# Annual Report 2020-21 Vivekanand Education Society's Institute of Technology, Mumbai

## A. About VESIT -Institution Innovation Council

Vivekanand Education Society was founded in 1959 by Shri. Hashu Advani, along with ten other members, shared the dream of providing qualitative education to the youth of our country. In the beginning, Vivekanand Education Society had a very modest launch, with just 256 students and six classrooms, in the humble barracks of Chembur Camp. But today, it proudly boasts of having 3, 75, 000 sq. ft. land, housing 12 buildings and 28 Institutions, ranging from a crèche to Ph.D. Centers.

Vivekanand Education Society's Institute of Technology (VESIT) was established in 1984, with the aim of providing professional education in the field of Engineering. This institute is affiliated to the University of Mumbai and follows the rules and regulations laid down by government, AICTE, and University for admission; 51% reserved for Sindhi Linguistic minority and 49% through CAP test.

### **Vision of Institute:**

• To create a vibrant knowledge-oriented environment with innovative teaching practices and to inculcate a tradition of socially conscious application of technology.

### **Mission of Institute:**

- To inculcate a culture of value based education.
- To enthuse students to develop in an ambient environment of caring and of sharing information.
- To enable students to work towards excellence in their chosen fields with a professional bent of mind.

## Journey of IIC established at the Institute

Vivekanand Education Society's Institute of Technology (VESIT) Chembur, Mumbai established Institution's Innovation Council (IIC) under the guidance of MHRD's Innovation Cell (MIC) on 12th, January 2019. The council was named as VESIT-IIC. The objective of the council is to encourage and promote the culture of innovation IPR, start-ups, entrepreneurship amongst the faculty and students.

The council conducts various entrepreneurship related activities on regular basis. The council has also conducted idea, POC, and Proto-type development competitions that boost the confidence of students towards innovation and start-ups. Faculty members have participated in the MIC innovation ambassador training program. Some faculty have contributed as mentors for the other IICs. The IIC has been recognized for the exclusive performance for the year 2018-19 and 2019-2020. The council was awarded with 4.5 Star rating by the MIC in 2019-20.

VESIT IIC majorly focuses on creating a vibrant local innovation ecosystem, start-up supporting mechanism in our institute alone with preparing the Institute for Atal Ranking of Institutions on Innovation Achievements Framework, establishing Function Ecosystem for Scouting Ideas and Pre-incubation of Ideas and developing better cognitive ability for Technology Students.

#### **Functions of VESIT IIC:**

- To conduct various innovation and entrepreneurship-related activities prescribed by Central MIC in time bound fashion.
- Identify and reward innovations and share success stories.
- Organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators.
- Network with peers and national entrepreneurship development organizations.
- Create an Institution's Innovation portal to highlight innovative projects carried out by the institution's faculty and students.
- Organize Hackathons, idea competition, mini-challenges etc. with the involvement of industries.

## **Objectives of VESIT IIC:**

- To inculcate new innovative ideas and thoughts among the students.
- To bring new perspectives in the innovative field.
- To have a handshake with the entrepreneurs and innovators.
- To widen the student's cognitive skills.
- To implement Pre-incubation units for reducing the technology de-risking.

## B. Key functionaries at the IIC VESIT:

VESIT IIC Key functionaries comprise faculty members from each department headed by the Principal Dr. J M Nair and Dr. M. Vijaylakhshmi, Vice Principal and President of IIC as shown below.

- Dr. M. Vijayalakshmi, President, Vice Principal, VESIT
- Dr. Nadir Charniya, Vice President,
- Dr. Gresha S Bhatia, Convener
- Dr.Shiv Kumar Goel, NIRF coordinator
- Dr. Rajani Mangala, LBS coordinator, Member
- Dr.Parmeshwar Birajdar, Innovation activity coordinator
- Dr. Anjali Yeole, Internship Activity Coordinator
- Ms.Charusheela Nehete, ARIIA Coordinator
- Mr. Amit Singh, Startup activity Coordinator
- Mr.Mrugendra Vasmatkar, IPR activity coordinator
- Ms. Asha Bharambe, Member
- Dr. Dhanamma Jagli, Member
- Ms. Jayashree Ramkrishnan, Member
- Dr. Maya Bhat, Member
- Ms.Lifna C. S., Member
- Mr. Sunny Nahar, Social media coordinator, Member
- Mr. Vijay Shejwalkar, Social media coordinator, Member
- Ms. Sunita Sahu, Social media coordinator, Member

C. Portfolio/graphical/Tabular representation of Resource strength (human capital and Physical capital) of the IIC institution

| SR.NO | Heads                                    | Numbers   |
|-------|--|---|
| 1     | Total No. of IIC Members                 | Total=76 Faculties=18 Students=58                     |
| 2     | Total No. of IAs                         | 11 Adv level:3 Basic level:8 Link:IA certificate link |
| 3     | Total No. of faculty Mentors From Portal | 02  |
| 4     | Pre-Incubation Units                     | Tinkerers lab of each department                      |
| 5     | Incubation Units:                        | 01(VESIT-Aditya Jyot<br>Innovation Centre, Mumbai)    |
| 6     | IP Facilitation Unit, If any             | External Mentor<br>Dr. Mehra Vidurneeti               |

D. Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus.

VESIT has established VESIT-Aditya Jyot Eye Innovation Centre with an objective of creating an environment conducive to encouraging aspirants to incubate their ideas including designing and developing. In addition to this, the institute also has Entrepreneurship Cell (E-cell), Tinkering lab facilities, and Research Forum.

The E-cell conducts various events with an objective of inculcating and giving insights to problems and solutions to the world of entrepreneurships. E- Cell conducts workshops, events, lectures by industry experts.

Tinkering lab facilitates the students in the implementation of innovative project ideas in the various domains. Tinkering lab also conducts training program and workshop on recent trends in technology.

Research forum conducts sessions by industry experts for faculty and students pertaining to innovations and technologies applied in various areas of specialization of departments. It also conducts workshops on Intellectual Property Rights, training on open source software and emerging trends in technologies

E. Highlight Achievements (Narrative/Graphical/tabular representation)
The VESIT-IIC has conducted various innovation, IPR, start-ups, and entrepreneurship related activities. It has also conducted idea, POC, and proto-type development competitions.

| Sr.No | Heads   | Numbers  |
|-------|---|--|
| 1     | Number and Different types of I&E and IPR activities Conducted  | 24   |
| 2     | No. of students & faculty Innovation/prototypes developed   | Nominated-5 selected for final round-1 Idea submitted:52 POC submitted:-84 Prototype submitted:-39 |
| 3     | No. of IPs generated, published and granted   | 3 (Total patents till date = 20)   |
| 4     | Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus and Honorarium to experts | Rs 35,500/-  |

F. Highlight few best IIC Faculty/Student members and their achievements/ Rewarded for the innovations at different forum

[Profile of few faculties with 2-3 line of their achievements]

| S.NO. | Name of Faculty    | Achievements/ Reward  |
|-------|--------------------|---|
| 1.    | Dr. Nadir Charniya | <ol> <li>Conducted three session in a course organised by VESIT IIC and VESCOP IIC on "AI in HealthCare: In pursuit of innovations for <i>Atma-Nirbha Bharat</i> using the promising technologies on 24 June to 1st July 2021</li> <li>Conducted a session on "Some <i>Societal Innovations</i> using Fusion on ML and Dl" on 24 May 2021 in Bharati Vidyapeeth, Pune</li> <li>Conducted a session on "Fusion on ML, DL and IoT for some <i>Innovative Applications</i>" on 22 Feb 2021 in Ramrao Adik Institute of Technology, Navi Mumbai.</li> <li>Conducted a session in AICTE sponsored training program on Green IoT 12/12/2020 at VES institute of Technology, Mumbai</li> </ol> |
| 2.    | Dr. Gresha Bhatia  | Patent filed titles"System to Monitor and Implement COVID Appropriate protocol"   |

| 3. | Dr. Anjali Yeole             | 1.Conducted session in AICTE ATAL online FDP on Challenges and opportunities of Industry 4.0 Techniques Scope in Manufacturing Industries and Manufacturing systems on 25/8/2021 topic "Industry 4.0 IoT and security technology"   |
|----|------------------------------|---|
|    |                              | 2. Conducted session in a course organised by VESIT IIC and VESCOP IIC on "Case study of IOT in Healthcare" on 1st July 2021. (FDP on AI in HealthCare: In pursuit of innovations for <i>Atma-Nirbhar Bharat</i> using the promising technologies' on 24 June to 1st July 2021) |
|    |                              | 3.Conducted session in AICTE sponsored FDP on Green IoT Phase II at VESIT 23/11/2020  |
|    |                              | 4.Conducted session in AICTE sponsored FDP on Green IoT phase III at VESIT 8/12/2020  |
| 4  | Ms. Asha<br>Bharambe, Member | Conducted sessions in a course organised by VESIT IIC and VESCOP IIC "AI in HealthCare: In pursuit of innovations for <i>Atma-Nirbha Bharat</i> using the promising technologies on 24 June to 1st July 2021  |
| 5  | Sunita Sahu                  | Evaluator for Toycathon 2021 Digital Edition (Evaluation/Judging in Grand Finale and primary evaluation both)   |

G. Highlight selected best Innovations & images with mention of inventor/innovation name.

| Title  | Organized by  | Mentors      | Images   |  |
|--|---|--------------|--|--|
| SWADESHI MICROPRO  | SWADESHI MICROPROCESSOR CHALLENGE -2020   |              |  |  |
| 1.Calibration System for<br>Nuclear Spectroscopy<br>Applications | Ministry of Electronics and Information Technology, Govt. of India in collaboration with C-DAC, IIT | Asma Parveen | Teach Design    Number Pube Generator     Precision Pube Generator     Calibration |  |
| 2.Swadeshi Battery<br>Management System                          | Madras, MyGov and MakerVillage under #Atma Nirbhar Bharat Abhiyan                                   | Gopal k      | Final Product: Battery operated MCA with portable nuclear radiation detector system and display  |  |

| 3.Business viability of proposed hardware Prototype                          |   | Dr. P. P Vaidya   |                     |
|--|---|---|---------------------|
| India Innovation Challenge Design Contest (IICDC)                            |   |   |                     |
| 1.Multi-Functional Detachable Applications For Drones                        | Department of Science and Technology (DST) and Texas Instruments (TI), anchored by NSRCEL@IIMB, powered by AICTE mission and supported by MyGov | Mrugendra M<br>Vasmatkar<br>Silver Medal<br>Winner<br>In15th<br>Inter-collegiate/In<br>stitute/Departmen<br>t Avishkar<br>Research<br>Convention:<br>2020-21,Universi<br>ty Of Mumbai |                     |
| 2.EOG Drowsiness<br>Detection System   |   | Ms. Sangeetha<br>Prasanna Ram   |                     |
| TOYCATHON 2021   |   | I   |                     |
| To help identify children of age 8-13 years how different crops look like    | MHRD  | Mrs. Ashwini Sawa   | ant                 |
| Ethnicity of India:<br>Diversity in culinary<br>practices.ਕਰधekyam<br>Bharat |   | Mrs. Priya R L, Mr  | rs. Mannat Doultani |
| Rediscovering India!!  |   | Mrugendra M Vasn  | natkar              |

H. Highlight selected start-ups established by students/faculties with mention of founder/co-founder name NA

I. List if any break through Innovations / Technology Developed at the institute (2-3 technology with 2-3 lines about technology and innovation

| Title  | Category                  | Description   | Innovator  |
|--|---------------------------|---|--|
| Green Credit<br>Management System                          | Process<br>and<br>Service | Project aims to record the contribution added by a person or an organization towards a Green environment. All green credits will be recorded and reward points will be credited to persons or member organizations accounts | Prashant Kanade  |
| Automated Crowd<br>Management in Bus<br>Transport Services | Product                   | This project intends to help the commuters to know about the live crowd density in a particular bus.  | Dr. Nadir Charniya<br>& Dr. Anjali Yeole   |
| Shoe Disinfector<br>Using Uv Light                         | Product                   | This product will disinfect the shoe sole from bacteria using UV light radiation.   | Mrs. Manisha Joshi   |
| स्वेच्छा<br>(Swechchha)                                    | Service                   | ITeS based Operation and Maintenance Monitoring System' for the Community Toilet (CT) and Public Toilet (PT) blocks in Mumbai, contributing to the Swachh Bharat Mission of the Government of India (GOI).                  | Dr.M. Vijayalakshmi,<br>Dr. Shanta Sondur,<br>Mr. Amit Singh,<br>Mrs. Pooja Shetty and<br>Mrs. Vinita Mishra |

- J. Participation of IIC-institute in various programs of Central and Stage Govt. Highlighting specially for the schemes or programs
  - ARIIA participation and Rank YES. <a href="https://vesit.ves.ac.in/storage/ARIIA.pdf">https://vesit.ves.ac.in/storage/ARIIA.pdf</a>
  - NISP Adoption status Trained Faculty, Policy Formulation, Policy Implementation: in progress
  - Smart India Hackathon etc. -Yes

## K. Detail of Social Media & Connections of IIC institute

| Sr. no | Social media platform | Social media home links             |
|--------|-----------------------|-------------------------------------|
| 1      | Instagram             | https://www.instagram.com/vesitedu/ |
| 2      | Facebook              | https://www.facebook.com/vesitedu/  |
| 3      | Twitter               | https://twitter.com/vesitedu        |
| 4      | Linkedin              | www.linkedin.com/in/vesit           |

L. Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell PRINCIPAL, VICE PRINCIPAL, Dr. Kiran Talele, Mr. Nayan Khinvasara.

## **Testimonials from VESIT Principal:**



As India celebrates 75<sup>th</sup> Independence Day, the prospect of 'India Being the next big economic powerhouse' is being discussed widely. The primary reason for this is because the working age population in India is more than the dependent population thereby creating a window of 'demographic dividend'.

To harness this dividend for higher economic growth, our students, the young population must be properly skilled for equipping them to become entrepreneurs. The MSME - Micro, Small & Medium Entrepreneurs sector is reported to be only 17%, in India, compared to 85% in Taiwan and 60% in China. So there is a need to foster an all-inclusive approach to strengthening entrepreneurship with a focus on creating competent, innovative and competitive entrepreneurs.

With this intention in mind, VESIT IIC conducted various events, lectures and workshops on Design Thinking, Innovation and Entrepreneurship in tune with AICTE & MHRD guidelines. Every year IIC cell plans innovative events to sustain the interest generated in previous years.

# **Testimonials from VESIT Vice Principal:**

From: **M Vijayalakshmi** <a href="m.vijayalakshmi@ves.ac.in">m.vijayalakshmi@ves.ac.in</a>
Date: Sat, Sep 4, 2021, 10:35
Subject: IIC Testimonial
To: Gresha Bhatia <a href="m.vijayalakshmi@ves.ac.in">qresha.bhatia@ves.ac.in</a>

IIC - Testimonial 21-22

VESIT has started innovation Council with the focus on encouraging, nurturing and developing research oriented mindset of the the young minds. With this vision, VESIT- IIC has been instrumental in encouraging our faculties and students to participate in various innovation, IPR and entrepreneurships related initiatives and perform experiments using latest technologies. VESIT- IIC has always motivated their students to further interact with renowned businessman and academicians through a number of e- cell activities

The result of this efforts can be seen from the 4.5 star rating out of 5.0 given by MHRD-IIC.

I am proud of the vision seen by MHRD - IIC and my IIC team who oversees that our students get extremely healthy environment right of learning from ideation, innovation right upto to startups.

I wish VESIT-IIC all the very best for all its future endeavors

Dr. M Vijayalakshmi IIC President, Vice Principal ,VESIT

Regards

Dr. (Mrs.) M. Vijayalakshmi

## Testimonial from Dr. Kiran Talele, SPIT, Mumbai

From: Kiran TALELE, SP-IT < kiran.talele@spit.ac.in>

Date: Sat, 28 Aug 2021, 22:26 Subject: IIC @ VESIT

To: Nadir Charniya < nadir.charniya@ves.ac.in>

Dear Professor Nadir Charniya,

Greetings from Sardar Patel Institute of Technology and Sardar Patel Technology Business Incubator, Mumbai.!

IIC cell of VESIT is committed to creating an environment which will raise the intellectual and moral standards of students. IIC is set to strive for the overall development of students, thereby enabling them to accept challenges. In tune with the vision is to build a renowned institute which will produce graduate engineers with global competency and social sensitivity. With committees like IEEE, E-Cell, IIC and many more we encourage students instill an entrepreneurial and problem solving mindset and provide all possible guidance along the way. We wish all the best to the council for their splendid accomplishment in the year 2020-2021.

Kind Regards and Many Thanks.



Reply

Forward

## Testimonial from Mr. Nayan Khinvasara, Alumni VESIT, Zylus Realty Pvt Ltd

From: Nayan Khinvasara <nayank@gmail.com> Date: Mon, Aug 30, 2021 at 9:15 AM Subject: Testimonial for IIC

To: Nadir Charniya < nadir.charniya@ves.ac.in>

Dear Sir,

I appreciate the work the entire team is doing for IIC. Please see my testimonial below.

The Institute Innovation Council at VES has proven to be an invaluable source of continued learning for me. The sessions conducted by the IIC have spanned wideranging topics like patent law and intellectual property rights, web and software development using specialised languages and entrepreneurship. I have also had an opportunity to interact with seasoned entrepreneurs as well as engineering students, thus giving me insights from experienced businessmen and young academics. Cutting edge and relevant topics like electric vehicles were covered in detail. I congratulate the entire team behind the IIC @ VES and hope they continue bringing us such truly enriching sessions.

# M. Image



**VESIT IIC team members** 



**MHRD-IIC: - 4.5 Star Rating Certificate** 



**ARIIA Ranking-2020 Certificate** 

## N. Contact

- Dr. M. Vijayalakshmi, President, Vice Principal, VESIT, m.vijayalakshmi@ves.ac.in
- Dr. Nadir Charniya, Vice President IIC VESIT, nadir.charniya@ves.ac.in
- Dr. Gresha S Bhatia, Convener IIC VESIT , gresha.bhatia@ves.ac.in

Address : Hashu Advani Memorial Complex, Collector's Colony, Chembur, Mumbai – 400 074.

India.

Tel: +91-22-61532510 / 27 Email: vesit@ves.ac.in