

## Department of Electronics & Communication Engineering

**Name**  
**Designation**  
**Year of Joining:**

Avinash Gajanan Keskar.  
Professor  
1988



### Courses Taught

Course Number & Title	Level	Year taught	Whether course developed by me
Digital Circuits and Design	UG	1988 TO 1996 2006 TO 2008	Yes
Basics of Microprocessors	UG	1992 TO 2008	Partially modified
Advanced Microprocessors	UG	1996 TO 2004	Yes
Advanced Power Electronics	PG	1992 TO 1996	Yes
Fuzzy Logic Applications	PG	1996 TO 2006	Yes
Basic Electrical Engineering	UG	1988 TO 1990	No
Embedded Systems	UG and PG	2006 TO 2008	Yes
Laboratories for the Above courses	UG and PG	1988 to 2008	Yes

## Research:

### Sponsored Research / Development Projects

Year	Sponsor	Title of Project	Amount	Co-Investigators
1992	AICTE	Microprocessor Laboratory	7.50 Lakh	None
1995	AICTE	Modernisation of Electronics Labs	5.00 Lakh	None
2005	MHRD	Fuzzy Embedded Platform	7.00 Lakh	None
2013	MHRD	Centre of Excellence	5.00 Crores	Kothari and Others

**Doctoral Supervision:**      Completed 8      Ongoing 2

**Publications:**                      Journals: 20      Conferences: 30

### 3. Collaboration with foreign University

University of Sheffield Hallam Sheffield, U. K	Development of Fuzzy Logic Controller for a Forge Hammer
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### Articles and Books:

1.	Dr. Avinash Keskar & Dr. Ashwin Kothari	Transactions on Engineering Technologies Volume II – Special Edition of the World Congress on Engineering and Computer Science 2008	American Institute of Physics (AIP-USA) for the WCECS 2008. ISBN: 978-0-7354- 0663-6.	2008
2.	Dr. Avinash Keskar & Dr. Ashwin Kothari	Intelligent Machine Learning & Data Analysis*	Springer	2008
3.	Dr Avinash Keskar	IEEE Internet Base Book on Digital Logic Design	Collaboration with IIT Gandhi Ngar	2012- 2013

#### **4. Administrative Assignments**

<b>S.N</b>	<b>Year</b>	<b>Nature of Responsibility</b>
1	1989	Member of REC admission committee
2	1991	Deputy Chief of Spot valuation Center of Nagpur University
3	1992	Co-officer of REC admission committee
4	1993	Co-officer of P.G. admission committee
5	1994	Deputy Chief of Spot valuation Center of Nagpur University
6	1995	Co-officer of P.G. admission committee
7	1995	Coordinator for ISTE Annual conference (Silver Jubilee)
8	1996	Co-officer of REC admission committee
9	1997	University Examination In-Charge (All U.G. and All P.G. courses)
10	1999	Chief of Spot Valuation center of Nagpur University
11	1999	Coordinator for Apprentices recruitment program
12	2001-06	Chairman of Material Procurement committee (Plan grants)
13	2002	Dean (Administration) for 6 months
14	2003	Member of Central Examination Committee
15	2003	Coordinator for procurement of Equipments under World Bank Grant
16	2004-06	Head of the Department of Electronics and Computer Science
17	2004	Co – Chairman AIEEE Admissions
18	2006	Co – Chairman AIEEE Admissions
19	2006-09	Dean (Research & Development) & TEQIP Coordinator
20	2010	Chairman AIEEE Admissions
21	2013	Chief Vigilance Officer
22	---	Chairman of Many committees appointed by Director for Specific purpose

## 5. Research Plans:

- Current areas of work are Fuzzy Control applications, Embedded controllers and Soft computing in Image Processing. Fuzzy control technique is a soft computing tool and has been incorporated in number of products and electronic processes. It is also found useful in embedded control applications. Real time processes that use great amount of information require the use of fast fuzzy controllers that need to be implemented on ASICS. Several manufactures in automotive industry are using fuzzy logic technology to improve the quality and reduce development time. FPGA based design of such controllers and using Single Instruction Multiple Data Architecture will be very much useful.
- Six candidates have completed PhD work under my supervision. The primary area of work is in Smart Transportation Systems; Rough Fuzzy set applications in Image processing and control applications with embedded systems. I wish to continue with these projects.
- Very Recently the CoE in Combedded Systems Project granted by MHRD is in progress.