

Patri K. Venuvinod

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- Education
- PhD (Machine Tools), UMIST, Manchester, UK, 1971
 - M.Tech. (Design and Production Engineering), IIT, Mumbai, 1965
 - B.Eng. (Mechanical Engineering), Osmania University, India, 1963
- Professional affiliations
- Emeritus Fellow of CIRP (continuing)
 - Has been
Fellow, Institution of Electrical Engineers (UK)
Fellow, Hong Kong Institution of Engineers
Senior Member, Institute of Industrial Engineers
(discontinued upon retirement from City University of Hong Kong)
- Work history
- Professor (Chair) of Manufacturing Engineering, City University of Hong Kong, 1993 – 2002
 - Head (Founding), Dept of Manufacturing Eng. and Engineering Management, City University of Hong Kong, 1987-2002
 - Senior/Principal Lecturer, Dept. of Production and Industrial Engineering, Hong Kong Polytechnic, 1978-87
 - Lecturer/Assistant Professor, Dept of Mechanical Engineering, Regional Engineering College, Warangal, India, 1965-78
- Career highlights
- While at City University of Hong Kong*
- Planned and achieved the growth of the department into the largest department of Manufacturing Engineering in Hong Kong: 750 UG students, 120 PG students, 60 MPhil/PhD candidates, 30 faculty, 25 technical staff, 30 research staff, 4200 sq m laboratory space housing equipment worth some 12 million US \$
 - Developed and implemented strategies to compensate for the declining interest in domestic manufacturing in Hong Kong, launched Bachelor programs in Industrial Engineering, Design technology, and Mechatronic Engineering (the first ever in Asia) in addition to a program in manufacturing Engineering. Also developed Master programs in Engineering Management (the first ever in Asia) and Automation Systems.
 - Led the departmental teams successfully through the validation of bachelor programs in Manufacturing Engineering, Mechatronic Engineering, and Design Technology by CNAAB of UK and HKCAA
 - Several innovations initiated included the Student Centered Activities, System-level Application and Integration Laboratories (a large integrated CNC shop and a large robotic assembly system), and integration of teaching and research activities were appreciated highly
 - Actively nurtured a world-class research culture and funded research portfolio
 - Led the development of a Rapid Prototyping Technology Center for Hong Kong industry with a budget of US\$ 3.5 million in collaboration with Hong Kong Productivity Council
 - Traveled extensively in Canada, China, Europe, India, and USA to

- promote the department and arrange academic collaboration
- Supervised scores of undergraduate and graduate projects and six PhD projects.
- Undertook several major university-wide responsibilities, e.g., senate membership, chairman of reengineering of staff recruitment, staff recruitment for various other departments, new computer networking technologies and chairman of program validation committees

While at Hong Kong Polytechnic

- Program Leader of Higher Diploma in Production and Industrial Engineering and the first ever B.Eng. in Manufacturing Engineering program in Hong Kong
- Initiated and led the Control and Automation Group and the development of the first ever CAD/CAM Laboratory in HK
- Coordinated research development in the Division of Engineering

While at Regional Engineering College, Warangal

- Assisted UNDP Experts in developing the curriculum for M.Tech. (Machine Tools) program
- Arranged industrial collaboration for M. Tech. research projects
- Developed the Machine Tools Laboratory
- Acted as Subject Examiner for several engineering colleges in India
- Founded the Management Studies Group (a student organization)

Research
and scholarship

- Supervised or co-supervised scores of undergraduate student projects, over 15 Master's dissertations and 9 MPhil/PhD theses.
- Published over 100 research papers in reputed international journals and conference proceedings (see separate list)
- Research areas have included
 - Modeling of machining operation (single and two edge oblique cutting, rotary cutting, cutting forces, temperatures, tool wear, chip curvature, chip control)
 - Integrating modeling with process sensing and learning through neural nets and case-based reasoning
 - Graph-based geometric feature recognition and its role in process planning.
 - Technology and innovation management
 - The publications resulting from these works are listed in the attachment.
 - Acted as examiner for several Masters and PhD candidates
 - Acted as the reviewer for several international journals and as the assessor for research funding organizations of Hong Kong and Australia

In recognition of the above achievements, have been invited to participate in the 'distinguished' lecture series at UBC, Vancouver and was given the responsibility of being the Secretary for CIRP's Working Group on Modeling of Machining Operations.

Teaching

- Published 4 books: One book on Rapid Prototyping (Kluwer Publishers) and a trilogy titled "Technology, Innovation and Entrepreneurship". Part I of the trilogy is titled "My World, My Nation", Part II "My Firm", and Part III "My startup".
- Taught several undergraduate courses including Engineering Drawing, Theory of Machines, Machining Science, Control Engineering, Industrial Management, Industrial Automation, Manufacturing Systems,

Management of Technological Innovation, Machine Design
Manufacturing Technology, Manufacturing and Society, Metallurgy,
Quality Control, Tool Design and Work Study

- Taught several graduate courses (Masters and D. Eng) including Machining Science, Machine Tool Design and Management of Technological Innovation
- Lectured on special topics or short courses for professionals from industry
- Kept up with developments in IT and the Internet to improve teaching
- Have been rewarded by very good student evaluations (invariably near the best among peers) throughout the career

Community
involvement

- Served as member of several Government and community panels including Industry Support Fund, Hong Kong Awards for Industry, Vocational Education and HK Research Assessment Exercises
- Organized several local and international conferences including a CIRP Seminar
- Founded International Organization for developing Universities: over twenty engineering colleges from Hyderabad region have been participating actively

Citizenship

US citizen