

Name of Faculty Mr. B.J. Hari Charan

Designation **Adjunct Professor**

Nature of Job/Appointment Adjunct Faculty

Date of Joining 04-03-2023

E-mail bjharicharan@gmail.com



| Education Qualifications | Name of the Degree | Class |
|--------------------------|--------------------|------------------------------|
| Ph. D | - | - |
| PG | M. E (IISc) | First Class |
| UG | B. E. (Mechanical) | First Class with distinction |

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| Work Experience | |
| Teaching | 2 Years |
| Research | -- |
| Industry | 34 Years |
| Others | -- |
| Area of Specialization | Microcontrollers |
| Professional Memberships | - |
| Responsibilities held at Institution Level | Member of CSD committee –Shruthi & Sudhee-2023 |
| Responsibilities held at Department Level | Adjunct Professor |
| Research Guidance | -- |
| Awards Received | |
| Courses Handled at Under Graduate / Post Graduate Level. | ---- |
| No. of Papers Published | --- |
| Projects Carried out | -- |
| Patents | -- |

A Graduate (1973) in Mechanical Engg. from Osmania University, Post graduate (1975) in Mechanical Eng/Instrumentation. from Indian Institute of Science Bangalore (IISc).

Served in BHEL for the last thirty four years in different capacities and retired as Additional General Manager in the Transmission & Protection systems Laboratory at the Corporate R&D Division of BHEL Hyderabad after a decade of service at the BHEL Heavy Electrical Equipment Plant Ramachandrapuram, Hyderabad. Worked for a short time at Indian institute of Science Bangalore as a project assistant.

Technology Transfer

Established a variety of test facilities for Electronic Instrumentation & Electrical measurements, infrared

thermal sensing methods etc at BHELs HPEP manufacturing plant at Ramachandrapuram. Established Instrumentation Lab for type testing and calibration of Instruments

Was involved with establishment of facilities for development of Micro processor based controls, Fibre optic techniques for recording and measurement of fast raising transients, control circuitry linked with the developmental tests on low Voltage, Medium Voltage Switching apparatus design, development and testing of micro processor based relays, ASIC based circuitry, and point on wave controllers for railways, SF6 gas density monitors, Grounding brush monitors, Smart energy meters, Power factor controllers for LT substations and a host of other instruments involving microprocessor/microcontroller technology. Involved in development and design of control scheme for 145kV GIS.

Microcontroller based Grounding brush monitors for Generators and Gas Turbines based on Hall probe Technology & successfully commercialized. Marketed about 15 Nos GBMs for various power plants all over India.

Developed India's first new generation IrDA based energy meters using bill net techniques and was instrumental in commercializing this product at BHEL EDn Bangalore. About 11000 units marketed.

Developed about 6 varieties of high end 3ph and single phase Energy meters for BHEL Edn Bangalore. A few of them commercialized at BHEL Edn Bangalore.

Has patent on energy metering application for rural electrification scheme filled along with engineers of BHEL EDn Bangalore.

Developed about 6 six varieties variety of high end 3Ph and single phase energy meters & tri vector meters for BHEL Edn Bangalore. A few of them being commercialized at BHEL EDn.

Designed and developed a low cost IGBT based AVR (Automatic voltage regulators up to 30mW) for bio mass generators employing high end mixed signal microcontrollers.

A Member of Institution of Engineers (India) and a faculty at BHELs' 'Advanced technical education Centre New Delhi,' IETE (Institute of Electronics and Telecom Engineers) Hyderabad and at Govt. Polytechnic

Institute Ramananthapur Hyderabad. Guided about 120 BTech students for their projects

Development of fiber optic based transient recording and measurement for measurement of fast rising transients in vacuum bottle switching using analog fibre optic communication.

Design and development of microprocessor based IDMT relays using microcontroller/

ASIC based IDMT relay

Point on wave switching of loco vacuum breakers for railways WAG 5000 (self tuning)

Power factor controller for LT sub station

Design and development of control scheme for 145 KV GIS, hydraulic breakers

Design and development of digital SF6 gas density monitor for GIS substations

Development of rotating 400A HRC fuses for turbo generators

Development of RC Blocks for rotating machines 100 MW

Development stroboscope for monitoring of rotating fuses

Development of single phase 1kW inverter

Development of microcontroller based solar charge controller

Engineering and commissioning of grid connected solar plant

Employment History

1. BHEL HPEP Plant, Jan 1976 - Nov 1987
2. BHEL Corporate R&D, Nov 1987 – June 2010
3. CEO BH Technologies 2012 till date