

DHANABAL MANI, MBA

Engineering Executive | Power Systems Protection | Digital Grid | Engineering Leadership

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EXECUTIVE PROFILE

Engineering executive with 25 years of progressive experience spanning hands-on testing and commissioning, high-voltage protection and control, IEC 61850 digital substations, engineering software, grid modernization, and global technical leadership. Leads cross-functional engineering organizations and complex utility programs across North America, Europe, Asia, and the Middle East. Combines field-based protection expertise with technical strategy, engineering governance, digital transformation, and customer advisory leadership.

EXECUTIVE IMPACT

- Commissioned India's first 400 kV IEC 61850 digital substation and multiple high-voltage sites, including protection validation, system integration, energization, and operational-readiness activities.
- Built and led cross-functional engineering teams across North America, Europe, and Asia supporting protection, automation, software, and utility modernization programs.
- Drove more than \$15M in revenue through strategic client engagement and delivery of high-impact modernization programs.
- Led digital-grid initiatives involving IEC 61850 automation, cloud-enabled testing, digital twins, virtualized testing, and AI/ML-assisted engineering workflows.
- Industry speaker and contributor across IEEE, CIGRE, PAC World, DPSP, GRIDCON, GCC Power, NETA, and other technical forums.

CORE LEADERSHIP & TECHNICAL EXPERTISE

Engineering Leadership | Technical Strategy | Engineering Governance | Global Team Leadership | Power System Protection & Control | High-Voltage Substations | IEC 61850 | Digital Substations | Grid Modernization | Relay Testing & Commissioning | FAT/SAT/Energization | Protection Automation | Engineering Software | Digital Twins | Cloud-Enabled Testing | AI/ML Engineering Applications | Root Cause Analysis | Utility Advisory | Cross-Functional Program Leadership

PROFESSIONAL EXPERIENCE

MEGGER GROUP | Dallas, Texas | 2012 - Present

Director, Relay Software Development | 2020 - Present

- Lead global engineering initiatives for software and automation solutions supporting protection systems used in critical electrical infrastructure and utility applications.
- Provide technical leadership for high-voltage protection, commissioning, reliability improvement, system integration, and protection philosophy across global utility projects.
- Direct engineering reviews and technical governance for protection-automation solutions, translating field lessons into standards, software enhancements, and scalable engineering practices.
- Advise internal and utility stakeholders on digital transformation roadmaps incorporating AI/ML analytics, virtualized testing, cloud-enabled engineering workflows, and digital twins.
- Lead cross-functional teams across engineering, operations, and business units and represent the organization in industry forums including IEEE, CIGRE, and PAC World.
- Act as a technical advisor to utility clients across North America, the Middle East, and Asia; contributed to \$15M+ in revenue through strategic engagement and modernization programs.

MEGGER INDIA LTD | Mumbai, India | 2009 - 2012

Application & Technical Manager

- Led relay-test application strategy, technical sales support, tendering, demonstrations, and customer engagement across India and Southeast Asia.
- Increased relay test-kit sales by approximately 1000% year over year while expanding adoption across major relay and automation OEMs.
- Provided technical leadership for protection-test platforms including SMRT, MPRT, Sverker, and Freja systems and supported field deployment of protection systems.

ABB LTD / ABB INDIA LTD | Sweden & India | 2005 - 2009

Global Protection Platform Validation Coordinator | Commissioning Engineer | Service Coordinator

- Coordinated validation of next-generation relay and control platforms across Sweden, Switzerland, Finland, and India, aligning hardware, software, firmware, and IED testing.
- Commissioned India's first 400 kV IEC 61850 digital substation and multiple 400/220 kV installations, integrating line, transformer, reactor, busbar, control, and station-automation systems.
- Led protection retrofit, testing, commissioning, FAT/SAT, troubleshooting, training, and energization activities for utility, generation, and industrial installations.
- Worked across generator, transformer, line, busbar, feeder, motor, reactor, CT/VT, switchgear, and IEC 61850 protection and control applications.

INEL POWER SYSTEM ENGINEERS PVT LTD | Chennai, India | 2001 - 2005

Testing & Commissioning Engineer

- Executed testing, commissioning, maintenance, and retrofit programs for substations and power plants, supporting protection and switchgear systems from major OEMs.
- Developed field experience across generator, transformer, line, motor, feeder, CT/VT, circuit-breaker, cable, and switchgear testing from low voltage through high-voltage systems.

EDUCATION & PROFESSIONAL DEVELOPMENT

- Ph.D. in Global Leadership, Columbia International University - In Progress, expected 2027.
- MBA, International Business Management, Texas A&M University-Corpus Christi - 2024.
- Postgraduate Diploma, Data Science and Business Analytics, The University of Texas at Austin - 2021.
- Postgraduate Diploma, Energy Management & Energy Audit, Annamalai University - 2011.
- Bachelor of Engineering, Electrical and Electronics Engineering, Kongu Engineering College - 2001.
- Diploma, Electrical & Electronic Engineering, Sakthi Institute of Technology - 1998.

PROFESSIONAL AFFILIATIONS & INDUSTRY CONTRIBUTION

IEEE Senior Member | CIGRE Member | Stevie Awards Judge

Selected topics presented or published include high-fidelity digital twins for protection training, inverter-based resource penetration, adaptive protection-system test generation, IEC 61850 commissioning and Test Mode/Behavior, AI-assisted validation, cloud-based end-to-end line protection testing, LPIT field testing, transformer protection, busbar misoperation analysis, generator differential protection, and power-swing/out-of-step testing.