History of an ASEE Fellow

**KANTI PRASAD**

As of 05.21.2018

**Birthplace: Dabthala (Meerut) U.P., India.**

**Birth date:** July 2, 1937.

**Family:**

I was born in a village S/o Mr. And Mrs. Raja Ram in a business family. The culture of the place however, was agriculture. It is because of my grandfather (Mr. Divan Chand) who was literate in Urdu and Persian, so we commanded the utmost respect in the village, although with no land. I therefore understood the importance of education from my childhood. The quest for learning made it possible for me to become an Engineer in Telecommunications. It also made it possible to get me married to (Uma Goel) D/o Mr. And Mrs. Jagdish P. Goel, a renowned industrialist from Meerut. It also opened the door of USA for me to pursue higher education. I landed on US soil on Sept. 16, 1965 at USC Columbia (SC). Now we are blessed with two sons, a daughter and five grand children, all born here in USA.

**Education:**

Ph.D., University of South Carolina, 1971, Electrical Engineering.

B.E., University of Roorkee India, 1961, First Division, Telecommunication Engineering.

B.Sc., Agra University India, 1958, First Division, Physics and Mathematics.

**Employment:**

1994-Present University of Massachusetts Lowell, Professor/ Founding Director, Microelectronics/VLSI Technology, Electrical and Computer Engineering Dept.

1982-1994 at University of Massachusetts Lowell, Associate Professor/Director Microelectronics/VLSI Technology, Electrical and Computer Engineering Dept

1980-1982 at Boston University, Research Professor

1978-1980 at South Carolina State University, Professor

1970-1978 at South Carolina State University, Associate Professor

1968-1970 at Benedict College, South Carolina, Associate Professor

1965-1968 at University of South Carolina, Teaching and Research Assistant

1963-1965 at University of Roorkee, India, Lecturer

1961-1963 at All India Radio, Senior Research Assistant

**Research and Scholarship**

Member of the Executive Board of North-East Section of the ASEE responsible for agenda of the future conferences and monitoring the finances of the section.

Reviewed papers for IEEE’s journal of Engineering Education.

Reviewed papers for ASEE’s education journal in Engineering Education as well as for Regional and National Conferences.

Reviewed papers for the International journal on Optic Fiber Communication.

Member on the board and Technical Review Committee of “International Journal of Computer Science and Informational Technology” since 2013.

Member on the board and Technical Review Committee of “International Journal in Foundation of Computer Science and Technology” since 2013.

Member on Academic Advisory Board of MEGHE group of Institutions Nagpur, India since 2010.

Member on Academic Advisory Board of Baba Ramdeo College of Engineering and Management, (BRCEM) Nagpur India since 1912.

Conducted Workshop “VLSI Design, Simulation, Testing ad Verification Techniques” at BRCEM, Nagpur India, Jan 8th to 10th 2018.

Received the Outstanding Zone 1 Campus Representative Award In June 2016 at ASEE’s National conference in New Orleans.

Received the Outstanding Zone 1 Campus Representative Award In June 2016 at ASEE’s National conference in New Orleans.

Received the Section Outstanding Campus Representative Award at ASEE’s North East conference held at URI in Kingston, Rhode Island in April 2016.

Received the Best Campus Rep Award for Zone 1 of ASEE, 2014 Awarded Fellow by the American Society for Engineering Education, 2013 Received the Best Teaching Award for NE Section of ASEE, 2012 Received the Best Campus Rep Award for Zone 1 of ASEE, 2012

Received Hon’ble member at MIT on June 11, 2010 from the IAAB of the MEGHE group of Institutions, Nagpur, India.

Received Best Paper Award for Zone 1 at West Point Academy ASEE, 2008

Received Best Paper Award from the New England Section of the ASEE, 2007

Have been selected for inclusion in the AcademicKeys Who's Who in Engineering Education (WWEE), 2005

Received Best Campus Representative Award for Zone 1 2005

Received Best Campus Representative Award for Zone 1 2003 Elected New England Section’s Campus Representative 2003 Selected Awards Committee Chair for A.S.E.E., 2002

Received outstanding Zone I Campus Representative Award from ASEE, 2000

Received Best Campus Representative Award from ASEE, 1997.

Received Certificate of Appreciation at Centennial Celebration from ASEE, 1995. Received Professional Development Award, University of Massachusetts Lowell, 1994.

Recipient of Group Achievement Award for Intelligent Vehicle Highway Systems (IVHS) Crash Avoidance Project Team, in recognition and appreciation of an outstanding contribution to the accomplishments of the John A. Volpe Transportation Systems Center, 1993.

Recipient of Certificate of Appreciation, University of Massachusetts Lowell, for outstanding efforts in assisting students and staff of Bourgeois Residential College Adopt-a-Faculty Program, 1993.

Recipient of Certificate of Recognition, Sixth International Conference on VLSI Design for the Significant and Valued Contribution as Invited Speaker on VLSI Education, 1993.

Recipient of College of Engineering Merit Teaching Award, University of Massachusetts Lowell, 1988.

Recipient of College of Engineering Merit Service Award, University of Massachusetts Lowell, 1986.

Recipient of Certificate of Appreciation from U.S. Department of Transportation/ Transportation Systems Center, Cambridge, MA, 1985.

Elected by the IEEE Board as Senior member of the Institute, 1982.

Rated by SC State as Superior Teacher and Outstanding Scholar, 1980.

Selected by Engineering Joint Council to appear in Who in Who, in Engineering and Engineer of Distinction, 1974.

Recipient of Khosla Research Incentive Award from University of Roorkee, 1964.

**Philosophy of Engineering Education**

From 1980 to 2005, I worked at Volpe National Transportation Center of U.S.D.O.T in Cambridge, MA, which provided me the roadmap for preparing our students for the real world. In addition, I received grants amounting to several million Dollars over the years from Hi-Tech industries such as Analog Devices, Skyworks Solutions, M/A.Com, B.A.E and UTC Aerospace for supporting my instructional and research activities. It enabled me to establish the state of art laboratories in areas of VLSI Design, VLSI Fabrication, and MMIC Design and Fabrication. This also helped me in supervising a dozen of Ph. D dissertations over a broad range of expertize including Sensors, BAW Resonators/Filters, Computer Architecture and Implementations of Transport layer in Hardware etc., At the moment I am supervising a Ph.D dissertation for Syed Abdul Mannan for “Design of Microwave Chip for 5G Mobile Communications embodying broadband spectrum deploying Bulk Acoustic Wave Filter Integration with Microstrip Lines, Couplers and Low Noise Amplifiers”. In the quest of my consummate Engineering education, I took 12 advanced Graduate courses including 5 from MIT after having finished my Ph. D in various disparate disciplines of Electrical and Computer Engineering. It enabled me to initiate and teach Advanced Graduate courses such as Local Area/Computer Networking, VHDL Based Digital Design, and Intelligent Transportation Systems over the years at UMass Lowell.

**ASEE Activities**

Teacher means Guru in Sanskrit, which is a combination of Gu: = Ignorance, Ru: = Destroyer. I have tried to become a true Guru throughout my life. On June 16th 2015 ASEE announced the concept in the name of Engineering Education Innovations. I have volunteered to accept a leading role in this sublime endeavor for the last three years. We are having bi-weekly teleconferences from the fall of 2016 throughout last two years under the leadership of Col. Bobby Grant Crawford and ASEE’s Executive Director Normen Fortenberry for Engineering Innovations as a whole. In order to spread the special theme of Innovations in Engineering Education, I have written six different papers including 3 papers during 1917-18 period, 1st paper presented at ASEE’s NE Conference held in Columbus Ohio in June (25-28) 2017, 2nd paper presented at ICTIEE Noida, India JAN 4th -6th 2018 and third one at NE conference held at Hartford April 27th -28th 2018 . There are two different attributes for a teacher: 1) He must understand the subject matter thoroughly himself and 2) He must master the technique of converting new information presented by him into the Knowledge. This must be accomplished via integration of the new information, through associating it with the accumulated software by the students endowed with at the moment. This is the only way to make them wise else, they remain otherwise. Throughout my teaching career, I have tried to make my students ‘wise’ through a variety of techniques such as mixing fundamentals with the State-of-Art Technologies. I am campus representative of Francis College of Engineering for the ASEE since 1994. I want to share a true story as below:

The gist of Engineering education is preparing the students in such a way that they never became obsolete. This was emphasized at the 50th anniversary of Electronics Association held at Schaumberg, Illinois at Motorola Compus in 1993, where I was the delegate representing my institution. The execute V.P of Motorola announced “Industry neither has resources nor will to train the students, Universities will have to do both i.e teach Fundamentals as well as train them for the Hi-tech Industries”. Dr. John White (former Dean at Georgia Tech.) said “Our job is to teach fundamentals”. The V.P. said “You will be history, and I am awarding $1 M to Purdue University to develop a curriculum which will accomplish both”. Having arrived at my institution, I met President (Late Dr. Bill Hogan) and narrated him the story. I especially said to Bill that, “We are doing this all along, but nobody gave us million Dollars”. Bill looked at me amazed and said, “This is our core mission, since the inception of this institution in 1896, why anybody would pay us for that”.

**Other Professional Activities**

Maintained P.E License of the Division of Licensing Board in Engineering of Commonwealth of Massachusetts since 1980.

Senior member IEEE since 1982 with technical emphasis on Engineering Education.

Member of the Executive board of the ASEE’s North East Section and participating in the business meeting of the board held at University of Hartford, on April 27th -28th 2018 where the decision was made for the ASEE’s NE Section’s Conference for 2019 to be held at University of Buffalo, New York.

Campus Representative for the College of Engineering responsible for recruiting new faculty members and spreading the word of ASEE role.

Historian for ASEE’s North-East Section responsible for keeping the records of the meetings over the years.

Member Computer Engineering’s Graduate Program of the ECE.

Coordinator for VLSI/ Semiconductor Graduate Certificate program.

Director, VLSI Design lab responsible for maintaining the Cadence License along with Software and Hardware.

Prime Instructor for MMIC Design and Fabrication along with integration of ADS Software in microwave lab equipped with measurement and characterization techniques.

Prime Instructor for VLSI fabrication along with semiconductor processing in ETIC along with developing the manual for instructional processing, measurements and characterization techniques.

Served as Faculty Marshal at the Commencement, May 2018 responsible for aligning the Faculty and seating them appropriately.

Faculty Advisor to Indian Student Association

Faculty Advisor to Southeast Asian Student Association