





### One Day Workshop

on

## Fundamentals of Vacuum Science and Technology

Date: 5<sup>th</sup> April / Time: 9:45 AM

Organized by

# The Department of Physics Faculty of Science & Technology The ICFAI University Tripura

in collaboration with Vacuum Techniques Pvt Ltd, KA - 560058, India



#### About The ICFAI University, Tripura

The ICFAI University, Tripura was established in 2004 through an Act of State Legislature (Tripura Act 8 of 2004). The University has been approved by the University Grants Commission, under Section 2(f) of the UGC Act, 1956. The University has been approved by the University Grants Commission, under Section 2(f) of the UGC Act, 1956. The ICFAI University, Tripura is a member of the Association of Commonwealth Universities (ACU), London, UK, Association of Indian Universities (AIU), New Delhi, India, The Institution of Engineers (India) and Association of Management Development Institutions in South Asia (AMDISA), Hyderabad. The University is accredited by the Bar Council of India (BCI), National Council of Teachers Education (NCTE), Distance Education Bureau (DEB) and NAAC.

The University offers Bachelor, Master, and Doctoral programs in management, finance, science and technology, information technology, education, law, and other areas and being widely recognized as an institution devoted to quality research and teaching. The University gives utmost importance to the Industry-University interface.

#### About the Department of Physics

The Department of Physics was established as a separate department under ICFAI Science School in August of 2018, it has never looked back. Department currently consists of highly qualified faculty members who have been actively involved in cutting-edge research in various emerging fields, and in developing state of art technologies. Presently we are offering Bachelors (B.Sc-Honors), Masters (M.Sc), and Doctorate (Ph.D.) courses. Students have been encouraged to join various esteemed institutions for their internship projects. The Department of Physics envisages itself becoming a Center of Excellence in the near future under the hood of ICFAI University Tripura.

#### About the Vacuum Techniques Pvt. Ltd.

M/s Vacuum Techniques Private Limited is a leading manufacturer of customized Vacuum Equipment in Country. Head-Quartered at Peenya, Bangalore and operating since 1989, the Company has made pioneering contributions towards indigenous manufacturing of vacuum pumps, vacuum and cryogenic instruments, industrial scale material processing and Heat treatment Equipment. Led by Promotor and Managing Director, Mr Y. Ranga Rao, the Company has continuously strived for quality, service and excellence. Some of the notable contributions of the Company include manufacturing of large vacuum production systems, Ultra High Vacuum Thin Film Deposition Systems, Cryostats, Wind Tunnels and Thermovac Systems (https://www.vtvacuumtech.com/).

#### About Vacuum Science & Technology

Vacuum itself is not so important but what you do with it that's important. Vacuum systems are used in all kinds of equipment, and not only in the sciences; there is also a very long history of using vacuum for industrial machines and processes. Vacuum has contributed to major advancements made in nuclear science, space, metallurgy, electrical/electronic technology, chemical engineering, transportation, robotics and many other fields. Within the sciences, vacuum is important if we want to understand materials at a very small scale, because to do that we need very clean and stable conditions. In industry, one of the major applications are in industrial machines. For instance, vacuum is used to lift, position and move objects. Simply speaking, without vacuum many industries would not exist. An example is the semiconductor industry. Once upon a time, the electronics industry ran on vacuum tubes: vacuum was an essential requirement for switching electrical currents. Although these switches have since been replaced by solid-state electronics, manufacturing the electronics and circuits still require vacuum conditions.

#### Organizing Committee

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There is NO registration fee for participation.