

**Technology Based Entrepreneurship Development Programme (TEDP) on
SUSTAINABLE BUILDING MATERIALS**

**Sponsored By
Entrepreneurship Development Institute of India, Gujarat
August 21 to September 29, 2017**



**SPIHER – MSME BUSINESS INCUBATOR &
DEPARTMENT OF CIVIL ENGINEERING
ST. PETER'S INSTITUTE OF HIGHER EDUCATION AND RESEARCH
ST. PETER'S UNIVERSITY
ISO 9001 certified and NAAC accredited
AVADI, CHENNAI 600054.
www.stpetersuniversity.org**

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ABOUT THE UNIVERSITY

St. Peter's Institute of Higher Education and Research is a deemed University located at Avadi in the Chennai metropolitan city. It was formally functioning as a self-financing engineering college since 1993 in the name of St. Peter's Engineering College. After attaining deemed University status in 2008, the institution has been focusing on academic excellence, higher education and research. The University offers undergraduate and postgraduate programs in engineering, technology, management studies, architecture, science and humanities besides M.Phil. and Ph.D. programs. For encouraging innovation and entrepreneurship development, a Technology Business Incubator sponsored by the Department of Science and Technology, Ministry of Science and Technology, and SPIHER – MSME Business Incubator, sponsored by the Ministry of Micro, Small and Medium Enterprises, Government of India, are functioning within the campus. The University is certified for ISO 9001 quality system and accredited by NAAC.

The campus is located in a serene environment. There are many industries in and around our University including one of the largest industrial estates in Ambattur. The campus is easily commutable by bus and train. Annanur railway station, on the Chennai Central – Tiruvallur broad gauge section is just 1.5 km from the University. The domestic and international airports are located at about 30 km from the campus. Transport is available from different parts of the city for the benefit of the students. Separate hostel facilities are available for boys and girls. Limited Guest House accommodation is also available.

About SPIHER-MSME Business Incubator

SPIHER – MSME Business Incubator was established at St. Peter's University under the scheme of the Ministry of Micro, Small and Medium Enterprises of the Government of India for entrepreneurial and managerial development of SMEs through incubators. Since its inception, ten technologies have been developed with a total grant of Rs.51.552 lakhs. A mentor is assigned for each incubatee to develop the technologies for commercialization.

ABOUT TEDP

Objective of the Programme

The objective of the programme is to promote technology based entrepreneurs in a particular technology area so that the infrastructure development and manufacturing sectors can improve with more knowledgeable entrepreneurs to meet the growing demands for various products using appropriate technologies. The technology area chosen for our programme is *Sustainable Building Materials*.

The building materials sector in India is a key constituent of the country's construction industry. Driven by recent growth in the infrastructure and the construction industry, the building material sector has recorded considerable growth over the last few years. The objective of the programme is to promote technology enabled entrepreneurship for sustainable building materials in the construction sector in the country. There is growing demand for construction materials. Cement which is widely used for construction is known to produce large amount of CO₂. The CO₂ emission related with cement clinker production estimated as the amount of CO₂ released per ton of binder, including blending with ashes and slags, is approximately 0.815 tonnes. Similarly brick production involves large amount of land (which otherwise can be used for agriculture) and use of natural resource.

Hence there is need to use sustainable building materials which can reduce CO₂ emissions and global warming, and maintain the environment for future generations. The materials and technologies chosen for construction must, in addition to functional efficiency, fulfill some or more of the following criterion, for the cause of sustainability and a better quality environment:

- non endanger bio-reserves and be non-polluting;
- be self-sustaining and promote self-reliance;
- recycle polluting waste into usable materials;
- utilise locally available materials;
- utilise local skills, manpower and management systems;
- benefit local economy by being income generating;
- utilise renewable energy sources;
- be accessible to the people and
- be low in monetary cost

Several building materials have been developed during the past few decades which are cost-effective and sustainable. Many R&D institutions have developed innovative technologies for building materials. St. Peter's University has conducted R&D on use of waste materials like fly ash and GGBS, and Geopolymer concrete (which can eliminate cement) for construction. It is proposed to train entrepreneurs on some of the useful technologies for sustainable building materials.

Brief Details of the Program:

1. Duration of Program: 6 weeks (from 21st August to 29th September 2017)
2. Number of participants : 25
3. Contents of the Program :
 - Technical inputs will be provided for 4 weeks; entrepreneurial inputs will be given for 2 weeks.
 - Technical inputs will be in the form of lectures, practical demonstration and hands on sessions. The programme will cover various sustainable building materials including fly ash bricks, ferrocement and fibre reinforced concrete, precast concrete, hollow concrete blocks, light

weight concrete, geopolymer concrete, effective utilization of industrial wastes, recycled concrete, testing and quality control.

- Entrepreneurship input will cover business opportunities, marketing, raising finance, soft skills, managing human resource, start up schemes, preparing project report and IPR.
- Industrial visits and meeting with entrepreneurs.

Eligibility

Age: 18-40 years

Qualification: Degree in any branch of Science/ Engineering/Technology or Diploma of at least 2/3 years in any branch from recognized institution.

Registration:

- There is no registration fee for the participants..
- Participants have to make their own arrangements for attending the programme.
- Certificate will be given to all participants.
- Last date for submitting registration form is 10-7-2017.

Advisory Committee

*Dr.S.Ravichandran
Vice Chancellor
St. Peter's University*

*Dr.L.Mahesh Kumar
Director (Academic) and CEO, TBI
St. Peter's University*

*Dr.D.S.Ramachandra Murthy
Director (R&D) and
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*Dr. V.B.M.Sayana
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*Dr.P.Asha
Professor (Civil Engineering)
St. Peter's University*

*Dr.P.Partheeban
Prof. & Dean (Academic)
SPCET*

Program Co-ordinators

*Dr.D.S.Ramachandra Murthy
Director (R&D) and Head, SPIHER – MSME Business Incubator*

*Dr.P.Asha
Professor (Civil Engineering)*

Registration form should be sent by post to :

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