

## Curriculum Vitae of Kasturi Vasudevan

1. **Name (surname underlined):** Kasturi Vasudevan
2. **Address:** Dept. of EE, IIT Kanpur  
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3. **Date of birth:** 6th April 1969
4. **Nationality:** Indian
5. **Sex:** Male
6. **Marital Status:** Married, one daughter, 11 years, as of 2019
7. **Category:** General
8. **Present Position:** Professor, Dept of EE, IIT Kanpur
9. **Areas of Specialization:** Telecommunications and Signal Processing
10. **Academic Record:**
  - (a) *Bachelor of Technology (Honours)* (1991): Department of Electronics and Electrical Communication Engineering, Indian Institute of Technology, Kharagpur.
  - (b) *Master of Science (By Research)* (1996): Department of Electrical Engineering, Indian Institute of Technology, Madras.  
Thesis title: *DSP-Based Algorithms for Voiceband Modems*.
  - (c) *Doctor of Philosophy* (2000): Department of Electrical Engineering, Indian Institute of Technology, Madras.  
Thesis title: *Efficient Noncoherent Detectors for Multilevel Signals in Fading Channels*.
11. **Experience:**
  - (a) **Sept'91 to July'92:** *Assistant Executive Engineer* in the CAD-VLSI Group, Microelectronics and Computer Division, Indian Telephone Industries Limited, Bangalore.  
Involved in the development of a Statistical Fault Analyzer, for the VINYAS-GX (V2RO) CAD package for digital circuits.
  - (b) **Dec. 1999 to Dec 2000:** *Post Doctoral Fellow* at the Mobile Communications Lab, Swiss Federal Institute of Technology, Lausanne, Switzerland. Implemented the Software Radio using MMX assembly language. The Software Radio testbed has been demonstrated on two 450 MHz Pentium II dual-processor machines running the RealTime Linux kernel.

- (c) **Jan 2001-June 2001:** *Engineer* at Texas Instruments (India) Ltd, Bangalore. Involved in implementing the *V.34* voiceband modem on a TMS C55x DSP processor.
- (d) **July 2001-Dec 2007:** *Assistant Professor* at the dept. of EE, IIT Kanpur.
- (e) **Jan 2008-Oct 2018:** *Associate Professor* at the dept. of EE, IIT Kanpur.
- (f) **Nov 2018-:** *Professor* at the dept. of EE, IIT Kanpur.

**12. Courses Taught:**

- (a) ESc102N, Introduction to Electronics (Lecture, Tutorial, Practical), undergraduate (UG).
- (b) EE200, Signal and Systems (T), UG
- (c) ESO210, Introduction to Electrical Engg (T, P), UG
- (d) EE301, Digital Signal Processing(L, T), UG
- (e) EE320, Principles of Communication (L, T), UG
- (f) EE321, Communication Systems (L), UG
- (g) EE600, Mathematical Methods in Signal Processing (L), UG
- (h) EE602, Statistical Signal Processing - I (L), postgraduate (PG)
- (i) EE605, Introduction to Signal Analysis (L), PG
- (j) EE622, Communication Theory (L), PG
- (k) EE623, Detection & Estimation Theory(L), PG

**13. BTech Projects:** Supervised several BTech projects

**14. MTech Supervision:** Guided 95 MTech students

**15. PhD Supervision:** Supervised six students.

**16. Sponsored Projects:**

- (a) Design and Development of a Burst Acquisition System for Geosynchronous Satcom Channels. Sponsoring organization: DEAL-DRDO, Dehradun. Completed.  
One journal and one conference paper published.
- (b) India-UK Advanced Technology Center of Excellence in Next Generation Networks, Systems and Services, Phase 1 & 2. Sponsored by: DST-EPSRC. Completed.  
Collaborated with IIT Madras, IISc, IIT Delhi, IIT Bombay, IIT Hyderabad, University of Southampton, University of Ulster, University of Cambridge, University of Surrey, University College of London, University of Bristol.  
Published one journal and three conference papers.  
Indo-UK Workshops attended:

- i. Feb. 2010, IIT Madras
- ii. June 2010, University of Ulster, UK
- iii. Aug. 2012, University of Cambridge, UK

Invited speaker at the International Federation of Nonlinear Analysts (IFNA) World Congress, held in Athens, Greece, 25th June-1st July 2012.

#### 17. Administrative Experience:

- (a) (2001-2002): Member, Dept. Undergraduate Committee.
- (b) (2002-2003): Member, Dept. Undergraduate Committee.
- (c) (2003-2004): Member, Dept. Undergraduate Committee.
- (d) (2004-2005): Member, Dept. Computing Services.
- (e) (2005-2006): Member, Dept. Postgraduate Committee and Dept. Long Term Planning and Review Committee.
- (f) (2006-2007): Member, Dept. Long Term Planning and Review Committee.
- (g) (Jan 2008-Sept 2015): Convener, Dept. Time-table Committee
- (h) (Oct 2017-Sept 2018): Convener, Dept. Undergraduate Committee
- (i) (Oct 2018-Oct 2019): Member, Dept. Undergraduate Committee
- (j) (Oct 2019-): Member, Dept. Aesthetics and Safety Committee

#### 18. Publications

#### 19. Books

- (a) K. Vasudevan, *Digital Communications and Signal Processing*, 2nd ed, Universities Press, 2010.
- (b) K. Vasudevan, *Analog Communications: Problems & Solutions*, Ane Books, 2018.
- (c) K. Vasudevan, *Basic Electronics: Problems & Solutions*, Ane Books, 2018.

#### 20. Selected Invited Talks:

- (a) “Coherent Turbo Coded OFDM”, 6<sup>th</sup> International Federation of Nonlinear Analysts (IFNA) World Congress 2012, held in Athens, Greece, from 25th June to 1st July, 2012.
- (b) “Coherent Detection of Turbo Coded MIMO OFDM”, International Conference on Communication, Image and Signal Processing, Nov. 18 – 20, 2016, Dubai.

- (c) “Data Detection in Single User Massive MIMO with Re-Transmissions”, IEEE International Conference on Industrial and Information Systems, 1 – 2 Dec 2018, IIT Ropar, India.

21. **Reviewership**

22. **Editor-in-Chief**, *Semiconductor Science and Information Devices*, Bilingual Publishing Co., Singapore.

23. **Awards and Recognitions**

- (a) Awarded the IEEE Student Travel Grant for presenting the paper titled “DSP-Based Noncoherent Detectors for Multilevel Signals in Flat Fading Channels”, at the IEEE International Conference on Universal Personal Communications, Florence, Italy, Oct., 1998.
- (b) Chaired a session on *Modulation, Coding and Fading Channel* in the *IEEE International Conference on Communication Systems*, Singapore, 2002.
- (c) Chaired a session on *Coding Techniques* at the *IASTED International Conference on Communication Systems and Applications*, Banff, Canada, 2004.
- (d) Chaired a special session *MAAZE: Wireless Communications: The March Towards Absolute Zero*, in The Twelfth International Conference on Wireless and Mobile Communications (ICWMC), November 13—17, 2016, Barcelona, Spain.
- (e) Chaired a session on *Communication and Signal Processing*, in International Conference on Communication, Image and Signal Processing, Nov. 18—20, 2016, Dubai.
- (f) Listed in *Marquis Who’s Who in Science and Engineering*, 2008.
- (g) *Fellow*, IETE.
- (h) *Senior Member*, IEEE.
- (i) **2018 Albert Nelson Marquis Lifetime Achievement Award.**