Prof. R. Thangavel

Name : Prof. R. Thangavel
Current Affiliation : Department of Physics, Indian Institute of Technology (ISM), Dhanbad, Jharkhand
Ph.D. : Crystal Growth Centre, Anna University, Chennai
Post-Doc : Academia Sinica, Taipei, Taiwan
: National Chiao Tung University, Hsinchu, Taiwan
Research Interests :

- Semiconductor Nanostructures and Quantum Dots
- Optoelectronic Devices: Solar Cells, LEDs, Photodetectors
- Crystal Growth and Thin Film Fabrication
- Spectroscopic Techniques: Raman, XPS, XRD, PL
- Band Structure Calculations: WIEN2k, TB-LMTO
- Photoelectrochemical Water Splitting and Hydrogen Production
- 2D Materials and Spin Qubits for Quantum Communication

Website : https://www[dot]iitism[dot]ac[dot]in/faculty-details?faculty=rthangavel
Brief CV :

Prof. R. Thangavel earned his Ph.D. from Anna University, specializing in wide bandgap II–VI semiconductors. He pursued postdoctoral research at Academia Sinica and National Chiao Tung University in Taiwan, focusing on photonics and nanomaterials. Since 2012, he has been a faculty member at IIT (ISM) Dhanbad, where he currently serves as Associate Professor in the Department of Physics. His research integrates experimental and computational approaches to develop advanced optoelectronic materials and devices. He has supervised over a dozen Ph.D. scholars and contributed significantly to solar energy conversion, quantum dot synthesis, and semiconductor device physics. His work is widely published and cited, and he actively collaborates on international projects in renewable energy and quantum technologies.

- A. Ghosh, R. Thangavel, "Solution-processed Cu_2XSnS_4 (X = Fe, Co, Ni) photoelectrochemical solar cells," *RSC Advances*, 2016
- R. Thangavel et al., "Bandgap tuning in $Zn_{1-x}Mg_xO$ thin films," *Applied Physics Letters*, 2013
- P. Sahoo, R. Thangavel, "UV-assisted water splitting using Cl-doped ZnO nanorods," *Solar Energy*, 2019
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