

dhaRti Foundation, IIT Dharwad Signs Agreement with Enerzi Microwave Systems Private Limited, Belagavi to Advance Clean Hydrogen and Deep-Tech R&D

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dhaRti Foundation, the innovation and entrepreneurship ecosystem anchored at Indian Institute of Technology Dharwad (IIT Dharwad), has signed a Memorandum of Understanding (MoU) with Enerzi Microwave Systems Private Limited, a Belagavi-based deep-tech manufacturing and clean-energy company, to collaborate on advanced research, development, and deployment of clean energy and materials technologies.

Under the MoU, Enerzi Microwave Systems Private Limited will be housed at dhaRti Foundation, enabling close and continuous engagement with IIT Dharwad's faculty, researchers, and students. The collaboration will leverage IIT Dharwad's advanced research infrastructure, including the Sophisticated Central Instrumentation Facility (SCIF), to support joint R&D, experimental validation, modelling, and scale-up of emerging deep-tech solutions.

Enerzi Microwave Systems Private Limited specializes in advanced hardware and materials engineering, with core strengths in microwave-plasma systems, industrial microwave heating solutions, and process engineering. The company designs and manufactures industrial

microwave heating systems deployed across sectors such as rubber processing, polymer curing, foundry drying, and materials engineering, supported by strong in-house capabilities in hardware design and materials science.

A key focus of the collaboration will be Enerzi's flagship methane-to-hydrogen platform, powered by microwave plasma reactors. The technology enables the conversion of methane into clean hydrogen, while simultaneously producing solid carbon nanopowder as a valuable co-product. This dual-output approach improves the economics of hydrogen production and opens up downstream applications in energy storage, composites, and advanced materials.

The partnership will facilitate engagement of faculty members, researchers, students, and startups in applied research programmes, aligned with national priorities in clean energy, decarbonisation, and sustainable manufacturing.

In late November 2025, Enerzi Microwave Systems Private Limited raised ₹16.5 crore (~USD 2 million) in a seed funding round led by Capital-A, with participation from 8x Ventures and angel investors. The company plans to deploy the capital to expand manufacturing capacity in Belagavi, strengthen its engineering and plasma science teams, and accelerate the commercial deployment of its methane-to-hydrogen and nanocarbon platform across domestic and international markets.

The MoU signing ceremony was held at IIT Dharwad and was attended by senior leadership and representatives from both organisations, including **Prof. Venkappayya R. Desai, Director, IIT Dharwad; Prof. Koteswararao Kondepu, Dean (Research and Development), IIT Dharwad; Shri Rakshit Kalyani, Chief Operating Officer, dhaRti Foundation, PProf Sudhanshu Shukla, PProf Amar Gaonkar; Dr. Prakash Mugali, Founder & Chief Scientific Officer; Shri Kiran Hittalmani, Co-founder & Chief Executive Officer; and Dr. Brijesh K., Scientist at Enerzi Microwave Systems Private Limited.** The ceremony was also attended by the Prof. Rajeswara Rao, Chemistry, Prof. Nilkamal Mahanta, Chemistry, Prof. Mahesh Gudem, Chemistry, Prof. Anmol Kumar, Chemistry, Prof. Santosh, Physics, Prof. C. Ravi Kumar, Chemical Engineering, and other members of the dhaRti Foundation and dhaRti BioNEST Incubation Centre teams.

This collaboration reinforces dhaRti Foundation's role as a conduit for industry–academia partnerships, supporting deep-tech enterprises through access to advanced research infrastructure and enabling the translation of cutting-edge research into scalable, real-world solutions.