

DST- AMRITA TEC@ AMRITA

NEWSLETTER

July - December 2021

NEWS

GENWORKS MOU SIGNING

TEC@Amrita and Genworks Pvt Ltd has signed an MoU on 30th April, 2021. Dr.Krishnashree Achuthan from Amrita University and Mr. R. R. Balaji from Genworks signed on the MoU. Both Genworks and Amrita mutually agreed to build an ecosystem of IoT enabled health care system. Employees from Genworks and representatives from Amrita University attended the virtually conducted MoU signing event.



Meeting on 14th May, 2021

Meeting of DST-Amrita TEC was conducted on 14th May, 2021. Dr. Anita Agarwal and Dr. Krishna Kantrepresented DST, Govt of India in this review meeting. Dr. Krishnashree Achathan and Mr.Joydeep Nag were presented TEC's immense progress for the past 1 year.

Vaccination campaign in association with FICCI in June

DST-Amrita TEC in association with FICGI conducted a vaccination campaign for all employees of Amrita in June, 2021.

AMRITA TEC SHOWCASES PRODUCTS AT EXHIBITIONS AND VENUES

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AMRITA TEC SUPPORTS PLYWOOD MSME CLUSTER

Plywood is made of three or more thin layers of wood bonded together with an adhesive. Each layer of wood, or ply, is usually oriented with its grain running at right angles to the adjacent layer in order to reduce the shrinkage and improve the strength of the finished piece. Most plywood is pressed into large, flat sheets used in building construction. Other plywood pieces may be formed into simple or compound curves for use in furniture, boats, and aircraft. The India plywood market reached a value of INR 195.8 Billion in FY 2021-22. Looking forward, the industry is expected to reach INR 297.2 Billion by 2027-28, exhibiting a CAGR of 7.4% during 2022-23 to 2027-28.

Plywood industry is one of the most promising and developing industry in Kerala. The industry makes an enormous contribution to the economy of the state.

According to Sawmill owner and Plywood Manufacturers Association (SOPMA), Kerala has 600plywood manufacturers and around 450 of them are based out in Perumbavoor and nearby villages. Most of the units started out as Sawmill and moved into the Plywood 20years ago.

Currently the industry is dominated by unorganised segment; however there is a shift for Unorganised segment to Semi Organised and Organised segment. Hence there is a need for affordable technology for these companies to upgrade to the need of the market to produce a higher quality with lesser production cost. Amrita TEC has promised to help with standardization, automation, control and monitoring of the hot pressing stage plays a critical role in the bringing out a quality product.





AMRITA TEC SUPPORTS AGRI IMPLEMENTS CONSORTIUM









Agri tools manufactured at Shornur Agri Impliments Consortium requiring standardization and marketing support

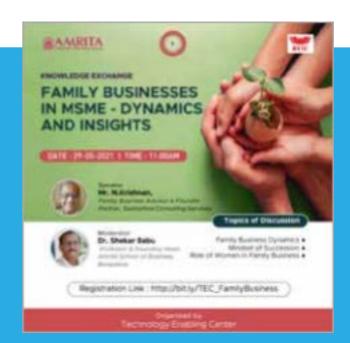
KNOWLEDGE EXCHANGE WEBINAR SERIES

Family Business in MSMEs: Dynamics and Insights

N. Krishnan, Family Business Advisor and Founding Partner, Sadasiva Consultancy

Intellectual Property Rights: Overview and Management

Dr. Dipanjan Nag, Prof of Practice Business and Science, Rutgers University, Visiting Professor, Shizuoka University, Chief Partnership Officer, Ventech Solutions





"Innovation"

Mr. S. Devarajan, Director – TATA Sky Ltd,
Chairman – ADC Communications Ltd,
Former MD & CEO – Tata Elxsi and
Mr. Naresh Kumar, CTO, Tektronix, EMEA-

India on 28th August, 2021

"Digital Manufacturing" by on 26th September, 2021

"Lean Manufacturing" on 23rd October, 2021

Amrita TEC signed a Non-Disclosure Agreement with BPL for exchange of knowledge, information and Co-Creating and development of products and processes related to Medical Devices. Solar Powered E Rickshaw: The solar-powered electric rickshaw is a scalable model and very suitable for Indian roads for last-mile connectivity. AC charging stations: A standard electric vehicle charging station for the developed auto with multi charging option i.e AC & DC charging option from a level 2 charger





Agreement Signing with BPL and Amrita TEC



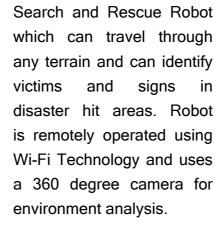
EMG based prototype prosthetic hand is low cost for rural population. The product collects data from EMG signals in muscles and coordinates the movement of fingers to perform actions such as holding an object.



Walking robot to detect harmful gases for mining industry: A multipurpose walking robot which can be controlled remotely and can detect hazardous gases in mines and also to explore unexplored areas in deep down mines. It can also be used for carrying some payload from one place to another.



Sewage Management
System through Gardens
utilising Green Gifts Sewage
bio-filers: Garden based
waste water management
system recycles black water
for a household. The system
utilises bio-filters based on
algae and vertical garden
structure which acts as a
filtration bed. The recycled
black water can be used for
gardening, toilet flushes etc







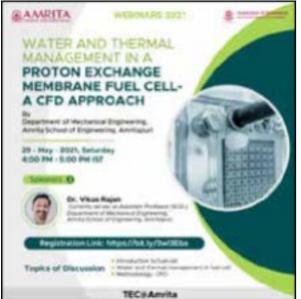
Amrita Pulse is a "Remote ECG Monitoring Device" with these features: Bluetooth connectivity from wearable device to the patient smartphone Patient smartphone to cloud/HIS connectivity over any data network Cloud/HIS to Doctor's Mobile/Tablet through internet or VPN Web and Mobile Apps to monitor live and stored ECG signals Automatic activity detection and tagging using in-built accelerometer Motion artifact removal based on the activity









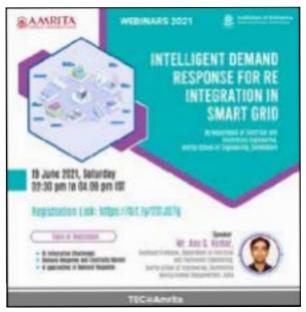


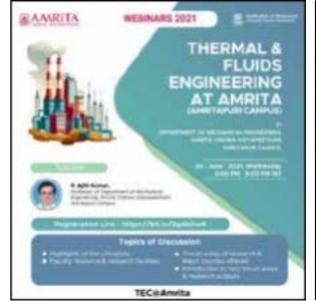














GRANTED PATENTS

Indian Patent 369608	Adaptive Energy Management System and Method for Real Time Landslide Detection	2021
Indian Patent 369426	High Performance LiMn2O4 Cathode For Li-IQN Battery Applications and Preparation Method Thereof	2021
Indian Patent 368254	Artificial Humanoid Robotic Hand and Process of Manufacturing Thereof	2021
US Patent 11,009,480	Lab on Chip Device for Multi Analyte Detection and Method of Fabrication Thereof	2021
Indian Patent 366415	Core-Shell Nanomedicine Loaded With Multiple Drug Molecules	2021
Indian Patent 365839	The Art, Method And Manner Of Nanosurface Modification Of Titanium Implants For Orthopedic Or Dental Applications granted April 30, 2021	2021
Indian Patent 363458	Radio-Wave Responsive Doped Nanoparticles For Image Guided Therapeutics granted on March 29, 2021	2021
US Patent 10,893,931	Strong, Flexible, and Thrombus-free Woven Nanotextile Based Vascular Grafts and method of Production There Of	2021







