

**CURRICULUM VITAE**  
**(Jan. 2005)**

- 1. Name** : Dr. (Mrs.) Kumkum Garg  
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and  
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- 2. Date and place of birth** : Nov. 25, 1949, Roorkee
- 3. Nationality** : Indian
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**5. Educational Qualifications:**

Examination Passed	Institute	Year	Subject	Division/ Rank
Ph.D.	Univ. of London U.K.	1984	Computers	--
DIC	Imperial College London, U.K.	1984	Computers	--
M.Tech.	University of Roorkee, India	1976	Computers	Hons./1
P.G. Diploma	University of Roorkee, India	1975	Computers	I / 1
B.E.	University of Roorkee, India	1971	Electronics	I / 3
B.Sc.	University of Bangalore, India	1967	Phy, Chem, Maths.	I

**6. Experience:**

- (a) Teaching  
At University / IIT Roorkee, since 1976
- (i) From Oct., 1989 onwards Professor
  - (ii) 1985 - 1989 Reader
  - (iii) 1976 - 1985 Lecturer
- (b) Professional  
At Bharat Electronics Limited, Bangalore
- (i) June 1971 - Oct. 1971 Trainee Officer
  - (ii) Nov. 1971 - Dec.1973 Assistant Engineer

**7. Research Papers:** **60 (List of most recent papers in the area of Networking and security is enclosed)**

**8. Current Interests & Assignments:**

**Most of my current work is in the area of Computer Networking and Security. A majority of my Research, PG and UG students theses are in this area. In this cv I have highlighted the aspects related to networking and security.**

- (a) **Coordinator for IIT Roorkee of the National Programme for Human Resource Development in IT, of the MHRD, GoI, which is concerned with IT-enabling technical education in the country, to meet the future challenges and using new networking technologies to improve its quality.**
- (b) Chairperson of the IIT Roorkee Standing Committee for the prevention of Sexual harassment of women at their work place.

**Research / sponsored projects:**

**On going:**

- (i) **Sponsored research project from Ministry of Info.Tech, GOI, entitled 'IT localization for the socio-economic development of Uttaranchal', outlay Rs. 100 lakhs, from 2001-2004. This project is concerned with providing medical, tourism, egovernance and other facilities to the public of Uttaranchal state through state-wide networking.**

**Completed:**

- (ii) 2002: a consultancy project from Govt. of Uttaranchal, for developing their official website, outlay Rs. 1.15 lakhs.
- (iii) 1996: from the AICTE, Govt. of India, a project entitled 'LTAG based generation of Hindi sentences from English LTAGS', contracted amount: Rs. 7 lakhs.
- (iv) 1992-94: DRDO Project on Development of an Integrated Knowledge Base and Natural Language Interface for Hydrological Data, outlay Rs. 1 lakhs.
- (v) 1992-95: DOE project on Training in Natural Language Processing for College Teacher, outlay Rs. 13 lakhs.
- (vi) 1989-91: Coordinator, CLASS Project, GOI, for UOR Resource Center.

**Expert member** on the following Technical Committees:

- (i) MHRD, GOI Parliamentary Standing Committee on technical education, 2002
- (ii) UGC Standing Committee on Computer Education and Development, 1996-1999.
- (iii) UGC Committee for evaluation of USICs, 1999.
- (iv) Executive Committee, Indian Society for Continuing Engineering Education (ISCEE), 1997 onwards.
- (v) Vice chancellor's nominee on Board of Studies of Himachal Pradesh University, Shimla, 2002-2003
- (vi) Member, Governing Body of Ishan Institute of Management & Tech., Greater Noida, and SD College of Management Studies, Muzafarnagar, since 2001.

In addition, I have acted as expert member of various Computer related Committees of UGC, DOE, UPSC, AICTE and DOEACC, since 1993.

### **9. Visits Abroad:**

- (a) **London, U.K. : From 1981 - 1984, to pursue research leading to Ph.D. in the area of Distributed Systems and Computer Networks, at Imperial College of Science & Technology.**
- (b) Toulouse, France: In Sept 1983, to attend an International Workshop on Timed Petrinets.
- (c) **San Francisco, U.S.A.: In May 1984, to present a paper in the 4<sup>th</sup> International Conference on Distributed Computing Systems.**
- (d) London UK: Post Doctoral work (as visiting faculty) in Natural Language Processing at Imperial College, from Oct '91 to March '92.
- (e) Colorado Springs, USA in June '03, to present research papers at Intl. Conf. BIS 2003.
- (f) Silicon Valley, USA: In Oct 2004, to visit Cisco systems, on their invitation, to explore avenues for mutual collaboration in networking.

### **10. Miscellaneous:**

- (a) Received a one-year assignment as Assistant Professor in the Dept. of Electrical and Computer Engineering at Louisiana State University, U.S.A. in 1987 – 88.
- (b) Edited a Report on 'Natural Language Processing for working Professionals under the aegis of Indian Society for Technical Education (Continuing Education Project, U.O.R., Roorkee) sponsored by MHRD, Govt. of India, Oct. 1992.

### **11. Book Published:**

**Title: Advances in Computers & Communication.  
Proceedings of the 7<sup>th</sup> International Conference on Advanced Computing and Communication (ADCOM99) Editors: C R Das, R C Joshi, K Garg**

### **12. Membership of Honorary and Professional Societies:**

Fellow – Institution of Engineers (India)  
Senior Member – IEEE Computer Society, USA  
Life Member – Indian Society for Technical Education (ISTE),  
Life Member – Indian Society for Continuing Engineering Education (ISCEE),  
Life Member – Society for Machine Aids for Transaction and Communication (SMATAC)

### **13. Awards Received:**

Listed in International Who's Who of Professional and Business Women, since April '98.

3-year Commonwealth Scholarship for higher studies (Ph. D) in London, 1981-1984.  
CSIR Senior Research Fellowship, Govt. of India, Jan. 1976 – June 1976.  
Gold medal for standing first in P.G. Diploma / M.Tech. Univ. of Roorkee, 1971.  
Two gold and one silver medal for best girl student in B.E, Univ. of Roorkee, 1971.  
Four year Merit Scholarship in B.E., Univ. of Roorkee, 1967 – 1971.

#### **14. Graduate Students supervised:**

- (a) **M.Tech. / MCA / M.Phil. – 105 awarded (list attached), 4 ongoing. As can be seen from the list, all the theses in the last 10-12 years have been in the area of networking.**
- (b) Research Students – 2 in progress, 1 submitted, 3 awarded

#### **15. Courses Taught (at Undergraduate and Postgraduate level): 20**

Analytical Tools for Computers Modeling  
Artificial Intelligence  
Automata Theory & Formal Languages  
Computer Architecture  
Computer Hardware Design  
Computer Systems Organization  
Data Base Management Systems  
Data Structures  
Fortran Programming  
Introduction to Minicomputers  
Microprocessor Theory and Application  
**Mobile Computing**  
Operating Systems  
Real Time Processing  
Recent trends in hardware and software design  
Switching Theory and Logical Design  
System Engineering  
System Programming / Software  
16 – bit Microprocessors  
**Computer Networks/ Advanced Computer Networks**  
**Cryptography and Network Security**

#### **16. Institute assignments:**

- **Currently Head, Information Superhighway Centre**
- **Member, Strategic planning Committee of IITR**
- **& Chairperson, Departmental Undergraduate Committee**
- Member, University IT Steering Committee, 2001.
- Organized a number of National and International Workshops, Symposia and Conferences, as given below:
  1. Staff Advisor, SYNC 2001, student technical symposium and festival.
  2. Chairperson, Organizing Committee, International Conference on Advanced Computing and Communication, ADCOM 99, Roorkee, Dec. 22-24, 1999.

3. National Workshop on Role of Information Technology and Continuing Education in Human Resource Development, Oct. 1998.
  4. All India Workshop on Natural Language Processing for Artificial Intelligence, Roorkee, January 1989.
  5. Symposium on Mini- micro Computer & Automation, Roorkee, March 1978.
- Chair / member of many University Committees on development of courses related to Computer Science and Technology.
  - Have held all major OC ships in the Department.

**17. List of Ph. D theses guided:**

1. Afaq Ahmed, 1989, `On a design approach for reducing aliasing errors and achieving higher circuits.
2. Nupur Prakash, 1998, `Natural language processing using Artificial Neural Networks`.
3. K Sivanandan, 1999, ` On the enhancement of Timed Petrinet theory and its applications to some aspects of Computer systems`.
4. **R B Patel, (submitted 2004), ` Mobile Agents for Distributed and Parallel processing`.**