Savitribai Phule Pune University

विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY

Technology Enabling Center (TEC)

DST - SPPU

NEWSLETTER

Year 1 Volume 1

Prof. Dr. **Aditya Abhyankar,**
PI – DST-TEC-SPPU
Chief Editor

Prof. Dr. **Nitin Karmalkar,**
Vice Chancellor, SPPU
Chief Patron

DST – Assigned Mentor

Prof. Dr. **K Balasubramanian,**
Professor, Mechanical Engineering
IIT Madras (IITM)

Dr. Krishna Kanth Pulicherla, DST- India

Dr. Mrs. Anita Aggarwal, DST- India

JUNE 2019 – DEC 2019

By:
DSTs
Technology Enabling Center (TEC)
SAVITRIBAI PHULE PUNE UNIVERSITY

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DST – Mentors – Authorities - Advisors

Introduction: TECHWINGS FROM DST-TEC

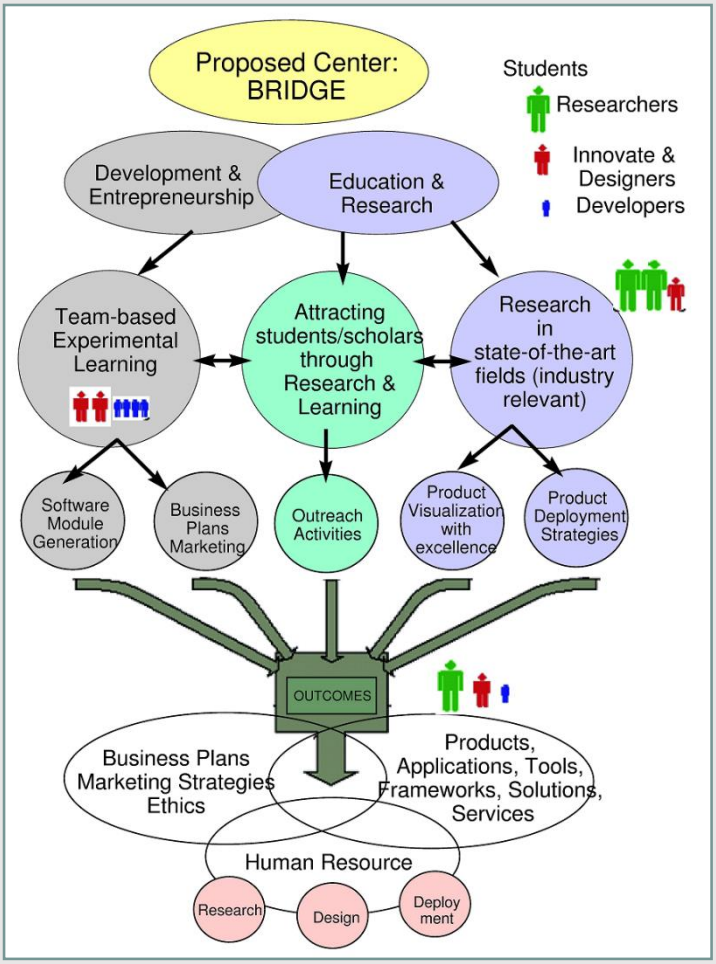
It gives us immense pleasure to introduce you to the DST-Technology Enabling Center (TEC) established at SP Pune University, which is revolutionary in its approach to help bright individuals in realizing their dream to become technopreneurs.

First Industry Summit at DST-TEC-SPPU – 15th July 2019

DST-TEC at SPPU aims to promote inclusion, access, and equal opportunities for Researchers, Scholars, Students who have brilliant project ideas for solving real world problems and they are looking for industry collaborations.

DST-TEC at SPPU provides an array of services, including assessment, training and assistive technology devices to help enable individuals to participate fully in their community and the workforce. This center aims to act as a bridge between people and the technology that can improve their quality of life.

- Dr. Aditya Abhyankar, Chief Editor



Broader Impacts of the TEC are:

- Advancing the technology base for the analysis purpose, thus impacting numerous fields of science and technology, social science, environment, education, agriculture etc
- Leveraging research to undergraduate/graduate education through planned experiential learning activities in currently offered courses in engineering and technology and blend them with current market trends thus making the innovation base relevant to state-of-the-art.
- Towards promoting entrepreneurial potential of bright students by helping convert POCs into go to market propositions.
- Developing patented technologies and commercializing them through channel industry partners.

Activities carried under DST-TEC at SPPU during July 2019 – December 2019:

Following table presents a summary of the activities carried out under DST-TEC at SPPU during July 2019 – December 2019:

Date	Activity	Outcomes
15th July 2019	**Industry Summit**	80+ Industries participated, sensitization of TEC activities was done, 23 Industries gave their letters of intention towards working with DST-TEC at SPPU
14th September 2019	**PAG – 1 meeting at SPPU** **(TEC – Big picture presented by Dr. Krishna Kanth Pulicherla)**	The very first meeting of Program Advisory Group (PAG) formed as per DST norms for the TEC was conducted. Important directives and guidelines received for creating success stories out of TEC
6th October 2019	**Mentoring session with mix of Industry and Academia for potential entrepreneurs**	300+ participants, generic as well as one-on-one mentoring sessions, 11 groups successfully submitted proposals to TEC
17th October 2019	**Pre-Incubation 1.0**	30+ potential start ups screened and 3 awarded with certificates, 6 selected
02nd November 2019	**Sensitization workshop**	Workshop for making young innovators familiar with business eco-system, 100+ young enthusiasts participated
29th November 2019	**Mentoring session**	One-on-one mentoring sessions for the selected 6 start-up ideas
2nd and 3rd December 2019	**Two-day International Conference on Green and Sustainable Technologies (also addendum of water Olympiad)**	150+ participants presented papers/posters, 4 ideas were awarded with cash prizes and 2 ideas were offered no-charge mentorship for 6 months under TEC.
19th December 2019	**One day bootcamp on six technological verticals**	8 teams selected through pre-incubation for each vertical, top team went through

PAG 1:

The agenda for the said meeting was as follows:

1st Meeting of Program Advisory Group (PAG)
Technology Enabling Centre – SP Pune University (TEC-SPPU)
(Supported by DST, GoI)
Venue: Conference Hall, VC Office, First Floor, Savitribai Phule Pune University, Pune
Date: 14th September, 2019 Time: 3:00 PM to 5.00 PM

PROGRAMME	
Welcoming the members and Opening remarks	**Prof. Dr. Nitin Karmalkar, Vice Chancellor, SPPU**
Introduction by PAG members	
Concept of DST-Technology Enabling Centre	**Dr. K. K. Pulicherla, DST, New Delhi** **Dr Anita Aggarwal, DST, New Delhi**
Presentation of SPPU-TEC action Plan	**Prof. Dr. Aditya Abhyankar, PI, SPPU-TEC**
DST Remarks	**Dr. K. K. Pulicherla, DST, New Delhi** **Dr Anita Aggarwal, DST, New Delhi**

Expert comments by PAG members	
TEC-EAG member/Expert	Prof. Krishnan Balasubramaniam, IIT M Chair Professor in Mechanical Engineering Professor-in-Charge, Gopalakrishnan-Deshpande Centre for Innovation and Entrepreneurship Head of Centre for Nondestructive Evaluation (CNDE) Indian Institute of Technology, Madras
TEC Members/Representatives	□ Dr. R.K. Diwan Additional Director, Directorate of Innovation & Technology Transfer (DITT), TEC-coordinator, Amity University Uttar Pradesh □ Dr. K. Baskar The Director, Centre for Technology Development and Transfer, TEC-coordinator, Anna University
TEC Industry Members	□ Dr. Anand Deshpande Founder, Chairman, MD - PSL □ Dr. Pramod Chaudhari Founder and Executive Chairman, PRAJ
Industry Expert (Invitee)	Dr. Pramod Kumbhar, Dr. Rishi Jain, PRAJ Industries, Pune
Industry Association (Invitee)	Dr. Nagesh Kini, Thermax Limited, Pune
Tech Transfer Expert (Invitee)	Dr. Avinash Joshi , CEO, SPPU-RPF, SPPU
Tech Transfer Expert (Invitee)	Dr. Apoorva Palkar, Director, IIL, SPPU
Expert from Academia (Invitee)	Dr. Rajesh Jalnekar, Director, VIT, Pune
Co-ordinator TEC-SPPU	Prof. Dr. Suresh Gosavi, Department of Physics, SPPU
Co-ordinator TEC-SPPU	Prof. Dr. Avinash Kumbhar, Department of Chemistry, SPPU
Discussion and concluding remarks	
Visit to CIF	
Hi-Tea at Guest House	

Following Attendance sheet depicts the members present along with the invited members:

Savitribai Phule Pune University

DST-TEC 1st PAG Meeting- Attendance

Date: 14 September, 2019

Sr. No.	Name	Organisation	Signature
1	Prof. Dr. Nitin Karmalkar	Savitribai Phule Pune University	
2	Prof. Aditya Abhyankar	Savitribai Phule Pune University	
3	Dr. K. K. Pulicherla	DST, New Delhi	
4	Dr. Anita Aggarwal	DST, New Delhi	Absent
5	Prof. Krishnan Balasubramaniam	IIT, Madras	
6	Dr. R. K. Diwan	Amity University, UP	
7	Dr. K. Baskar	Anna University, Chennai	Absent
8	Dr. Anand Deshpande	Persistent Systems Ltd.	
9	Dr. Hemant Darbari	C-DAC	
10	Dr. Pramod Chaudhari	Praj Industries Ltd.	Absent
11	Dr. Pramod Kumbhar	Praj Industries Ltd.	Absent
12	Dr. Rishi Jain	Praj Industries Ltd.	
13	Dr. Nagesh Kini	Thermax Ltd.	
14	Dr. Avinash Joshi	Savitribai Phule Pune University	
15	Dr. Apoorva Palkar	Savitribai Phule Pune University	Absent
16	Dr. Rajesh Jalnekar	VIT, Pune	
17	Prof. Suresh Gosavi	Savitribai Phule Pune University	Absent
18	Prof. Avinash Kumbhar	Savitribai Phule Pune University	Absent

Executive Summary:

DST (Department of Science and Technology) has a unique scheme of TEC (Technology Enabling Centers), under which 1 TEC is granted for every state. For Maharashtra state, SPPU submitted the proposal and has been awarded TEC by DST. These centers are to act as Technology Enablers and Facilitators so that stakeholders from across the state can get benefited. These TECs are expected to provide the platform to budding entrepreneurs and act as an incubator and provide extended support for Research and Developmental activities. The said PAG (Program

Advisory Group) is the committee formed as per DST guidelines and it acts as the steering committee for the said program. TEC will operate only as per recommendations given by PAG. Thus, PAG meeting is extremely important and we look forward to getting guidance from the eminent people from academia as well as industry.

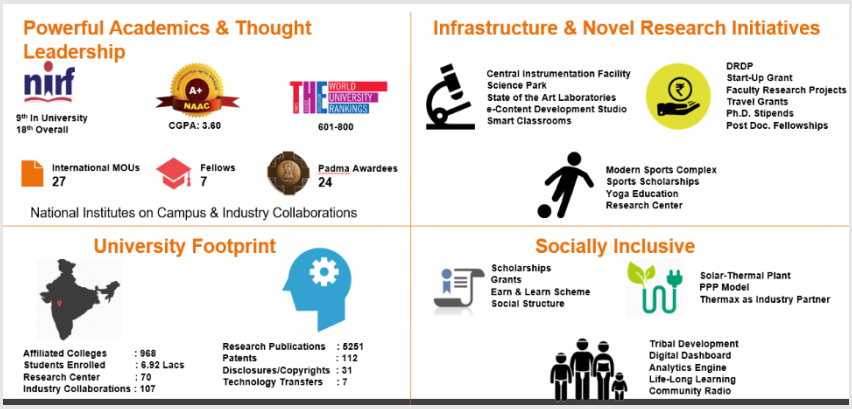
Hon'ble VC of SPPU has approved following PAG for SPPU's DST-TEC:

Designation	Person
Chairman	Vice Chancellor, SPPU (Dr. Nitin R Karmalkar)
Coordinator and Secretary of TEC	Dr. Aditya Abhyankar
Co-coordinator of TEC	Dr. Suresh Gosavi
2 TEC members nominated by DST	1. TEC Coordinator, Amity University 2. TEC Coordinator, Anna University
2 Industry / Industry Association	1. Persistent Systems (Dr. Anand Deshpande) 2. PRAJ Industries (Dr. Pramod Chaudhari)
Partner Institution	CDAC Pune (Dr. Hemant Darbari)
Management personnel (IP/Tech Transfer/Tech Commercialization)	Pro-Vice Chancellor (IPR, Chairman)
TEC-EAG member (Nominated by DST)	Prof. Krishnan Balasubramaniam, IIT M (Email: balas@iitm.ac.in)
Representative of DST	Dr. Anita Aggarwal (Email: anita.a@nic.in) / Dr. Krishna Kanth Pulicherla (Email: kkpulicherla.dst@gov.in)

Initially Hon'ble Vice Chancellor (Dr. Nitin karmalkar) welcomed all the respected PAG members. Dr. Aditya Abhyankar, PI – SPPU-TEC made presentation on the strategic roadmap of SPPU.

The highlights of the same are as under:

1. SPPU has A+ NAAC grade with CGPA of 3.60
2. SPPU has been consistently amongst top 10 institutes as per NIRF rankings of last three years
3. SPPU has produced 24 Padma awardees
4. SPPU has excellent schemes like DRDP and stat-of-the-art facilities like CIF to promote and nurture research culture
5. SPPU policies are socially inclusive and academically rich



Dr. Krishna Kanth:

- Represented DST and presented the big picture of theme behind launching TEC program
- He demonstrated that although India is producing good research outputs, these are not being commercially valued and we lack IP creation.
- Dr Krishna Kanth also pointed out that industry is ready to invest into good research projects.
- He showed trust that with strong industry connects SPPU will be able to create unique TEC

Dr. Krishna Balasubramaniam, IIT Madras

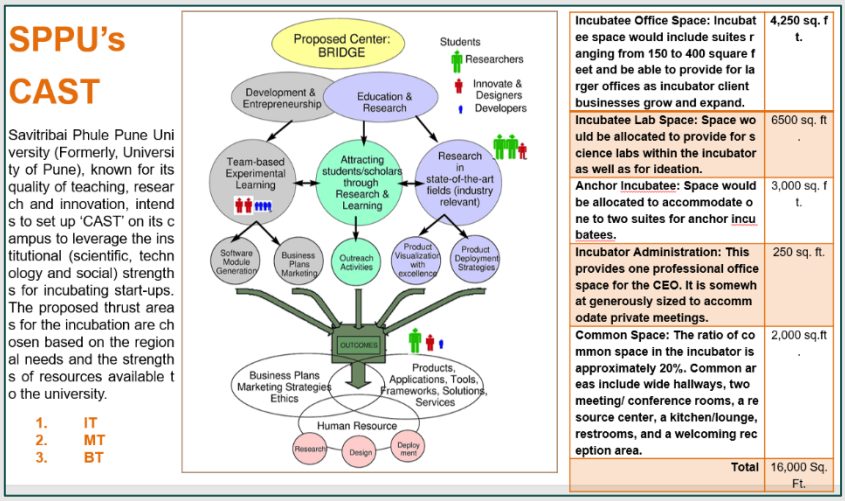
- Prof. Balasubramaniam is part of Centre for Nondestructive Evaluation (CNDE) at IIT Madras. He is also Chair Professor in Mechanical Engineering, Professor-in-Charge, Gopalakrishnan-Deshpande Centre for Innovation and Entrepreneurship, Head of Centre for Nondestructive Evaluation (CNDE) Indian Institute of Technology, Madras
- Prof. Balasubramaniam has exemplified a successful model to create platform for Lab to Market kind of research.
- He gave many interesting examples and promised to help the TEC at SPPU in every possible way

Dr. Anand Deshpande, Founder, PSL

- Dr Anand Deshpande has entrepreneurial brain and an academic heart.
- Apart from being a founder and MD of Persistent Systems Ltd, he also talked about schemes like 'De Aasaraa', where budding entrepreneurs are groomed and trained.
- He gave a very important suggestion to incentivize the incubates on graduation in lieu of selection. This helps in promoting the graduation of the selected budding entrepreneurs by achieving the goals in tangible time and manner.

Dr. Aditya Abhyankar, PI – SPPU-TEC

- Dr Aditya Abhyankar is the Principal Investigator (PI) of the project.
- He presented the TEC roadmap of SPPU as per directives received from DST.
- The important highlights are as follows:
  - TEC at SPPU will be called as CAST (Center for Automated Sustainable Technologies)
  - The operational details of the center will be as under:
  - Multiple services offered at CAST will be as under:
  - Dr. Abhyankar talked about IPR policy at SPPU. AT SPPU 4th version of IPR policy is being executed currently. IPR policy at SPPU is matured and there is precedence of Technology Transfers.
  - He presented the budgetary details of TEC
  - The man-power calculation were presented as per standard DST norms
  - Then Dr. Abhyankar presented the targets for the first year as per the indicators provided by DST
  - The committee okayed this after discussion feasibility of the projected numbers



- Dr. Abhyankar have updates on the common charted activities for all the TEC and progress of SPPU in particular, as in table below:
- Dr. Abhyankar thanked the members for all the suggestions and inputs

Dr. Hemant Darbari, CDAC

- Dr. Darbari is the Director General, CDAC, he discussed many case studies where CDAC has launched interesting products in the market and promised that he will extend support with his eco-system
- Dr. Darbari also suggested that the joint Center of Excellence between CDAC and SPPU be used.

Dr. Nagesh Kini:

- Represented Thermax and he gave good overview of business verticals of Thermax.
- Upon request from Hon VC, he also talked and gave details of a Hybrid Plant created at Shive by Thermax and then handed over to SPPU which is now run in PPP mode.

Dr. Rishi Jain:

- Represented PRAJ Industries.
- He suggested focus on R&D for the depth in the projects. Dr. Krishna made it clear that TECs will not support core R&D activities. Dr. Rishi clarified stating that he meant the projects with good R&D to back it up should be preferred.

Dr. Rajesh Jalnekar:

- Represented VIIT and also all the other Autonomous institutes.
- He said since autonomous institutes have academic flexibility, any pre-incubation activity can be hosted by such institutes to hunt the talent across the region(s).

Dr. R K Diwan

- Represented Amity University as TEC-Coordinator.
- He shared his vision of running TEC at Amity University and shared extension of cooperation and support.

Concluding Notes:

- Healthy discussion took place on every point
- The experts gave crucial pointers for successful implementation of TEC scheme
- The PI thanked everyone and with permission of chair, the meeting was concluded.

Let's create interesting, socially inclusive and economically viable business propositions!

Contact:
DST – TEC (Technology Enabling Center) at
Savitribai Phule Pune University
Department of Technology
Ganeshkhind, Shivaji Nagar, Pune – 411007, MH, India
https://goo.gl/maps/CMPga7dJLeRnqtrD7
http://www.unipune.ac.in/dot/tech_webfiles/DST-TEC.htm
Phone: +91-020-25601270

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