

COMPOSITES TECHNOLOGY PARK - TBI BANGALORE, KARNATAKA



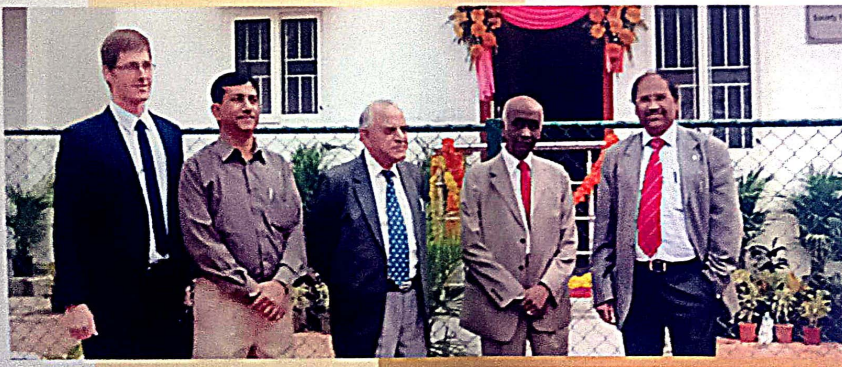
ORGANIZATION BRIEF

Society for Development of Composites (SDC), the Host Institution was promoted by RV-TIFAC CDC and Karnataka Housing Board, supported by NSTEDB, DST and BMTPC, Govt. of India and Govt. of Karnataka. SDC has successfully set up a Technology Business Incubation (TBI) on a 6.5 acre campus of the Composites Technology Park on the outskirts of Bangalore. The TBI is well-equipped with infrastructure facilities, in terms of Computer-Aided-Design, fabrication, testing, office space, plant and machinery for training and demonstration etc., and can accommodate up to 8 incubatees at a time.

The TBI is managed by the Governing Body of the Society for Development of Composites and the Member-Secretary of the Governing Body who is also the Executive Director of the Society is responsible for day-to-day operations of the TBI.

The Executive Director is assisted by a team of engineers to provide training and demonstration services for incubatees / entrepreneurs. The expenses in maintaining and operating the TBI are also borne by the Society.

In order to carry on with its activities, the TBI has set up a wide range of facilities, in the core areas of Glass Fiber, Bamboo, Coir, Jute and other natural fibers, Computer-Aided-Design and Analysis & Testing, Prototype development and fabrication facilities for the benefit of entrepreneurs and incubatees.



YEAR OF STARTING: 6th February, 2002 / April, 2004

HOST INSTITUTION: Society for Development of Composites

LEGAL STATUS: Registered Society

THRUST AREA: Natural fiber, Glass fiber sandwich composites, LGS foam concrete

INCUBATION AREA: 50,000 sq. ft.

INCUBATION CAPACITY (No. of Ventures): 8 per Year

AVERAGE PERIOD OF INCUBATION: 6 Months to 3 Years

EMPLOYMENT GENERATED (Last 5 Years): ~1500

TURNOVER OF COMPANY (Last 5 Years): ~ INR 150 Crores

FACILITIES AT THE TBI

- Glass fiber composite development centre
- Coir fiber printing, processing and felt development centre
- Coir, bamboo pre-preg unit
- Compression moulding processing unit
- CAD and FEM & FEA Centre
- Testing and quality control centre
- Honeycomb processing unit
- SMC processing unit
- Primary and secondary bamboo processing unit
- R&D and Training centre

MAJOR ACHIEVEMENTS

- Awarded a Gold Medal by Lockheed Martin Inc. USA under its India Innovation Growth Program for the year 2007 for development of the novel technology of "Glass Fiber -Natural Fiber Hybrid Bio-Composites Materials and Products"
- Awarded a Patent (No. 199067) by the Govt. of India Patent Office, Chennai for development of "Process for Hybridization Techniques of sandwich Composites using Natural Fibers with Glass Fibers"
- Composite products developed by TBI have been approved by State and Central PWDs, Housing Boards, MES etc.
- Eco-friendly composite honeycomb products developed and commercialized and has received JEC Award for 2011
- Successfully developed Innovative Fast Track Building Construction by Light Gauge Steel - Foam Concrete Technology and demonstrated by constructing a ground plus one building for Karnataka State Police Housing Corporation Ltd. at Bangalore

SNAPSHOT OF TECHNOLOGIES DEVELOPED / UNDER DEVELOPMENT:

Materials

- Glass fiber polymer composites
- Natural fiber bio-composites
- Natural fiber-glass fiber hybrid bio-composite materials (based on bamboo and coir)
- Honeycomb sandwich core material products

Process Technology

- Filament Winding
- Pultrusion
- Compression Moulding

- Resin Transfer Moulding (RTM)
- High temperature Polymer manufacturing
- Polyurethane, Polystyrene and Honeycomb manufacture
- SMC (sheet moulded compound) manufacture
- Coir-fiber felt manufacture

Products Developed

- GRP-EPS Sandwich Composite Door Shutters developed (the technology is patented and introduced in the PWDs of several State governments (PWD and MES all over India); the technology has been commercialized through technology transfer and business incubation to over 60 industries
- GRP Door Frames is a substitute for wooden door frame with improved performance and lower cost
- Bamboo composite roofing panels
- Bamboo composite sandwich panels
- Coir felts with light, medium and high density for filtering and soil erosion applications
- Coir composite products and sandwich panels
- Craft paper high density honeycomb (the technology has received JEC Award)
- Honeycomb composite furniture
- Light gauge steel frame structure
- Light gauge steel foam concrete panels and building
- Development of low cost sheet moulding components machine
- Development of glass fiber SMC and composite products

Product / Process - Under Development

- Ultra-light foam concrete blocks and panels
- High temperature resist vermiculate composite tiles
- High performance coir composite products for transport application
- Fast track building construction technology using LGS Foam Concrete and SIP Technology
- Eco-friendly packaging for heavy industry application
- Hybrid coir fiber felt for soil erosion and vertical gardening