF INDUCTION GENERATOR IN GRID INTEGRATED WIND ENERGY CONVERSION SYSTEM	201941046537	01-01-1900
12	WIRELESS SENSOR NETWORK BASED DATA LOGGING AND ANN BASED MAXIMUM POWER POINT TRACKING FOR A LARGE PHOTO VOLTAIC FARM	201941035892	01-01-1900

### 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	2020104350	An energy storage system for distributed renewable energy source in distribution, Network	26-12-2020	Granted	2021	Co-Applicant	View (/Uploads/Institute/PatentFiledNew/A
2	2021100411	Method for regulating concentration of solution in CSTR process using fuzzy controller	22-01-2021	Granted	2021	Co-Applicant	View (/Uploads/Institute/PatentFiledNew/A
3	2021100846	An automatic flying robotic system	10-02-2021	Granted	2021	Co-Applicant	View (/Uploads/Institute/PatentFiledNew/A
4	202041009634	Smart Approach For The Detection Of Diabetic Retinopathy And Retinopathy Of Prematurity Using The Retinal Images	06-03-2020	Published	2020	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A
5	202041009636	Power Scheduling of Micro-Grid in Radial Distribution System	06-03-2020	Published	2020	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A

			l				
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
6	202041009638	Steady State Performance Analysis of Self Excited Slip Ring Induction Generator	06-03-2020	Published	2020	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A
7	202041009641	IT for Relay Protection (Internet Based)	06-03-2020	Published	2020	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A
8	202041022679	Thirty-One Levels Asymmetric Cascaded H- Bridge Multilevel Inverter With Reduced Number of Switches	29-05-2020	Published	2020	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A
9	202041053914	Performance characteristics of self-excited cage Induction Generator under varying Load and Speed conditions	11-12-2020	Published	2020	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A
10	2020101618	GENOMIC PROCESSING EMBEDDED SYSTEM FOR DATASET GENERATION AND DEEP ANALYSIS	03-08-2020	Granted	2020	Co-Applicant	View (/Uploads/Institute/PatentFiledNew/A
11	202041001559	AUTOMOTIVE ENGINE CONTROL SYSTEM FOR PREVENTING DRIVERS WHO ARE IN INEBRIATED CONDITION	14-01-2020	Published	2020	Co-Applicant	View (/Uploads/Institute/PatentFiledNew/A
12	202041032680	: PREPARATION OF BIO-GREEN ADSORBENT OF EM BASED KITCHEN WASTE COMPOST AND WATER HYACINTH WASTE COMPOST	30-07-2020	Published	2020	Co-Applicant	View (/Uploads/Institute/PatentFiledNew/A

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
13	202041046568	: INTEGRATING ENCRYPTION AND ENCAPSULATION TO IMPROVE MULTILEVEL SECURITY IN IOT NETWORK SYSTEM	26-10-2020	Published	2020	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A
14	202041051696	Complete Multi Storeyed Residence Water management using SCADA through IOT Sensor and Cloud System	27-11-2020	Published	2020	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A
15	202041057084	MULTISTAGE, FILTRATION OF INDUSTRIAL WASTE WATER WITH AUTOMATED SUPERVISORY CONTROL THROUGH IOT CLOUD COMPUTING SENSOR NETWORK SYSTEM(ICCSNS)	30-12-2020	Published	2021	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A
16	202141001385	Intelligent Shoes for the uneven walking area for visually challenged persons	12-01-2021	Published	2021	Other(Individual)	View (/Uploads/Institute/PatentFiledNew/A

### 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	Date of Transferred Technology
1	NA	Non-IP/Non- Patented Technology	NA	Other organisation/Agency	NA	13-10-2022

#### **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. PERIYASAMY M** (Head of Institute) and **Dr. SELVAPERUMAL S** (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

29/10/2022

Dr. PERIYASAMY M, Head of the Institution, SYED AMMAL ENGINEERING COLLEGE, Ramanathapuram, Tamil Nadu Nodal officer

29/10/2022

Dr. SELVAPERUMAL S , Nodal Officer, SYED AMMAL ENGINEERING COLLEGE, Ramanathapuram, Tamil Nadu