

## Profile of an Engineering Teacher

### ***Prof. (Dr.) Ajitkumar G. Patil, M.S., Ph.D.(Tech)***



Dr. Ajitkumar Gorakhanath Patil is the **most distinguished scientist in the field of Biomedical Engineering** in India who has made significant contribution in the field through Research, Development, Education and Training for the last Four Decades. His relentless contribution in this field made him a well known figure around the world. This has benefited hundreds of industries, hospitals, institutions and thousands of professionals; and made a great impact on the scenario of health care industry in India. He is associated with S.B.M. Polytechnic, Mumbai since 1979 and worked as Head, Post-Diploma Department of Medical Electronics. At present he is working as a Head, Department of Electrical Engineering.

- Born on 19<sup>th</sup> March, 1958 in Satara district of Maharashtra State, Dr. Patil obtained DIE, Grad. IETE and **MS** degrees from Walchand College of Engineering, Sangli, IETE, New Delhi and Birla Institute of Technology and Science, Pilani respectively; and **PhD** in Instrumentation Engineering from SGGS Institute of Engineering and Technology, Nanded. The topic of his research was ‘Study of RR Series Variability in Spinal Cord Injured Patients’
- He has **invented, designed and developed** hundreds of equipments, devices, electrodes, sensors, techniques and methods for diagnosis and treatment to reduce human sufferings. These techniques and equipments are widely used by most of the institutions and hospitals in every corner of our country. Few of them are: Solid State Electrocautery for Surgery, Electronic Wheelchair for Disabled, Electrotone a device to control the Bladder, Functional Near Infra-Red Spectroscopy System for Brain Imaging, Heart Rate Variability System for Assessment of Spinal Cord Injury, Electromyograph Instrumentation for Diagnosis of Nervous System, Dry Heat Therapy, Biofeedbacks, Interference Therapy, Multi-Parameter Monitors, Bio-Simulators, Electronic Scooter, etc.; and obtained seven design patents and files four more.
- He has invented a Magnetic Water and Seed Treatment Device that has helped hundreds of farmers in various parts in the country for cultivation of unproductive land and improving yield.
- He has published 36 research papers, **reviewed and chaired National and International conferences and journals** in India, Singapore, Germany, Hongkong, UK, USA, Canada, Austria, Malaysia, Thailand, Switzerland, South Africa, Turkey, France, Sweden, Greece, Italy, UAE and The Netherlands. He has supervised more than **200 dissertations** in various Engineering Institutes and Universities.

- He extended expert support to BMC Mumbai, Government of Maharashtra-MHSDP, AICTE, ISTE, NRDC, AIIPMR, EdCIL, DTE, NITTTR, NCQM, NCCRC, Universities, Hospitals, Industries, Colleges and other organizations for advancement of technology.
- His significant contribution during 1979 in implementation of advanced Biomedical Engineering education and setting Medical Electronics Laboratory from scratch first time in India at Shri Bhagubhai Mafatlal Polytechnic, Mumbai is highly appreciated in the field.
- He designed and conducted number of need based training programs on Biomedical Equipments; written number of books, prepared learning materials; and created innovative gazettes and simulators for training. He was invited to deliver expert lectures on Biomedical Engineering, Patient Safety, Research and Development at number of occasions.
- He is recipient of numerous awards and honors. Few of them are: **National Award for Outstanding Work**, from the President of India (1989); **NRDC National Invention Award** for Meritorious Invention (1994); **UP Government-ISTE National Award** for Innovative Research and Development Work (1995); **Government of Maharashtra - State Teacher Award** for Outstanding Contribution in Engineering Education and Social Work (1999); **IETE-RSK Gold Medal** in Recognition of Distinguished Contribution in the field of **Medical Electronics** through **Research, Development, Education and Training for the last Three Decades** (2010), **Vijay-Rattna Award** for Enriching Human Life and Outstanding Attainments (1997) and **National Award** under the **Ministry of Social Justice and Empowerment** as a **Role Model** from the President of India (2013).
- He is **Fellow** of Institution of Electronics & Telecommunication Engineers; **Senior Member** of Biomedical Engineering Society of India, Institution of Electrical and Electronics Engineers (USA), International Association of Engineers(Hongkong), Asia-Pacific Chemical, Biological & Environmental Engineering Society (Hongkong), International Association of Computer Science and Information Technology (Singapore), Indian Association for Radiation Protection, Indian Society for Technical Education, Paraplegic Foundation, International Association of Science and Technology for Development (Canada), World Academy of Science, Engineering and Technology (USA); and other organizations. He is a Registered Rehabilitation Professional providing assistance to Disability Sector.