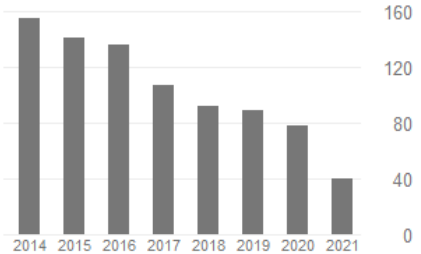


**Dr. TARA SINGH KAMAL**

FIE (I), FIETE, Life.Sr. MIEEE (USA)  
 LIFE MEMBER ISTE,  
 LIFE MEMBER INDIAN  
 SCIENCE CONGRESS ASSOCIATION,  
 CHARTERED ENGINEER .

**Google Scholar Score**

Citations	1312	542
h-index	21	12
i10-index	40	17



**Dr. TARA SINGH KAMAL FIE**  
**VICE PRESIDENT IE (I)(2001-02)**  
 CHAIRMAN (1999-2001)  
 Punjab & Chandigarh State Center

**The Institution of Engineers (I)**  
 Madhya Marg, Sector 19-A CHANDIGARH

**President of Engineering Sciences Section of INDIAN SCIENCE CONGRESS ASSOCIATION**

for the year 2004-05, 92<sup>nd</sup> Session in JANUARY 2005 at AHMEDABAD.

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**ACADEMIC QUALIFICATIONS:**

- Ph.D. (March 1983): Performance of P.S.K. Communication system in presence of multiple interference and noise. (Punjab University, CHANDIGARH)
- M.E. (Major: Electronics & Communication) July 1975 Communication Systems Specialization (Secured first rank and was awarded a gold medal.) University of Roorkee, Roorkee
- B.E. (Major: Electronics & Communication Engineering.) Nov.1965 University of Roorkee, Roorkee

**EXPERIENCE:****a) Research Experience**

The following candidates were guided for the Ph.D. degrees:

1. Dr. Sandeep Bajaj obtained his PhD Degree on Design of Meta Material Based Wearable Antenna for Wireless Applications, Oct. 2024.
2. Dr. Kiranpreet Kaur obtained her PhD degree on topic, "Performance Analysis of wireless communication system over fading channel, Dec. 2020.
3. Dr. Ritu Gupta obtained her PhD degree on the topic, "Performance Evaluation of Channel Encoding Techniques for FSO Communication System" Jan 2020.
4. Dr.Sushil Kakad obtained his PhD degree on the topic Development of Microstrip Patch Antennas using Defected Ground Structure for emergency management" Sept. 2019.
5. Dr. Sonu Bala Garg obtained her PhD degree on the topic, "Development of improved Hybrid model for the analysis of medical data". Aug. 2019.

6. Dr. Paramjit Singh, "Improved QoS for Communication Networks Based on Fuzzy Logic Routing Mechanisms. August-2016
7. Dr. Kanika Sharma obtained her PhD degree on the topic, " Medium access Control and routing based life time enhancement for wireless sensor networks, 2015
8. Dr. Sanmukh Kaur obtained her PhD degree on the topic, "Implementation of all optical arithmetic and logic unit based on nonlinear properties of semiconductor optical amplifier" June 2015.
9. Dr. Rakesh obtained his Ph.D degree on the topic." Performance Analysis of Hybrid Passive Optical Networks" June 2015
10. Dr. Jagtar Singh Sivia obtained his PhD degree on the topic, "Neurocomputational approach for design of Microstrip Patch Antennas" Nov.2014.
11. Dr.Kamaljit Singh Bhatia obtained his PhD degree on the topic" Investigations on Optical Orthogonal Frequency Division Multiple Access (OOFDMA) Systems" June 2014.
12. Dr. Urvinder Singh obtained his Ph.D degree on the topic "Simulation and Optimization of Antennas Using Stochastic Methods."August 2013.
13. Dr. V.Rihani obtained his PhD degree on topic, " Abstraction and Recognition Using Artificial Neural Networks" Sept.2013.
14. Dr. J.S.Ubhi obtained his PhD degree on the topic, "Performance of Digital Transmissions with Diversity Reception in Fading Environment" in Sept. 2010.
15. Dr. Sunil Kumar Wadhwa obtained his PhD degree on the topic, "Physical Routing Impairments in WDM Networks" 2009.
16. Dr. Amarpal Singh obtained his PhD degree on the topic "Analysis and Simulation of WDM Systems in the Presence of FWM" 2008.
17. Dr. Manoj Kumar obtained his PhD degree on the topic "Analysis, Simulation and Performance Evaluation of Optical Solution Transmission Systems" 2007.
18. Dr. Harish Kumar obtained his PhD degree on the topic "Performance Analysis of Broadband Optical Communication System with Fiber Impairments" 2005.
19. Dr. Amar Partap Singh obtained his PhD degree on the topic "Development and Implementation of Intelligent Soft Instrumentation Systems" 2005.
20. Dr. Rajiv Kapoor obtained his PhD degree on the topic "Neural Network Based Off-line Recognition of hand Written, Tilted Characters of Any Size and Font for Indian Language Scripts" 2004.
21. Dr. Manjeet Singh Patterh obtained his PhD degree on the topic "Performance Analysis of Digital Communications over Fading Channels" 2003.
22. Dr. Rajinder Singh Kaler obtained his PhD degree on the topic "Performance Analysis of Broadband Optical Communication Systems with Fiber Non-linearities and Dispersion" 2003.
23. Dr. Neelam Rup Prakash obtained her Ph.D. degree on the topic "Intelligent Trajectory Planning of Robotic Manipulators" 2002.

24. Dr. Harbhajan Singh obtained his PhD degree on the topic “Development of Algorithm for Optimum Utilization of ISDN and LAN” 1996.
25. Dr. Balwinder Singh obtained his PhD degree on the topic “Computer Oriented Approach to the Optimized Design of Computer Systems” 1992.
26. Dr. Pritpal Singh obtained his Ph.D. degree on the topic “Optimum Area Coverage with Limited Radio Channels to Satisfy the Mobile Interference Criterion” 1990.
27. Dr. R.S.Prasad obtained his degree on the topic “Performance of Optical Communication System” 1985.

At present, guiding following scholars for Ph.D.:

Two more have submitted and evaluation reports are awaited.

#### **b) ADMINISTRATIVE EXPERIENCE**

- *Principal, Guru Teg Bahadur Khalsa Institute of Engineering and Technology, Chhapianwali, Malout-152107, District – Muktsar. (Dec 2003 to Oct 2004)*
- *PROFESSOR & HEAD of DEPARTMENT of Electronics & Communication Engineering, Sant Longowal Institute of Engineering & Technology, LONGOWAL (Distt. SANGRUR) 148106 PUNJAB(July 1999 to August 2003)*
- *PROFESSOR, Electronics and Electrical Communication Engineering, Punjab Engineering College, CHANDIGARH (March 1991 to June 1999)*
- *OFFICER on SPECIAL DUTY(1999-2002) at Sant Longowal Institute of Engineering and Technology, Longowal*
- *AS DEAN RESEARCH AND TECHNOLOGY TRANSFER 1994-95, 1995-96*

↳ Coordinated the Research and Technology Transfer activities.

↳ Research and Development - Planned the short term and long term policies of the college. Schemes from the various disciplines got prepared from individual members, which were scrutinized by me and were sent to AICTE, MHRD and other sponsoring agencies. I piloted and presented these schemes before various bodies. My own two schemes have been approved and are being implemented in the Department of Electronics and Electrical Communication Engineering

(a) Industrial Electronics & Comm. Lab

Rs. 10 lakhs

(b) Neural Network Center

Rs. 10 lakhs and Rs. 10 lakhs again.

Some schemes were approved and implemented earlier also.

- i. My fourteen candidates have already earned their Ph.D. degrees and three students are registered for PhD degrees.
- ii. Technology Transfer- coordinated the ‘consultancy’ activities of the college concerning all the departments. The total turnover up to date is more than Rs. 8 lakhs. The clients for consultancy are IAF, Engineering Department Chandigarh Administration, Housing Boards of Punjab, Haryana and Chandigarh, Punjab Govt., Department of Environment, Pollution Board, industries such as EIDER, Steel Strips etc.
- iii. Promotion of Industry Institution Interaction and R&D work - Organized various seminars at State and National level to promote the interaction between Industry-Institution. Experts from PTL, MIL, HMT, PUNWIRE, EIDER, PCL etc. participated.
- iv. Participation on Policy Planning - I have been participating in policy at
  - a) College level - as a member of Principal's council.

- b) University level - as member of board studies
- c) As member of research degree committee
- d) As a member of Research Board of Punjab University, Punjabi University, Guru Nanak Dev University & revised the curriculum of the Universities and an Expert on various Committees of organizations.
- e) Member of Governing Council of Thapar Institute of Engineering and Technology Patiala.
- f) Member of Governing Council of Regional Engineering College, Hamirpur (H.P.).
- g) Member of Academic Council of the Regional Engineering College, Hamirpur (H.P.).
- h) Council Member of the Institution of Engineers (I) since 1991-92 to 1996-97 and worked as Chairman (All India) of Electronics & Telecom Engineering Division for two sessions 1993-94, 1994-95, 1998-99, 1999-2000. Organized four National Conventions and presided over them.
  - 9th National Convention of ET at Roorkee, March 1994.
  - 10th National Convention of ET Engineers at Coimbatore Oct 94
  - 15<sup>th</sup> National Convention of ET Engineers, JabalPur March 2000.(Presided)
  - 16<sup>th</sup> National Convention of ET Engineers, Sant Longowal Institute of Engg. & Tech. Longowal (Punjab) March 2001.( Presided)
  - 17<sup>th</sup> National Convention of ET Engineers HyderaBad Oct 2001.(Guest of Honor)
  - 18<sup>th</sup> National Convention of ET Engineers, Cochin, Oct 2002 (Presided over)
  - 19<sup>th</sup> National Convention of ET Engineers, Patna, November 2003, Guest of Honor.
  - Presided over the other All India Seminars of ET throughout the country.
- i) Member of Engineering Information Service Committee (EISC). We are in the process of setting up a National Library named after Sir R.N. Mukherjee. ESIC at Calcutta, which will be connected to start with, four centers in metros and after wards to other state centers the most of the infrastructure has been made available which will be connected via CALINET available in Calcutta.

- ***IEI – Activities***

During my tenure of Honorary Secretary ship of the Punjab, Haryana, and Chandigarh 1988-89 to 1993-94) state center, I have been responsible for organizing:

- Annual General Meetings and Engineer's day Annually
- Golden Jubilee Celebration of the Center and various other seminars and functions.
- Supervised bi-annual examination of section A and B of the institution covering the three states Punjab, Haryana and Chandigarh (1500 students) since summer 1989 examination.
- Organizing Secretary of International Conference on Construction Industry, Disaster management....
- Chairman Organizing Committee of Diamond Jubilee Celebrations of Punjab and Chandigarh state Center - 2003

- ***AS HEAD OF ELECTRONICS & ELECTRICAL COMMUNICATION DEPARTMENT (E&EC)***

From 28.9.81 to 3.1.1982, April 1983 to Dec. 1983, Nov. 1990 to March 1991.

Prepared the Plans for expansion of the Department E&EC and got the additional grants sanctioned.

Prepared a special proposal got a special grant sanctioned for Expanding and Modernization of

E&EC engineering and the department. This grant was utilized for setting up the new Laboratories for Computer/Microprocessors in the department of E&EC.

- **AS CHAIRMAN OF ESTATE MANAGEMENT COMMITTEE 1992-94, and FROM MAY 1998 to JUNE 1999.**

Coordinated the activities of:

- Estate Officer - who looks after the planning, construction of the new buildings and Maintenance of the existing buildings.
- Water Supply and Electricity - Old non-functional facilities such as overhead tanks, under ground tanks, boosting of water to various levels of the building got operative.
- Widening & Metalling of Roads - All the roads in the campus were widened and remetalled. Some accident-prone areas were detected and were removed for smooth movement of traffic.
- Internal Telephones - Internal telephone facility was created for better working of the faculty and staff.
- Watch & Ward - Various posts were marked and watch and ward staff was detailed.
- Checked the night patrolling, during late night hours.
- Sanitation of the Campus - various facilities were generated on the campus.
- Horticulture and Gardening - Tree plantation has been made a regular feature and thousands of the new plants were planted for creating better environments for studies.

### **c) TEACHING EXPERIENCE:**

1.1 Faculty positions held (PUNJAB ENGG.COLLEGE CHANDIGARH)

- a) **Professor** from 27.3.91 (a.n.) to 30.6.99 in the Dept, of Electronics and Electrical Communication, Punjab Engineering College, Chandigarh.
- b) **Associate Professor** from 26,Dec. 1979
- c) **Assistant Professor** from 18.1.1966

**1.2 Professor and head of Electronics & Communication Engg. Sant Longowal Institute of Engg. & Technology. LONGOWAL 148 106 Distt. Sangrur (PUNJAB) INDIA since 1<sup>st</sup> July 1999 to 31<sup>st</sup> August 2003. Again from June 2005 to June 2006.**

2 Teaching M.E. (E & Ec.) students:

- Digital Processing of Signals
- Detection, Estimation and Modulation theory
- Advanced Communication theory
- Coding Techniques
- System Theory
- Switching Circuits
- Computer Organization
- Computer Systems
- Computer Communication

3 Teaching B.E. (E & Ec.) students:

- Communication Theory
- Acoustics
- Radio Communication
- Industrial Electronics Control Components
- Design of Electronics Equipment
- Electronics Measurements

- Sequential circuits
- 4 Organized a refresher course on Microprocessor and its applications in Dec. 1981.
  - 5 Organized a refresher course on "CAD on PC" in July 1988.

**d) PRACTICAL EXPERIENCE**

1. Founder faculty member and helped in setting of the following Laboratories in the Dept.:
  - Electronics
  - Radio Communications
  - Acoustics
  - Digital Electronics and Systems
  - Computers and Microprocessors
  - Prepared various proposals for setting the Laboratories and their innovations.
  - Also prepared the proposals (which were accepted) for:
    - i. Expansion of existing department of Electronics & Electrical Communication
    - ii. Starting a new course in Computer Science and Engineering.
2. Guided the various projects from time to time on the following packages:  
WordStar, WordStar 2000, Softword, Lotus 1-2-3, Auto-cad
3. Designed, fabricated RC-active network (filter) using operational amplifiers to obtain very sharp cut off's.
4. Guided two students to present papers at ALL INDIA TECHNICAL TALK BELL AWARD in 1976. One of the students got 2nd and the other got 3rd prize.
5. Guided a student to present papers at INSTITUTION OF ENGINEERS, national conference (she secured a first prize and a gold medal)

**e) PROFICIENCY IN COMPUTERS**

1. HDL's (Hardware Description Languages)
  - VHDL
2. Languages
  - FORTRAN-IV
  - FORTRAN-77
  - BASIC
  - PROLOG
3. Operating Systems
  - UNIX
  - ENIX
  - LINUX
  - WINDOWS 95/98/NT
  - DOS

**f) AWARDS:**

1. Merit Scholarship on the basis of entrance examination to B.E. Course.
2. Stood 1<sup>st</sup> in M.E. Examination and Gold Medal was awarded.
3. **National Award for Lifetime Contribution in the field of Electronics and Telecommunications at Patna on 29<sup>th</sup> November 2003.**
4. **Awarded Sir Thomas Ward Memorial Medal for best paper in the Electronics and Telecommunications Part of the IEI Journal at Lucknow in December 2003.**

5. **President of Engineering Section of Indian Science Congress Association for its 92<sup>nd</sup> session held at Ahmedabad on 3<sup>rd</sup> – 7<sup>th</sup> January 2005.**
6. **Awarded Sir Thomas Ward Memorial Medal for best paper in the Electronics and Telecommunications Part of the IEI Journal at Bombay in December 2004.**
7. **Delivered Platinum Jubilee Lecture at 95<sup>th</sup> session of ISCA at Vizagapatnum on 4th January, 2008.**

**g) ADVANCED SPECIALISED COURSE:**

1. Sequential Summer School in Electronics & Communication Department, University of Roorkee May-June, 1972.
2. Sequential Summer School in Electronics & Communication Department, University of Roorkee May-June 1973.
3. Short-term course on Digital Electronics and Systems at I.I.T. Kharagpur. (The course was of practical orientation mainly on digital circuitry and digital communication) May-June, 1975.
4. Short-term course on communication systems at IIT Bombay, Dec. 1975.
5. Refresher Course on System Approach to Design Lab instruments, Mechanical Engineering Department Pb. Engineering College, Chandigarh, March 1978.
6. Short-term course on Digital Signal Processing, Radar and Communication Center, IIT Kharagpur, Dec. 1978.
7. Short-term course on Digital Communication, Indian Institute of Sciences, Banglore, Nov. 1983.
8. Telecommunication skills Workshop, PTC & East West Center for Communication, Honolulu, Hawaii, USA. Jan. 1985.
9. Short-term orientation Course on "AUTO-CAD" Conducted by E.S.P.L. Mohali, June 1988.

**h) SPECIAL LECTURES**

1. Global Mega Media Network (GMN): A broadband Multimedia Communications Service concept and field trials.  
Chairman's Address at 15<sup>th</sup> National Convention of Electronics & Telecommunication Engineers, 12-13, March 2000, JABALPUR.
2. Keynote address at 17<sup>th</sup> Convention of ET Engineers Hyderabad 2001.
3. Presidential Address at 18<sup>th</sup> National Convention of ET Engineers, Cochin, Oct 2002

**i) MEMBERSHIP OF TECHNICAL INSTITUTIONS:**

1. Fellow of Institution of Engineers (India) & Member of State Center Committee. Chairman of Punjab & Chandigarh State Center & Council Member.
2. Fellow of Institution of Electronics & Telecommunication Engineers.
3. Member of Indian Society of Technical Education (M.I.S.T.E).
4. Senior Member of I.E.E.E. (U.S.A.).
5. Member Board of studies in Electronics and Electrical Communication Punjab University, Chandigarh.
6. Member Board of studies in Computer Sciences and Engineering, Punjab University, Chandigarh.
7. Member Board of studies in Electrical Engineering Punjab University, CHANDIGARH.
8. Member of section committee of Engineering Sciences (ISCA) and Recorder for 1985,86 sessions and had close contact with DST Govt. of India. Member of Committee, which drafted the recommendations.
9. Member, Faculty of Electronics Technology, Guru Nanak Dev Univ. Amritsar.

10. Member of Research Degree Committee in Electronics and Electrical Communication, Punjab University, Chandigarh.
11. Member of Research Degree Committee in Electronics Technology, Guru Nanak Dev Univ. AMRITSAR.

**j) PRESENT INTEREST:**

Involved in writing a book on VHDL hardware Description Language. Working in the field of:

- Digital Communications
- Digital Filters
- Optical Communication
- ISDN & LAN
- Information Transfer Technology
- Neural Networks

**k) COUNTRIES VISITED:**

Hong Kong, U.S.A., U.K., West Germany, Libya, Singapore

**l) PUBLICATIONS**

1. Power spectrum spread of M-ary PSK Signals, Proceedings of IEEE (Indian Section) conference at Bombay, 1976.
2. M-ary PSK System in Gaussian noise and interference, Kamal T.S., M.E. Thesis of Univ. of Roorkee, 1975.
3. Seminar on M-ary PSK System, University of Roorkee, Roorkee, July 1975.
4. Analysis of Power Spectrum Spread of M-ary PSK Systems, perturbed by additive white gaussian noise, International journal of Electronics (U.K.) June 1978, Vol.44, No6, pp.653-656.
5. The Impact of Science and technology on society, Symposium on 18.9.1977 at Institution of Engineers (India) Chandigarh Center.
6. Role of Engineering College in the Growth of Electronics Industries in and around Chandigarh on Jan.2, 1978.
7. On Digital Communication, the Annual Journal of Institution of Engineers, Punjab, Haryana, and Chandigarh Center. Chandigarh, Vol. XVI, 1978.
8. Modern Trends in Engineering Education, the Annual Journal of Institution of Engineers Punjab Haryana and Chandigarh Center, Chandigarh, Vol. XVI, 1978.
9. Advantages of M-ary orthogonal signals, the Annual journal of Institution of Engineers, Punjab Haryana Chandigarh Center, Chandigarh, Vol. XVI, and 1978.
10. Audio Control of Cardiac Rhythm, VII All India Symposium on Biomedical Engineering at Hyderabad, June 1978.
11. Electronics and Electrical Communication engineering undergraduate curriculum, Symposium on Education in Electronics and Telecommunication in 1980's IETE, Pune, March 1978.
12. PSK Signal Power Spread produced by TWT amplifier, National Seminar on Low noise Microwave Devices, University of Roorkee, March 1978.
13. Application of Mini-Computer, Proceeding of Seminar on Computer as tool of Technology development Center at Chandigarh, August 1980.
14. Data processing Computer Voice Response System proceeding of seminar on computer as tool of Technology development at Chandigarh.



15. A study of Binary and Block codes Optical PSK systems proceeding of seminar on optical communication Karaikadi, Feb .1978.
16. Digital transmission with special reference to PSK communication, proceedings of Indian Science Congress, Calcutta, Feb 1980.
17. M-ary PSK signal power spectrum spread produced by white Gaussian noise and co-channel Interference in satellite communication systems, proceedings of symposium on communication IETE, May 23-24, 1980, Calcutta.
18. Optical Fiber Transmission System, possible applications, proceedings of symposium on communication IETE, May 23-24, 1980, Calcutta.
19. Satellite communication in presence of Multiple Path Fading, proceeding of Pacific Telecommunication Conference P.T.C., 81, Jan.1981, Honolulu, Hawaii, USA.
20. Intermodulation Distortion in TWT used in satellite communication system, proceedings of IETE, Sept. 1980 Pune.
21. Travelling wave tubes for satellite communication proceedings of Indian Science Congress Association Varanasi, Jan.1981.
22. Evaluation of phase error of PSK Communication System perturbed by travelling wave tube non linearity in satellite communication, proceedings of National conference on application of Microwave at Jodhpur, March 81.
23. Measurement of power spectrum of an M-ary PSK signal perturbed by additive white gaussian noise, proceedings of International Symposium on Microwaves and Communication, Kharagpur, Dec. 1981.
24. Development of Time Division Multiplex Modulator for Bio-Medical signals, proceedings of IEEE (Indian Section) Nov.11-12, 1981, New Delhi.
25. Optical PSK communication system using block codes, proceedings of Indian Science Congress Associations Annual meeting at Mysore, Jan. 1982.
26. Target Detection by Laser Radar in presence of scatterers, proceedings of Tenth symposium on optics at Madras 8-10 Jan. 1982.
27. Interaction between teaching institution and industries proceedings of XI Annual Convention of ISTE, Bangalore Dec 1981.
28. Formation of holes in opaque materials by laser drilling, proceedings of All India Seminar on construction and mining equipment, Chandigarh, Nov.1982
29. Welding by laser radiation, proceedings of All India Seminar on construction and mining equipment, Chandigarh, Nov.1982.
30. Analysis of power spectrum of a laser radar signal perturbed by scatterer, proceedings of A.C.E. of IEEE Jan 1983, Bombay.
31. Performance of lasers Radar under atmospheric effects and scattering, proceeding of Indian Science Congress Association, Tirupati, Jan.1983.
32. A system approach to optimize the assessment and examination system of Punjab University, Chandigarh proceedings International 83, Bermuda Winter Symposium USA, Mar 1983.
33. On Optical PSK Systems, National Conference on Digital Signal Processing, Burla (Orissa) April 8-9, 1983.
34. Optimum Decoding of an Optical PSK System, IEEE Melecon 1983, Athens (Greece), May 24-26, 1983.
35. Optical Communication system an over view, proceedings of Indian Science Congress Association, Jan. 1984, at Ranchi.
36. Error estimation in restoration of shades in faded painting, proceedings of Indian Science Congress Association, Jan 1984.
37. Fine Measurement by Laser Beam, proceedings of National Symposium on Instrumentation NSI-9, at Srinagar, May 84.

38. Model of Optimum Decoder Structure for sub-carrier PSK Optical Communication System, Proceeding of International 1984, AMSE Conference, Minneapolis (USA), Aug.13-17, 1984.
39. Development of Microprocessor based temperature sensor and controller, proceeding of Symposium on Modern Trends in Electronic Instrumentation and Digital Communication System, Warangal August 13-14, 1984.
40. Effects of Fading on Synchronization Signal in Communication Systems, Proceedings of IEEE (India) Conference, Calcutta Dec. 1984.
41. Single frequency semiconductor Laser, Proceeding of Indian Science Congress Association, Lucknow, Jan. 1985.
42. Correlation Techniques for comparing the restored shade of paintings, proceedings of Indian Science Congress Association Lucknow, Jan. 1985.
43. Analysis of Intermodulation noise due to Harmonic Transmission in PSK Communication system using TWT amplifier proceedings of PTC'85 Honolulu Hawaii, USA. Jan. 1985.
44. Application of Microprocessor 8085 interfaced with Laser Transceiver for remote control of a robotic arm proceeding First National Convention of Electronics & Telecommunication Engineers on Digital Communication Dec., 1985, Jabalpur.
45. Technology Transfer in Indian Sub-continent evaluation of the Digital Electronics Proceeding First National Convention of Electronics and Tele-communication Engineers on Digital Communication, Dec. 1985 Jabalpur.
46. Fiber Optical Communication and Integrated Service Digital Networks (ISDN) Proceeding Indian Science Congress Association, Jan.1986, Delhi.
47. Call Processing Package for an 8085 Microprocessor based SPC TDM PAX with conferencing facility. All India Seminar on Modern Communication Trends and Steel Industry, Jan. 1986, Bhilai.
48. Optical Binary and Block Coded Digital System Proceeding of Indian Science Congress association Jan 1986 Delhi.
49. Psychological studies of behavioral aspect of Text Editors. Indian Science Congress Association Jan. 1986 Delhi.
50. Digitization of the Communication Network in India Proceeding of Pacific Telecommunication Conference PTC'86 at Honolulu, Hawaii, Jan.1986, U.S.A.
51. Optical Modem for Computer Interconnect. Proceedings of MONTECH '86, IEEE at Montreal Canada, Sept. 1986.
52. Computer Data Transmission on Optical Communication Model. Proceedings of International Conference on Modeling and Simulation. Williamsburg, Virginia (U.S.A.) Sept. 1986.
53. Fiber Optic Data Links Design Consideration. Proceedings of International Conference on Modeling and Simulation, Naples (Italy) Sept-Oct. 1986.
54. Fiber Optic Digital Intercom for Multi-station Arrangement. Proceedings of IEEE (India Council) Conference at Madras, Dec. 1986.
55. Intelligent Optical Communication Modem for Computer Interconnects. Proceedings of International Conference, Modeling and Simulation, Pomona, California (U.S.A.). Dec.1987.
56. Fault Diagnostic System for TV, Proceedings of International Conference on Modeling and Simulation, Istanbul (Turkey), June 29 - July 1, 1988.
57. Perspective of development of ISDN in INDIA, Proceedings of International Conference on Modeling and Simulation, Rio De Janeiro (BRAZIL) October 13-15,1988.
58. Distance Learning, Proceedings of 1st International Conference on Education & Engineering Kathmandu, NEPAL Nov. 1988.
59. Cost and Tariff Consideration of ISDN in INDIA, Proceedings of PTC'89, Honolulu, Hawaii (USA), January 1989.
60. Computer aided transistor circuit analysis and design using Turbo-C, Proceedings of International Conference on Modeling and Simulation, Dalian (China) Sept.18-20, 1989.

61. Integrated Switching Digital Network hardware production and its use in information and education in developing countries, Proceedings of 1st. World Electronic Media, International Telecommunication Union, Palexpo GENEVA, and October 3-8, 1989.
62. An innovation in simulation and analysis of digital circuits, proceedings of International Conference on Modeling and Simulation, Al-Ain (UAE) January 15-17,1990.
63. A Computer Algorithm for Prediction of Service Area in a Mobile Communication System, Proceedings of IEEE Vehicular Technology Conference ORLANDO, FLORIDA May 1990.
64. Mobile Radio Network Planning for Optimum Spectrum Utilization, proceedings of PTC'91 HONOLULU, Hawaii, USA, Jan'91.
65. Simulation of Process Controller, proceedings of National convention of ET Division IEI & National seminar on "ELECTRONICS IN PROCESS INDUSTRIES", Vadodara Dec 1990.
66. Expert System approach for design and analysis of arithmetic elements, proceedings of National convention of ET Division IEI & National seminar on "ELECTRONICS IN PROCESS INDUSTRIES", Vadodara, and Dec.1990.
67. Computer Aided Design & analysis of Counters, proceedings of 6th International Conference on CAD/CAM Robotics and Factories of the future, 19th-22nd August 1991, London (U.K).
68. Mobile Radio Networks Design Considering Radio Frequency Interference, Proceedings of 1992 IEEE/ASME Joint Rail Road Conference Atlanta, Georgia (U.S.A.) March 31- April 2, 1992.
69. Performance of non-coherent MFSK over wireless frequency non selective slowly Nakagami-m fading channel. National Conference on Communication, NCC'2000, IIT Delhi, 29th -30th, Jan.2000.
70. Performance of Coherent M-AM over Wireless Rician Fading Channel. Proceedings of 15th National Convention of Electronics & Telecommunication Engineers, 12-13 March 2000, JABALPUR (MP).
71. Telemedicine: An Overview. Proceedings of National Convention of Electronics & Telecommunication Engineers, 12-13 March 2000, JABALPUR.
72. On the Analysis of Linear Chirp Compensation of Self-phase Modulation (SPM) in Dispersion Shifted Fibers. Proceedings of National Convention of Electronics & Telecommunication Engineers, 12-13 March 2000, JABALPUR.
73. Performance of Data Communication over Wireless Nakagami-m Fading Channel with Diversity. Proceedings of National Conference on Data Communications Chandigarh April 7-8, 2000.
74. Hand Compression Technique for Communication. Proceedings of National Conference on Data Communications Chandigarh April 7-8, 2000.
75. Performance of Coherent Square MQAM in Wireless Frequency Non-Selective Slowly Fading Channels. Proceedings of 16th IFIPWorld Computer Congress, Beijing, CHINA, 21-25 August 2000.
76. Comparison of Analysis of Self Phase Modulation (SPM) & Cross Phase Modulation (XPM) in Dispersion Shifted Fibers. Proceedings of International Conference on Communications, Computers & Devices ICCCD-2000 at IIT Kharagpur on Dec 14-16, 2000.
77. Effect of Self-Steepening with Dispersion Management for Wavelength Division Multiplexed Optical Soliton System” Proceedings of International Conference on Communications, Computers & Devices “ICCCD-2000 at IIT Kharagpur on Dec 14-16, 2000.
78. Improved Analysis for Four Wave Mixing in an Optical Fiber near Zero-Dispersion Wavelength including Higher-Order Dispersion Terms. Proceedings of International Conference Asia-Pacific Telecom-2000 “APT 2000” at Vellore Engg. College Vellore on Dec 14-15, 2000.

79. Analysis of Four Wave Mixing Phase Matching in an Optical Fiber in Zero –Dispersion Wavelength Region” Proceedings of International Conference on Fiber Optics and Photonics “Photonics-2000” at University of Calcutta, Calcutta on Dec 18-20, 2000.
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