



## Government Engineering College, Valsad [ ARI-C-135 ] [ C-135 ]

### 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 | Yes    |
| Institute has Action Plans for Implementation of the I&E Policy          | No     |

**Contact:**

|               |                                |
|---------------|--------------------------------|
| Faculty Name: | Dr Rajesh C. Malan             |
| Designation:  | Associate Professor in Physics |
| Email ID:     | rcmalan@gecv.ac.in             |
| Mobile No.    | 9725150991                     |

#### 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)                    |               |
| IIC 3.0 (2020-21)                    | 3.5           |
| IIC 4.0 (2021-22)                    | 3.5           |

**Contact:**

|                                 |                              |
|---------------------------------|------------------------------|
| IIC President of the Institute: | Dr. Rajesh C. Malan          |
| Designation:                    | Assistatn Professor, Physics |
| Email ID:                       | rcmalan@gecv.ac.in           |
| Mobile No.                      | 9725150991                   |

### 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       | Prof. Rahul V. Prajapati    | Advance           | 0   |
| 2       | Prof. Shirish K. patel      | Advance           | 6   |
| 3       | Prof. Nitin I. Patel        | Advance           | 0   |
| 4       | Prof. Dhaval T. Barot       | Basic             | 0   |
| 5       | Prof. Vijay R. Visavaliya   | Advance           | 0   |
| 6       | Dr. Sanjay Kumar Srivastava | Advance           | 2   |
| 7       | Prof. Meera Kunwarani       | Advance           | 2   |
| 8       | Dr. Rajesh Malan            | Advance           | 4   |
| 9       | Bhoomika Domadiya           | Basic             | 0   |

### 1.4) Participation in KAPILA/SIH Program

|  |       |     |
|--|-------|-----|
| HEI Registered in the KAPILA Portal                  | C-135 | Yes |
| HEI Participated in the Smart India Hackathon (2022) | C-135 | 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 | Course End Date | Total Durat of the Cours (in Da |
|---------------|-----------------|-------------|---------------|----------------|-----------------|---|--------------------|-------------------|-----------------|---------------------------------|
| No Data Found |                 |             |               |                |                 |   |                    |                   |                 |                                 |

### 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 Da |
|------|---|---------------|-----------------------------------|---|--|------------------|
| 1    | Multi-Objective Optimization Algorithm and Engineering Applications   | 2021-22       | Faculty Development Program (FDP) | Central Govt. Agency                                    | GEC Valsad   | 22-02-2000:00:00 |
| 2    | COMPREHENSIVE ONLINE INTELLECTUAL PROPERTY RIGHTS (IPR)               | 2020-21       | Faculty Development Program (FDP) | State Govt. Agency                                      | Department of Technical Education Gujarat                  | 01-01-2000:00:00 |
| 3    | Current Trends of Power Electronics Applications in Electric Vehicles | 2021-22       | Faculty Development Program (FDP) | Central Govt. Agency                                    | Electrical Department GEC Valsad                           | 07-06-2000:00:00 |

| 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 |
|------|---|---------------|--|---|--|--------------------|
| 4    | Startup Runway -A capacity building programme - Platform for 3000 Innovators and start ups to acquire functional skills to accelerate | 2020-21       | Entrepreneurship Development Program (EDP) | State Govt. Agency                                      | G E C Valsad   | 16-09-20 00:00:00  |
| 5    | Life and Employability Skill  | 2020-21       | Short-term Certificate Program             | State Govt. Agency                                      | Governemnt Engineering College Valsad                      | 10-11-20 00:00:00  |
| 6    | English Functional Skill development  | 2020-21       | Short-term Certificate Program             | State Govt. Agency                                      | GEC Valsad   | 22-02-20 00:00:00  |
| 7    | English Functional Skill developmen   | 2020-21       | Short-term Certificate Program             | State Govt. Agency                                      | GEC Valsad   | 04-03-20 00:00:00  |
| 8    | Life and Employability Skill  | 2021-22       | Short-term Certificate Program             | State Govt. Agency                                      | GEC Valsad   | 09-03-20 00:00:00  |
| 9    | Life and Employability Skill  | 2021-22       | Short-term Certificate Program             | State Govt. Agency                                      | GEC Valsad   | 03-08-20 00:00:00  |
| 10   | English Functional Skill developmen   | 2021-22       | Short-term Certificate Program             | State Govt. Agency                                      | GEC Valsad   | 03-01-20 00:00:00  |
| 11   | Life and Employability Skill  | 2021-22       | Short-term Certificate Program             | State Govt. Agency                                      | GEC Valsad   | 30-09-20 00:00:00  |

| 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 |
|------|--------------------------------------|---------------|--------------------------------|---|--|--------------------|
| 12   | English Functional Skill development | 2021-22       | Short-term Certificate Program | State Govt. Agency                                      | GEC Valsad   | 02-01-2000:00:00   |

### 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       | Innovation Cell  | Pre Incubation_Mech | Prof. S K Patel | 9427716989 | skpatel@gecv.ac.in | Mentoring Support, Pre-Incubation Facility Support (Ide: to Prototype and Innovative Business Plan Development) |

| Sr. No. | Type of the Unit | Name of Unit                     | In-charge Name      | Contact no | Email                  | Govt. Schemes  |
|---------|------------------|----------------------------------|---------------------|------------|------------------------|--|
| 2       | Innovation Cell  | Pre Incubation_Env               | Prof. M K Kunwarani | 9558183082 | mkkunwarani@gecv.ac.in | Mentoring Support,Pre-Incubation Facility Support (Ide: to Prototype and Innovative Business Plan Development) |
| 3       | Innovation Cell  | Pre Incubation_Civil             | Prof. D. T. Barot   | 9820957270 | dtbarot@gecv.ac.in     | Mentoring Support,Pre-Incubation Facility Support (Ide: to Prototype and Innovative Business Plan Development) |
| 4       | Innovation Cell  | Pre Incubation_Chemical          | H M Jariawala       | 8320227294 | hmjarwala@gecv.ac.in   | Mentoring Support,Pre-Incubation Facility Support (Ide: to Prototype and Innovative Business Plan Development) |
| 5       | Innovation Cell  | Pre-incubation at ASH Department | Dr. Rajesh C. Malan | 9725150991 | rcmalan@gecv.ac.in     | Mentoring Support,Pre-Incubation Facility Support (Ide: to Prototype and Innovative Business Plan Development) |

| Sr. No. | Type of the Unit | Name of Unit  | In-charge Name    | Contact no | Email              | Govt. Schemes  |
|---------|------------------|---|-------------------|------------|--------------------|--|
| 6       | Innovation Cell  | Pre Incubation centre Electrical Engineering Department | Prof. N. I. Patel | 9727205422 | nipatel@gecv.ac.in | Mentoring Support,Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan Development) |

### 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       | Central Electriacal/Electronics /Robotics Incubation centre | Dr. K. L. Mokariya | 9825785839 | klmokariya@gecv.ac.in | Own Resource,Other Central/State Government |
| 2       | Inubation centre@Mech Workshop                              | Sanat V Damanaiya  | 8320295961 | svdmania@gecv.ac.in   | Own Resource,Other Central/State Government |

### 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         | Central IPR cell | Prod. S V Damaaniya | 832295961  | svdamaniya@gecv.ac.in | Mentoring Support,Pre-Incubation Facility Support (Idea to Prototype and Innovative Business Plan 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 |
|---------|--|---|---|---|--------------------------|
| 1       | Modified drill tool design for maximum flexibility application for small scale industries with dimension scale | Academic Requirement/Study Project                      | 2021-22                                 | TRL 6 : Prototype system tested in intended environment close to expected performance | ROHAN SUNIL BADGUJAR     |
| 2       | PLC, IoT, Controller Based Smart, Efficient, Flexible Street Light With Advance Management Control System      | Academic Research Assignment/Industry Sponsored Project | 2021-22                                 | TRL 6 : Prototype system tested in intended environment close to expected performance | GANESH RAGHUNATH PATIL   |
| 3       | FOLDABLE ROOFTOP FOR TWO WHEELERS  | Independent Assignment/Non-academic Study Project       | 2021-22                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)    | VAIDYAA ROHAN RAJESHBHAI |



| Sr. No. | Innovation Name                | Developed as part of                              | FY of Development (FY. 2020-21,2021-22) | TRL Stage  | Team Lead/Innovator Name           |
|---------|--------------------------------|---|---|--|------------------------------------|
| 4       | Fruit Harvester                | Academic Requirement/Study Project                | 2021-22                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | RIYAZ<br>ABDULRAZAK<br>DESHARIA    |
| 5       | Fruit Harvester                | Academic Requirement/Study Project                | 2021-22                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | RIYAZ<br>ABDULRAZAK<br>DESHARIA    |
| 6       | Pedal operated Washing Machine | Academic Requirement/Study Project                | 2021-22                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | seladiya shubham r.                |
| 7       | ADJUSTABLE BROOM               | Independent Assignment/Non-academic Study Project | 2021-22                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | CHAURESIYA<br>NITESH<br>RADHESHYAM |

| Sr. No. | Innovation Name   | Developed as part of                              | FY of Development (FY. 2020-21,2021-22) | TRL Stage  | Team Lead/Innovator Name       |
|---------|---|---|---|--|--------------------------------|
| 8       | SENSOR BASED AUTOMATIC PLANT CLEANING SYSTEM                                    | Independent Assignment/Non-academic Study Project | 2021-22                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | SAGAR DEVANI                   |
| 9       | Automatic robot for floor cleaning sweeping and sterilizing.                    | Independent Assignment/Non-academic Study Project | 2021-22                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Darpan                         |
| 10      | Canvas Air Cooler   | Academic Requirement/Study Project                | 2021-22                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Ajaysinh Sushilkumar Sengar    |
| 11      | TRANSFORMATION OF LOW-COST STARCH TOWARDS BIOPLASTICS AND THEIR CHARATERIZATION | Academic Requirement/Study Project                | 2021-22                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | HRITVIKKUMAR                   |
| 12      | Production of Bioenergy from industrial and agricultural waste                  | Academic Requirement/Study Project                | 2021-22                                 | TRL 5 : Large scale prototype tested in intended environment                       | GUPTA SUNNYKUMAR SUBHASHPRASAD |

| <b>Sr. No.</b> | <b>Innovation Name</b>  | <b>Developed as part of</b>                       | <b>FY of Development (FY. 2020-21,2021-22)</b> | <b>TRL Stage</b>   | <b>Team Lead/Innovator Name</b>    |
|----------------|---|---|--|--|------------------------------------|
| 13             | PORTABLE THERMOELECTRIC COOLING KETTLE  | Academic Requirement/Study Project                | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Khushal Italiya                    |
| 14             | Unmanned firefighting and agricultural spraying drone                         | Independent Assignment/Non-academic Study Project | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Jasmeetkaur Charanjeetsingh Bassan |
| 15             | Archimedes screw type turbine for Pico hydro application                      | Academic Requirement/Study Project                | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Saindane Devanshkumar Madhukarbhai |
| 16             | DEVELOPMENT AND PERFORMANCE ANALYSIS OF DOUBLE ARCHIMEDES SPIRAL WIND TURBINE | Academic Requirement/Study Project                | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Modi Darshan Nileshkumar           |

| <b>Sr. No.</b> | <b>Innovation Name</b>                                     | <b>Developed as part of</b>                       | <b>FY of Development (FY. 2020-21,2021-22)</b> | <b>TRL Stage</b>   | <b>Team Lead/Innovator Name</b> |
|----------------|--|---|--|--|---------------------------------|
| 17             | Displacement Trouble Of Stretcher In Infirmary And Costing | Independent Assignment/Non-academic Study Project | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Hiren Thummar                   |
| 18             | Lumbar Spine Active Exoskeleton                            | Academic Requirement/Study Project                | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | MISTRY CHIRAG YOGENDRABHAI      |
| 19             | Smart irrigation system through canal water                | Academic Requirement/Study Project                | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Ankita Patel                    |
| 20             | IMMUNOBOOSTTEA   | Independent Assignment/Non-academic Study Project | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Tejas Prajapati                 |

| <b>Sr. No.</b> | <b>Innovation Name</b>                     | <b>Developed as part of</b>                       | <b>FY of Development (FY. 2020-21,2021-22)</b> | <b>TRL Stage</b>   | <b>Team Lead/Innovator Name</b>     |
|----------------|--|---|--|--|-------------------------------------|
| 21             | COD Reduction by Hydroponics               | Academic Requirement/Study Project                | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Dr. Bhadreshkumar Rameshbhai Sudani |
| 22             | ECO-INTELLIGENT HUB                        | Independent Assignment/Non-academic Study Project | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | MONALI CHAUDHARI                    |
| 23             | automatically pressurized knapsack sprayer | Academic Requirement/Study Project                | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Radadiya Harin Babubhai             |
| 24             | COMPACT HEAT EXCHANGER PURIFICATION TOOLS  | Academic Requirement/Study Project                | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | D N Patel                           |

| Sr. No. | Innovation Name  | Developed as part of                              | FY of Development (FY. 2020-21,2021-22) | TRL Stage   | Team Lead/Innovator Name       |
|---------|--|---|---|---|--------------------------------|
| 25      | Agricultural ATV   | Independent Assignment/Non-academic Study Project | 2020-21                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)    | GOHIL JANAK DHIRUBHAI          |
| 26      | Design and development of internal heat exchanger for MAC with R1234yf as a drop in replacement of R134a | Academic Requirement/Study Project                | 2020-21                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype)    | Bhatu R Patil                  |
| 27      | DEVELOPMENT OF AN ANDROID APPLICATION TO PROVIDE R.C.C. DETAILS IN DIFFERENT BUILDING COMPONENT          | Academic Requirement/Study Project                | 2020-21                                 | TRL 9 : Full commercial application, technology available for consumers               | Aayush Mehta                   |
| 28      | NOVEL GAS SENSOR FOR DETECTION OF TOXIC GASES AND VAPORS   | Academic Requirement/Study Project                | 2020-21                                 | TRL 6 : Prototype system tested in intended environment close to expected performance | Bhimraj NikunjKumar Arvindbhai |

| <b>Sr. No.</b> | <b>Innovation Name</b>                             | <b>Developed as part of</b>                       | <b>FY of Development (FY. 2020-21,2021-22)</b> | <b>TRL Stage</b>   | <b>Team Lead/Innovator Name</b> |
|----------------|--|---|--|--|---------------------------------|
| 29             | Smart pothole filler machine                       | Independent Assignment/Non-academic Study Project | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Ripal Patel                     |
| 30             | Smart pothole filler machine                       | Independent Assignment/Non-academic Study Project | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Ripal Patel                     |
| 31             | Biomanure to enhance the yield of farming products | Academic Requirement/Study Project                | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Patel Harley Dharmeshbhai       |
| 32             | AMELIORATION OF A BICYCLE                          | Independent Assignment/Non-academic Study Project | 2020-21  | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | TIKUNJKUMAR PRADIPBHAI GANDHI   |
| 33             | Innovative Domestic Solar Food Dryer               | Independent Assignment/Non-academic Study Project | 2020-21  | TRL 5 : Large scale prototype tested in intended environment                       | RANA VISHAL KAMLESHKUMAR        |

| Sr. No. | Innovation Name   | Developed as part of                              | FY of Development (FY. 2020-21,2021-22) | TRL Stage  | Team Lead/Innovator Name |
|---------|---|---|---|--|--------------------------|
| 34      | Minimize the fatal damage to vehicles and reducing injuries to people by providing safety rollers in barrier. | Academic Requirement/Study Project                | 2020-21                                 | TRL 8 : First of a kind commercial system. Manufacturing issues solved             | Raj A. Patel             |
| 35      | Solar PV based wheelchair lift for buses  | Independent Assignment/Non-academic Study Project | 2020-21                                 | TRL 4 : Small scale prototype built in a laboratory environment ("ugly" prototype) | Patel Monit Hashmukhbhai |

### 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 | FY of Started Receivin Support from the Incubati unit at tl Institute |
|---------------|----------------------|-------------------------------|-----------------------|--------|---------------------|---|---|
| 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       | Oum Elecmech Pvt. Ltd.                          | Corporate/Industry Association | UETE                                   | Active                          | 30-10-2021                        | <a href="#">View (/Uploads/I</a> |
| 2       | Valsad Nagarpalika                              | Govt. Agency (State)           | UETE                                   | Active                          | 16-10-2021                        | <a href="#">View (/Uploads/I</a> |
| 3       | Road & Building Department, Valsad              | Govt. Agency (State)           | UETE                                   | Active                          | 22-11-2021                        | <a href="#">View (/Uploads/I</a> |
| 4       | Damanganga Canal Investigation Division, Valsad | Govt. Agency (State)           | UETE                                   | Active                          | 18-10-2021                        | <a href="#">View (/Uploads/I</a> |
| 5       | Workzy Solutions, Valsad                        | Corporate/Industry Association | UETE                                   | Active                          | 29-11-2021                        | <a href="#">View (/Uploads/I</a> |
| 6       | NWRWS Department-Ambica Division, Navsari       | Govt. Agency (State)           | UETE                                   | Active                          | 18-11-2021                        | <a href="#">View (/Uploads/I</a> |
| 7       | Road & Building Department, Navsari             | Govt. Agency (State)           | UETE                                   | Active                          | 30-12-2021                        | <a href="#">View (/Uploads/I</a> |

| 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                             |
|---------|--|--------------------------------|--|---------------------------------|-----------------------------------|----------------------------------|
| 8       | Road & Building Department, Ahwa       | Govt. Agency (State)           | UETE                                   | Active                          | 31-12-2021                        | <a href="#">View (/Uploads/I</a> |
| 9       | M/S. Krishna Finechem Industries, Vapi | Corporate/Industry Association | 4yrs                                   | Active                          | 30-09-2021                        | <a href="#">View (/Uploads/I</a> |
| 10      | Kirti Alloys Steel Cast                | Corporate/Industry Association | 3yrs                                   | Active                          | 30-09-2021                        | <a href="#">View (/Uploads/I</a> |
| 11      | CADD centre- Valsad                    | Non Govt. Agency               | 3yrs                                   | Active                          | 26-11-2021                        | <a href="#">View (/Uploads/I</a> |

## 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? |
|---------------|--|------------|--|-------------------------|--|
| No Data Found |  |            |  |                         |  |

### 7.2) Patents Filed by HEI

| Sr. No. | Title/Name of Patent                         | IP Registration Number | Date of Filed/Published |
|---------|--|------------------------|-------------------------|
| 1       | Refrigerant for Vacuum based Heat Pump Cycle | 202021051077           | 24-11-2020              |
| 2       | Pyramid solar still augmented with funnel    | 202121032588           | 20-07-2021              |

| Sr. No. | Title/Name of Patent  | IP Registration Number | Date of Filed/Published |
|---------|---|------------------------|-------------------------|
| 3       | Solar and wind energy based automobile air conditioning system      | 202121032660           | 20-07-2021              |
| 4       | INTELLIGENT CURING SYSTEM FOR RCCOLUMNS                             | 202021048576           | 06-11-2020              |
| 5       | Air cooling using evaporative cooling of water through canvas tubes | 202021040732           | 21-09-2020              |

### 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       | 202121032660                       | Solar and wind energy based automobile air conditioning system | 20-07-2021              | Published                     | 2021                                     | Other(Individual)               | <a href="#">View (/t</a> |
| 2       | 202121032588                       | Pyramid solar still augmented with funnel                      | 20-07-2021              | Published                     | 2021                                     | Other(Individual)               | <a href="#">View (/t</a> |
| 3       | 202021051077                       | Refrigerant for vacuum based heat pump cycle                   | 24-11-2020              | Published                     | 2021                                     | Other(Individual)               | <a href="#">View (/t</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 |
|---------|---|-----------------|---|---------------------------|------------------|--------------------------------|
|---------|---|-----------------|---|---------------------------|------------------|--------------------------------|

| <b>Sr. No.</b> | <b>Name of Technology Licenced/Transferred /Commercialized</b> | <b>Technology Type</b> | <b>Patent/Licence Holder name (Institute Co-ownership is Must)</b> | <b>Technology Transferred to</b> | <b>Name of Licensee</b> | <b>Date of Transferred Technology</b> |
|----------------|--|------------------------|--|----------------------------------|-------------------------|---------------------------------------|
| No Data Found  |  |                        |  |                                  |                         |                                       |

# Declaration

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

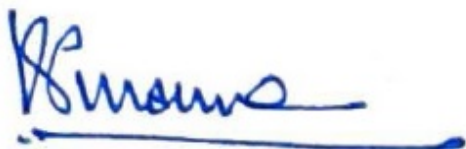
## Joint Declaration by the Head of the Institute and Nodal Officer

Dear Sir,

Herewith, myself **Dr. V. S. Purani** (Head of Institute) and **Dr. Rajesh C. Malan** (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

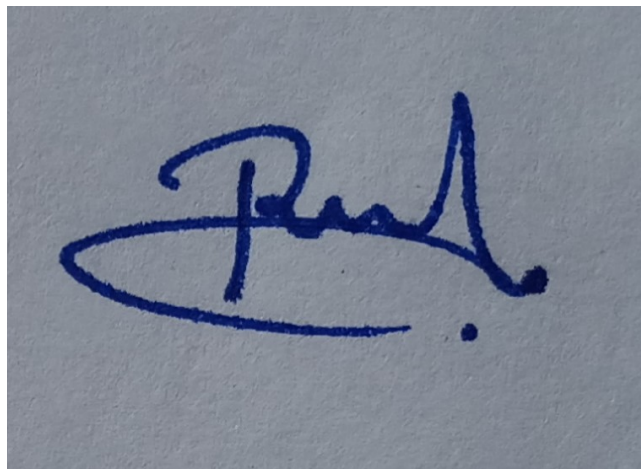
The Head of Institute



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Dr. V. S. Purani,  
Head of the Institution,  
Government Engineering College, Valsad,  
Valsad, Gujarat

Nodal officer



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Dr. Rajesh C. Malan,  
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