Born

1967

Teaching Assistant at D.E.I., Dayalbagh,

1989

Lecturer at D.E.I., Dayalbagh, Agra.

1991

Sr. Lecturer at D.E.I.

1998

Ph.D. in Electrical Power Systems

Reader at D.E.I., Dayalbagh,

1999

AICTE R&D PROJECT of 9.5 Lakhs

Dec. 2000

Tata Rao medal Award

Jan. 2002

Awarded by Young Scientist Fellowship, DST, MHRD, New

Aug.2005

DR. P.S. Nigam, UP Power Sector Award, IEI, Lucknow

Dec. 2008

Professor, DEI

D.K. CHATURVEDI
Professor
Faculty of Engineering
Dayalbagh Educational Institute
Dayalbagh, Agra, India 282110
URL: http://www.dei.ac.in/FacultyWeb/FacultyOfEngineering/index.htm
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Fax:		**+91 562 280-1226**
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CREDENTIALS

B.Engg.(Elect. Engg.), Govt. Engg. College, Ujjain (M.P.), India 1988
M.Tech.(Engg. Syst. and Management), DEI, Agra (U.P.), India, 1993. Ph. D. (Power Systems), DEI, Agra (U.P.), India, 1998.
Post Doctoral research, University of Calgary, AB, Canada, March 1st, 2002 to Oct. 30, 2002.
Visiting Fellow to University of Calgary, AB, Canada, May 24th, 2005 to June 28, 2005 and May 22nd, 2007 to July 28, 2007.
Name included in Marquis Who"s Who in Engineering and Science in Asia – 2006-2007
Name included in Marquis Who"s Who in Engineering and Science in America 2006-07.
Name included in Marquis Who"s Who in World – 2006-2007.

Member Professional Bodies

Fellow of Institution of Engineers (India) (F-111073-6)
Member of Institution of Electrical and Electronics Engineering, USA, (M-012008-337) Member of Institution of Electrical Engineers, U.K. (M-84633955)
Member of Institution of engineering and Technology, U.K. (M-84633955) Member of Indian society of Technical Education, Delhi (LM-6987) Member of Indian Society of Continuing Education (LM-0082)
Member of PRAACHI LAI, Agra (LM/379).
Member of Aeronautical Society of India (M-18117) Member of System Society of India (LM – 27088)
Member of Association for Transport development in India

AWARDS

1. Better Opportunities for Young Scientists in Chosen Areas of Science and Technology (BOYSCAST) Fellowship awarded by Department of Science and Technology (DST), Government of India for Post Doctorate Research at Electrical and Computer Engineering Department, University of Calgary, Canada, from 1st March 2002 to 31st October 2002, in the area of Machine intelligence and sub-area of Generalized Neuron development and Its Applications to Power System Stabilizer. During this period he submitted eight research papers in different International Journals. He also participated in the 34th North American Power Symposium held on Oct. 14-15, 2002 at Arizona State University, Tempe, Phoenix, USA. He also visited different Labs at ASU. Prof. O.P.Malik at university of Calgary, AB, Canada evaluated the performance 10 at a scale of 1 to 10.
2. Tata Rao Medal Award in The XV Indian Engineering Congress at Hyderabad on Dec. 23, 2001, for the paper entitled *"Development of Fuzzy Simulator for DC Machine Modeling"*, published in The Institution of Engineers (India), Electrical, Vol. 80, Aug. 1999, pp. 53-54 authored by Chaturvedi, D.K., Satsangi, P.S. and P.K. Kalra.

3. Dr. P.S. Nigam U.P. State Power Sector Award – 2005 for the contribution in Research and Development in electrical technology during last 5 years and the efforts have greatly benefited the state of U.P. The Institution of Engineers (India) presented R & D award and a Cash prize of Rs. 2,500/- in the 85th Annual General Meeting, U.P. State Centre, Lucknow on Nov. 13th, 2005 on the paper „Neuro-Fuzzy Power System Stablizer". A citation is also presented on this occasion.

Prof. Chaturvedi receiving award from Prof. D.S. Chauhan, Director, IET, Luknow, 2005.

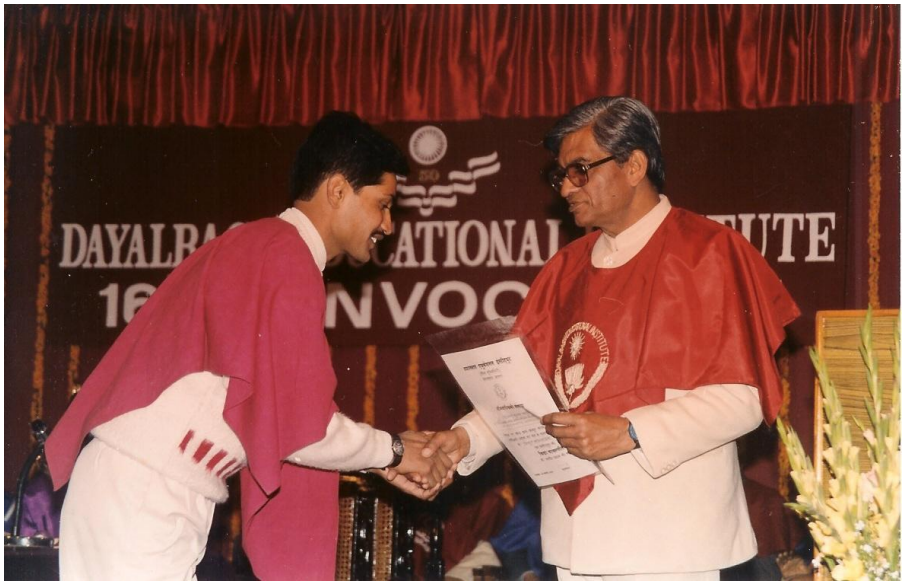
4. The Institution of Engineers (India) U.P. State Centre presented the Institution prize of Rs. 2000/- and a certificate for best technical paper presented in 85th Annual General Meeting, U.P. State Centre, Lucknow on Nov. 13th, 2005. The topic of the paper was „Experimental Studies of a generalized Neuron Based Adaptive Power System Stabilizer".
5. Dr. P.S. Nigam U.P. State Power Sector Award – 2007 for the contribution in Research and Development in electrical technology during last 5 years and the efforts have greatly benefited the state of U.P. The Institution of Engineers (India) presented R & D award and a Cash prize of Rs. 2,500/- in the 87th Annual General Meeting, U.P. State Centre, Lucknow on Oct 28th, 2007 on the paper „**Adaptive Polar Fuzzy Power System Stabilizer for Multi-machine Environment**".
6. Massuadi Lal Memorial Award in the 87th Annual General Meeting of The institution of Engineers (India), U.P. State Centre, Lucknow on Oct 28th, 2007 on the paper titled, „**GA-Fuzzy Technique and its application**". This award includes a cash prize of Rs. 2000/-.

Ptof. Chaturvedi receiving Award at Luknow, 2007.

7. Aerial Delivery Research and Development Establishments (ADRDE) DRDO Lab recognized Dayalbagh Educational Institute, Dayalbagh for academic support to ADRDE (DRDO), in its research & Development projects. Prof. Chaturvedi has been conferred the Academic Excellence Award by Director, Aerial Delivery Research and Development Establishments (ADRDE) DRDO Lab at Agra for his contributions to ADRDE.

8. President's medal for securing highest marks in all postgraduate classes in XII Convocation of D.E.I. (Deemed University), Dayalbagh, Agra in 1993.

9. Director's medal for securing highest marks in M.Tech. Engineering Systems and Managements), Faculty of Engineering, D.E.I., (Deemed University), Dayalbagh, Agra in 1993.



Prof. Chaturvedi Receing Ph.D. Degree in DEI Convocation 1997.

10.. Best paper award in the year 1993-94 by The Institution of Engineers (India) for the paper entitled "Innovative Approach for Predicting the performance Characteristics of Synchronous Generators" published in J. of The Institution of Engineers (India), El, Vol. 74, Nov. 1993, pp. 109 - 113 authored by Chaturvedi, D.K., and Satsangi, P.S.

11. Best Paper award in the session V *Stability, Security and Reliability* at National conference on *Recent trends on Power Management* held at Department of Electrical Engineering, Jamia Millia Islamia University, New Delhi, on August 16-17, 2003.

12. **D**eepak Ohary Invited to visit U.K. and Cambridge university while going to Canada in the month of May 2007.

13. **Dr. Nirmal Kumar, Dept. of** Electrical and Computer Engineering, university of Auckland, New zee land **invited for research collaboration** and visit his lab at Univ. of Auckland.

14. **Prof. Dr. H. Rock** from Dept. of Electrical Engineering, Christian Albrechts University zu Kiel, Germani **invited for delivering a talk on Soft Computing and Its Applications** from May 28 – May 31, 2007.

15. Dr. D.K. Chaturvedi again received an Invitation from Prof. O.P. Malik university of Calgary, Canada from May May 07 to July 07 for work on our on-going research in the area of Power System Control.

16. D.K. Chaturvedi got an Invitation from Prof. O.P. Malik to work on Intelligent Controller at Department of Electrical Engineering, Faculty of Engineering, University of Calgary, Alberta, Canada in the summer vacation from 23rd May 2005 to 28 June 2005. He worked on Adaptive Neuro - Fuzzy power System Stabilizer. He did simulation studies on single machine infinite bus power system, implemented the proposed stabilizer and perform experimental studies on a physical model of a power system in the power system research laboratory in the department of electrical and computer engineering at University of Calgary, Alberta, Canada. He communicated two IEEE papers out of it.
Prof. O.P. Malik commented that "it was very good performance considering the short duration that Dr.D.K Chaturvedi was here.

17. Guest of Honor in the Inaugural function of *InfoUtasva* (Information Technology Week) at Faculty of Engineering & Technology, Raja Balwant Singh College, Bichpuri, Agra (U.P.) on 21.11.2000.

18. Prof. D.K. Chaturvedi is co-opted as external member of Board of Studies of Electrical Engineering Department, Jamia Millia Islamia, New Delhi on 8th Oct. 2009 for a term of three year.

19. Prof. D.K. Chaturvedi has been selected as editorial board member for Int. journal on Energy and Power Engineering (EPE, ISSN Print 1949-243x, ISSN online 1947-3818), published by Scientific Research, USA.

20. Prof. Chaturvedi was appointed as external member of selection committee for appointment of professors in Sharad Group of colleges at Hundustan College of Science and Technology, Farah, Mathura on Jan 13-14, 2010.

21. Prof. Chaturvedi (Convener) and his team organized a Two Day National Workshop on LabVIEW, Matlab and Their Applications" at Faculty of engineering, D.E.I., Dayalbagh Agra, 25-26 March 2011.

22. **Prof. Chaturvedi invited in National Technical competition "Sukrit" – 2011 as Judge** in National level SGI Technical Fest **Sukrut** in Technical paper presentation and Engg. Model competition **organized by B.M.A.S. Engg.College, Keetham, Agra on 3-March- 2011.**

23. Aerial Delivery Research and Development Establishments (ADRDE) DRDO Lab recognized Dayalbag h Educational Institute, Dayalbagh for academic support to ADRDE (DRDO), in its research & Development projects. Prof. Chaturvedi has been conferred the Academic Excellence Award by Director, Aerial Delivery Research and Development Establishments (ADRDE) DRDO Lab at Agra for his contributions to ADRDE.

24. Prof. Chaturvedi successfully completed two terms as council member of Aeronautical society of India, Agra Chapter, ADRDE, Agra in May 2011.

R&D PROJECTS

1. AICTE R & D Project, *Development of Improved Generalized Neural Network Model for Power System Applications*, (F. No. 8018/RDII/BOR/R&D (219)/99-2000), Rs.9.5 Lakhs, 2-Years (31.3.1999- 31-3-2002). (completed)

2. ADRDE consultancy Project Modeling and Simulation of Stanchion system of Aircraft Arrester Barrier System from July 2004 – Dec. 2004, Rs. 3.5 Lakhs, 6-months from ADRDE, Agra Cantt. (completed).

3. A UGC project of Rs. 10.162 lacs from University Grant Commission, Delhi for the duration of two years from 1/5/09 to 31/3/ 2011 on the topic „Parameter Estimation of alternator using Generalized Neural Networks". F.No. 36-69/2008. . (completed).

4. Prof. D.K. Chaturvedi, received a project of Rs. 3.2 Lacs from All India Council for Technical Educational (AICTE) Delhi for the duration of three years from 1/5/09 to 31/3/ 2012 on the topic „Parameters Estimation of alternator using Soft Computing Techniques". . (completed).

5. ADRDE Consultancy Project Automatic controlled voltage source for Aerostat, from March 2008 – Aug. 2008, Rs. 9.95 Lakhs, 1yr from ADRDE, Agra Cantt. . (completed).

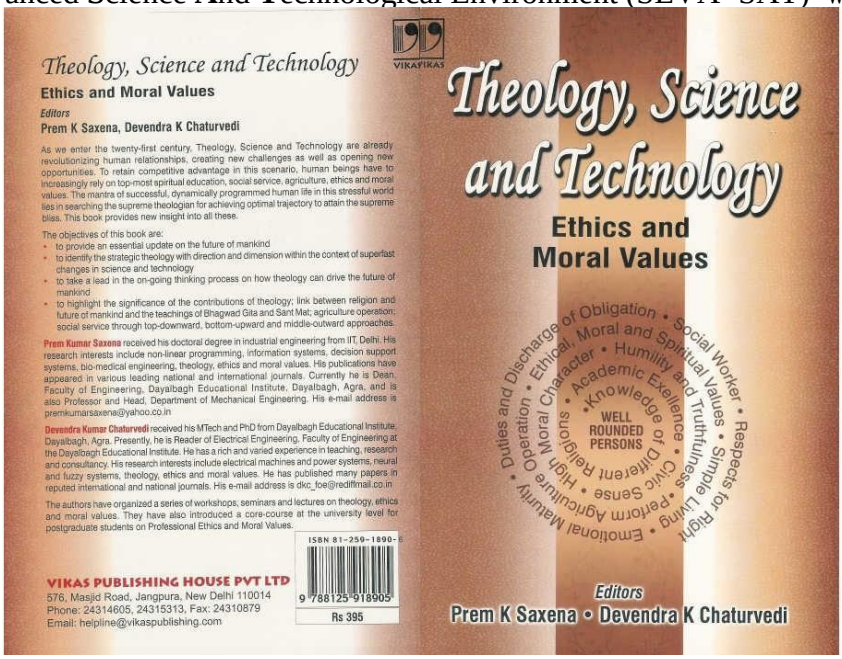
6. Prof. Chaturvedi is involved in National Mission of Virtual Labs. He had received a Project of Rs. 80.0 Lacs from MHRD, Delhi for the development of Virtual Power Lab. The duration of the project is 2-years (1-April- 2010 – 31st March – 2012).

Book Published / Articles in Books

1. **Theology, Science and Technology: Ethics and Moral Values**, (Ed. P.K. Saxena and D.K. Chaturvedi), Vikas Publishing House Pvt. Ltd., ISBN 81-259-1890-6, New Delhi, 2005.

About Book

The book begins with the theme contribution „search of **S**piritual, **E**thical and moral **V**alues in **A**dvanced **S**cience **A**nd **T**echnological Environment (SEVA- SAT)" which puts into coverage focus.



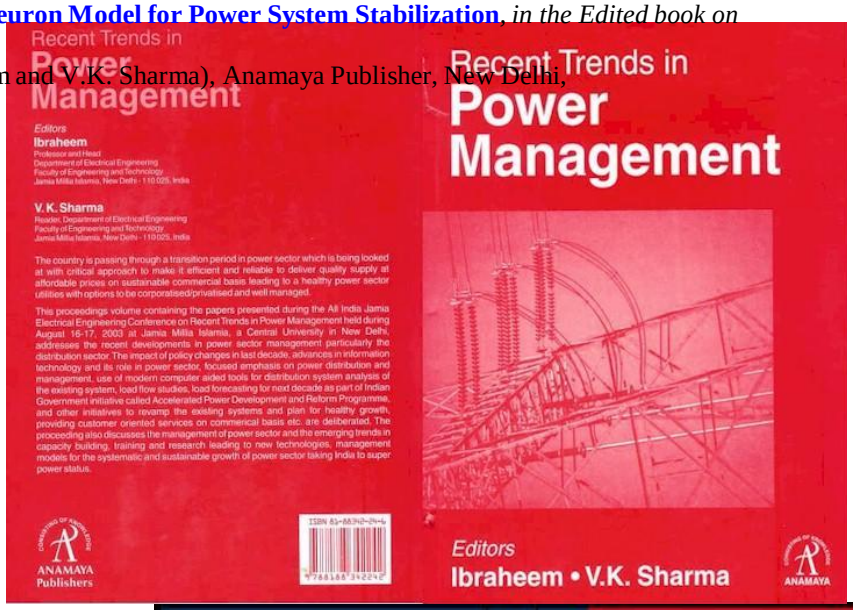
The objectives of the book are:

- to provide an essential update on the Future of Mankind
- to identify the Strategic Theology with direction and dimension within the context of the fast Technological Changes

to ▌ take a lead in the on-going thinking process on how Theology can drive the Future of mankind

to highlight the significance of the contributions of Theology; link between Religion and Future of Mankind and the Teachings of Bhagwad Gita and Sant Mat; Agriculture Operation; Social Service through top–down, bottom–up and middle–out approach.

2. Chapter on An Artificial New Neuron Model for Power System Stabilization, *in the Edited book on* Recent Trends in Power System Managements (Eds. Ibraheem and V.K. Sharma), Anamaya Publisher, New Delhi, 2003, ISBN 81-88342-24-6.



3. **Soft Computing and Its Application in electrical Engineering**", Springer – Verlag, Germany, 2008, ISBN 978-3-540-77480-8.

About the book –

Intuitive consciousness/ wisdom is also one of the frontline areas in soft computing, which has to be always cultivated by meditation. This book is an introduction to some new fields in soft computing with its principal components of fuzzy logic, ANN and EA and it is hoped that it would be quite useful to study the fundamental concepts on these topics for the pursuit of allied research. The approach in this book is to provide an understanding of the soft computing field, to work through soft computing using examples, to integrate pseudo - code operational summaries and Matlab codes, to present computer simulation, to include real world applications and to highlight the distinctive work of human consciousness in machine.

This book begins with the introduction of soft computing and is divided into four parts.

The first part deals with the historical developments of neural science, background of ANN and their applications. Also new generalized neuron (GN) model had been discussed and tested on various bench mark problems. GN is used for various applications such as machines modeling, electrical load forecasting system, aircraft landing control system, load frequency controller, and power system stabilization problem.

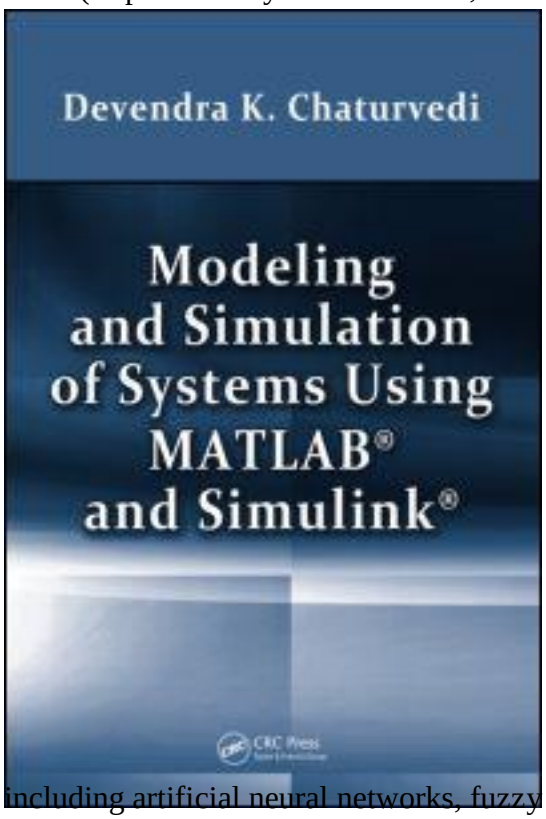
In the second part, the book concentrates on the introduction of fuzzy logic concepts and its applications in modeling of electrical machines and load forecasting problems. The most difficult and crucial part of fuzzy system development is the knowledge acquisition. System dynamics technique (causal relationships) helps in the knowledge acquisition and representation of it. The integrated approach of systems dynamics technique and fuzzy systems has been used for socio-economic systems like HIV/AIDS population forecasting problem.

The third part lays the foundation for genetic algorithms (GA) and its variant.

The last part of this book covers the synergism between different components of soft computing technology such as GA, fuzzy systems, and ANN.

Dr. Chaturvedi deserves congratulations for bringing out the nice piece of Research monograph on soft computing techniques and its applications in electrical engineering
2008. XXII, 612 p. 320 illus. (Studies in Computational Intelligence, Vol. 103) Hardcover

4. Modeling and Simulation of Systems Using MATLAB® and Simulink® from CRC Press (Imprint of Taylor and Francis, U.K. Dec. 2009.



The book provides comprehensive, state-of- the-art coverage of all the important aspects of modeling and simulating both physical and conceptual systems. Various real-life examples show how simulation plays a key role in understanding real-world systems. The author also explains how to effectively use MATLAB and Simulink software to successfully apply the modeling and simulation techniques presented.

After introducing the underlying philosophy of systems, the book offers step-by-step procedures for modeling different types of systems using modeling techniques, such as the graph-theoretic approach, interpretive structural modeling, and system dynamics modeling. It then explores how simulation evolved from pre-computer days into the current science of today. The text also presents modern soft computing techniques, including artificial neural networks, fuzzy systems, and genetic algorithms, for modeling and simulating complex and nonlinear systems. The final chapter addresses discrete systems modeling.

Preparing both undergraduate and graduate students for advanced modeling and simulation courses, this text helps them carry out effective simulation studies. In addition, graduate students should be able to comprehend and conduct simulation research after completing this book.

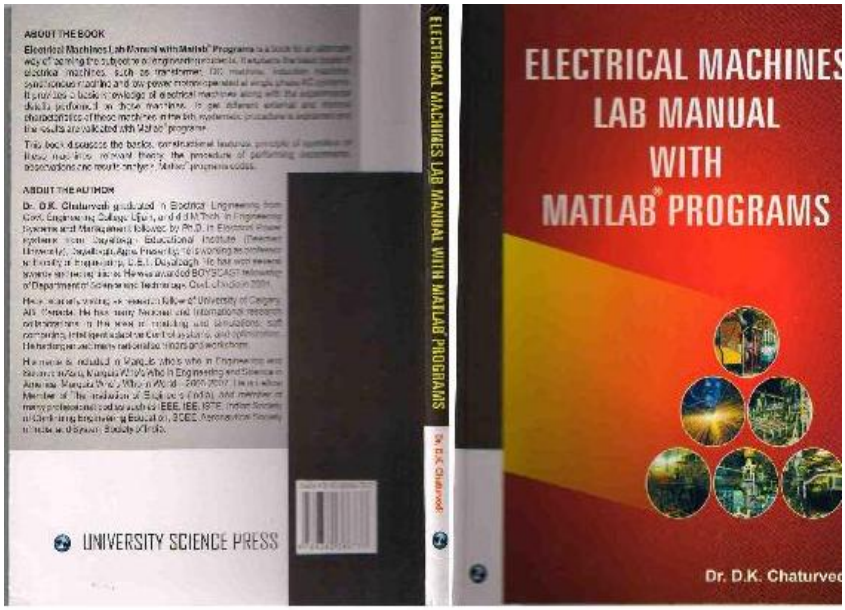
Features

1. Provides a basic understanding of systems and the modeling and simulation of systems
2. Presents a step-by-step procedure for modeling using top-down, bottom- up, and middle-out approaches
3. Develops models for complex systems and reduces their order so they can be applied effectively in online applications
4. Uses soft computing techniques for modeling nonlinear, ill-defined, and complex systems
5. Contains extensive references and related literature for further study
6. Includes a CD-ROM with simulation code in MATLAB and Simulink, enabling quick and useful insight into real-world systems

5. Solution manual of Book entitled 'Modeling and Simulation of Systems Using Matlab$^{@}$/Simulink$^{@}$', CRC Press 2011.

6. Electrical machines Lab Manual with Matlab Programs, University Press, New Delhi, May2010.

Electrical machines Lab manual with Matlab® programs is a book for an alternate way of learning the subject. It explains the basic types of electrical machines, such as



transformer, DC machine, induction machine, synchronous machine and low-power motors operated at single phase AC systems. It provides a basic knowledge of electrical machines along with the experimental details performed on these machines, useful for further studies and practice. To get different external and internal characteristics of these machines in the lab, systematic procedure is explained and the results are validated with Matlab® programs.

This book discusses the basics, structure and steady state operating behavior, principle of operation of these machines, relevant theory, the procedure of performing experiments, observations and results analysis, Matlab® program codes and finally, to check the understanding multiple choice questions are also provided.

7. Soami P. Saxena, D.K. Chaturvedi, Anurag Gupta, Sonam Bhadauriya**, Dynamic System Modeling of stock market volatility Via Fuzzy and Neuro-Fuzzy Apparoach: Impact of Real Economic Indicators in Indian Stock Market.** Chapter contributed in Book Mechanical Engineering Emerging Vistas, Edited by B.D. Gupta, R.K Upadhyay, R.P. Singh, Jagvir Singh, Published from Narosa Publisher, Delhi, 2011.

Collaborations

Prof. O.P. Malik, Dept. of Electrical and Computer Engineering, University of Calgary, Canada Dr. Nirmal Kumar, Dept. of Electrical and Computer Engineering, Auckland University, Auckland, New Zeland.
Prof. H. Rock, Dept. of electrical Engineering, Christian-Albrechts University zu Kiel, Germany.
Prof. Ibraheem, Dept. Of Electrical Engineering, Jamia Millia Islamia, Delhi
Prof. P. K. Kalra, Electrical Engineering, I.I.T. Kanpur
Dr. Vijay Kumar, Saran Ashram Hospital, Agra
Mr. R.K. Sharma, Aerial Delivery and Research Establishment, DRDO lab Agra. Mr. R.P. Garg, President, Premier Trading Corporation, Meerut.

Consultancy projects

1. The president of Premier Trading Corporation, Meerut, U.P. had requested to offer consultancy in machine control and experimentation. They want some help in software development for interfacing of computer with DC and AC machine for study of various load characteristics and calculating machine parameters.
2. In the aerostat, large number of devices is installed for stabilization of aerostat and collecting various types of information from the ground and sky. These devices need constant voltage power supply, which is supplied through a cable whose length is 1.5 km. Some portion of this cable is wound on the winch drum and some portion is hanging in air. The portion which is wound on the drum generates more heat due to lack of heat dissipation. Due to this the resistance increases and adversely affects the insulation of cable. Under different loading conditions at the aerostat the voltage drop varies considerably. Some of these devices are highly voltage sensitive and hence by switching on other devices may cause problem. Hence, under heavy loading conditions at the aerostat the voltage drop in the power cable is also considerably high. It needs some automatic control to maintain the constant voltage at the aerostat end. Objective is to maintain the desired voltage at the aerostat to operate various devices under different loading conditions.

REFEREE

1. Reviewed an ADRDE Project on

i. Lightning Protection system of Akashdeep on 9-8-08.

ii. Controlled Aerial Delivery System (CADS) for 1 Ton and 3 Ton at ADRDE, Agra DRDO, Govt. of India on 7-Jan-09.

2. Union Public Service Commission (UPSC), Govt. of India, New Delhi.

3. The name was included in the review committee of International IEEE conference on Power System Analysis, Control and Optimization. (PSACO- 2008), 13th -15th March 2008. He reviewed four papers for this conference.

4. Dr. Stefano Squartini, Polytechnic University of Marche, Italy invited Dr. D.K. Chaturvedi as reviewer of IEEE World Congress on Computational Intelligence (WCCI 2008) held at The Chinese University of Hong Kong at June 1-6 (Sunday - Friday), 2008. He reviewed two papers for this conference.

i. WCCI – 2008, NN096, Mimo Beam Forming with Neural Network Channel Prediction Trained by a Novel Pso-EA- despo Algorithm.

ii. Australian Institute of Physics (AIP), 18th National Congress incorporating the 27th AINSE Plasma Science Conference, 30th Nov. to 5th Dec. 2008, Adelaide, South Australia.

5. International conference on (PSACO) - 2008

i. Gate Controlled Series Capacitor (GCSC) For Power Stability

ii. Simulation and Comparison of Closed Loop Controlled UPFC and IPFC Systems

6. IEEE Trans. on Neural Networks

i. TNN – 2007-P-0093, Neural Network of Maximum Sensibility, 02-Aug. 2007.

ii.

7. IEEE Trans. on Power Systems

i. TPWRS- 001-2002, A research on Short Term Load Forecasting Problem Applying Improved Grey Dynamic Model.

ii. TPWRS- 00165-2006 title, "Short Term Load Forecasting using Gray Dynamics – a relatively new approach to this problem".

iii. TPWRS- 00121-2007 title, "Comparison between Statistical and Artificial Neural Network based Short Term Load Forecasting Techniques".

iv. TPWRD – 00279-2007 title, „Entropy Base ARX models for Short Term Wind Power Forecasting" , Duran Mario J.

v. TPWRD - -2008, "Short Term Electricity Price Forecasting Using Data Mining", 22nd April 2008, Tomonobu Snjyu, S. Chakraborty, Toshiba Funabashi.

vi. TPWRD – 00368-2008, The Peak Load Forecasting Afterwards Its Intensive Reduction. 6th June 2008, Slobodan M.M., Vladimir M.S.

vii. IEEE Power and Engineering Society (PES) no. TPWRD-00530-2009, Absolute and Derivative Values for Short term Load Forecasting", S. Bet, de Olivera, Wazlawick, Raul.

viii. IEEE Trans. On Power Delivery of Power and Engineering Society (PES) no. TPWRD - 00599-2009, Application of Artificial Bee Colony Algorithm to fault Section of Distribution System ", Huang, Shyh-Jier, Lie, Xian Zong.

ix. IEEE Trans. On System, Man and Cybernetics- Part : System and Humans, paper no. SMCA – 11-01-0042.

x. IEEE Transaction on Smart Grid paper no. TSG-00221-2011.

Four papers of IEEE International Conference on Swarm , Evolutionary and Memetic Computing (SEMCCO) – 2011.

8. IEE South Africa section

i. On the Prevention of Pole – Zero Cancellation in H- nfinite Power System Controller Design: A Comparison, K.A. Folly.:

ii.

9. IET Generation, Transmission & Distribution:

i. GTD – 2005 – 120, Power System Reliable Stabilization with actuator Failure, , 02 June 2005.

ii. GTD-2007-0134, Neural Network Control of the StatCom in Multimachine Power Systems., 28-Mar-
2007

iii. GTD – 2007- 0479, Parameter tuning of Power System Stabilizers using Improved Ant Direction Hybrid Differential Evolution, , Nov. 2007.

iv. GTD-2008-0216, Application of Support – vector Machines to Power Systems Relaying, 01-May

2008.
v. GTD - Self Adaptive differential evolution based Security Constrained Optimal Power Flow,
vi. GTD -Neural Networks For Adaptive and Optimal Control Co-ordination of PSSs and FACTS Devices
in MultiMachine Power Systems, .
vii. GTD-2008-315, An Approach of Economic Power Dispatch in the Practical Power System in China. 02-July-2008.
viii. GTD – 2008 – 0381, Damping Inter-area Modes of Oscillation Using an Adaptive Fuzzy Power System Stabilizer.
ix. GTD-2008-0594, Tie line Power Flow Control in Two Area Power System Using Fuzzy Logic Controller, K.Manickavasagam , P. Subbaraj , Dec. 08.
x. GTD-2009-0150, Damping Inter-Area Modes of Oscillation Using an Adaptive Fuzzy Power System Stabilizer, T. Hussein, M.S. Saad, A.L. Elshafei, A. Bahgat , March. 09.
xi. GTD-2009-0023.R1, Single Network Adaptive Critic Design for Power System Stabilizers, by Sen, I., Gurrala G., Padhi, R. April 09.
xii. GTD-2009-0150, Damping Inter-area Modes of Oscillation Using an Adaptive Fuzzy Power Sysm Stabilizr, T. Hussein, M.S. Saad, A.L. Elshafei, A. Bahgat , June. 09.
xiii. IEE Electronics Letter, U.K.,Paper No. ELL-2009-2251.R1, 2009.

10. Int. J. on Information Sciences – Elsevier
    i. INS-D-05-1093, Stochastic Adaptive One –Strip ahead Controller Based On Weighted Least Square Algorithms, 07-Dec-2005.
11. Int. Journal of Association of Modeling and Simulation (AMSE), France
    i. 02-180-2D "Mathematical model of Population Distribution of within the Christian Community in Nigeria". 1999.
    ii. 04-340-2D, Health Impact Optimization model … eradication Programme (NIGEP).
    iii.
5. Int. J. of Computers and Electrical Engineering (IJCEE), USA, 2002
    iv.02-NM-782, A Noval Approach Towards Routing in ATM Networks Using Evolvable Hardware".
12. Int. J. on Neural Systems (IJNS), World Scientific Publishing Company
    i. IJNS/06/080, Adaptive Auto landing Controller Design For Transport Jet Aitcraft in Presence of Strong Wind Shear
    ii. IJNS / Automatic Target Recognition of Aircrafts Using Neural Networks.
13. Int. J. on Emerging Electric Power systems (IJEEPS) , Barkley Press
    i. Research on Optimal Power Flow Problem with Voltage Stability Constraints, (Manuscript 1945).
    ii.Estimation of Real – Time Equivalent of Power System for Distribution System, (Manuscript 1827)
    iii.

14. Int. J. of Electrical Power and Energy Systems (IJEPES), Elsevier Science Ltd..
    i. E2866, „Applications of a New Multi-Variable Feedback Linearization Method for Improvement of Power System Transient Stability" -, Jan 27, 2006
    ii. E2846Modified GA – based Optimization design of Fuzzy governor Power System Stabilizer for Hydro –generator unit, , April 2006.
    iii. E2817, "Robust Controller For Synchronous Generator With Local Load Via VSC", 9-Feb-2007.
    iv. E2835, "Studies of the Improvement of Probabilistic PSSs by Using the Single Neuron Model", 15-Feb-2006.

15. International Journal on Control, Automation and Systems (IJCAS), Korea,
    i. 07-02-R038, Non-linear Adaptive Decentralized Stabilization Control for Multimachine Power Systems. Shan Ying, S.S. Lee and J.K. Park, April 2008.

16. Journal of Engineering and Technology Research (JETR) published by Academic Press.

17. Int. Journal on Computer Engineering Research, Feb. 2011, paper no. IJCER-11-006.

18. Journal of Civil Engineering and Construction Technology, Feb. 2011, Paper no. JCECT-10-041.

19. International journal of civil Engineering and Construction Technology, Paper no.JCECT-11-027 published by Academic Press.

20. IEEE International Conference on Swarm , Evolutionary and Memetic Computing (SEMCCO) – 2011reveiwed four papers of no. SEMCCO – 164, 165, 188, 192- 2011.

21. ICTACT Journal on Soft Computing - paper no. ICTACT_Sp02.

22. R & D project of Department of Science and Technology (DST), Ministry of Human Resource Development, Delhi, 1998-99.
23. The All India Jamia Electrical Engineering Conference on Recent Trends in Power Managements, August 16-17, 2003 held at Faculty of Engineering, Jamia Millia Islamia (JMI), New Delhi.
24. National Systems Conference (NSC-93), Indian Institute of Technology, Kanpur, 1993.

i. International Conference on Applied Research and National Systems Conference, (ASR-NSC) – 2009 organized by System Society of India and DEI, Dayalbagh, Agra.

25. Ph. D. Thesis of Jawaharlal Nehru University (JNU), Delhi, 2003.
26. Ph.D. Thesis of Jamia Millia Islamia, New Delhi, 2003, 2005, 2007.
    i. Sub-optimal automatic Generation Control Strategies in Interconnected Power System with AC/DC Links, April 2008.

27. M.Tech. Thesis of Faculty of Engineering, Jamia Millia Islamia, New Delhi.
28. M.Tech. Thesis of Madhav Institute of Technology and Science (MITS).
29. B.Tech and M.Tech. Project at Aligarh Muslim University (AMU), Aligarh.

30. Prof. D.K. Chaturvedi Reviewed papers for IEE Generation, Transmission & Distribution, U.K., IEE Electronics Letter, U.K., IEEE Trans. On Power Delivery of Power and Engineering Society (PES), USA, for International Conference on Applied Research and National Systems Conference, (ASR-NSC) – 2009 organized by System Society of India and DEI, Dayalbagh, Agra.
31. Prof. Chaturvedi reviewed a paper for Proceedings of Generation, Transmission and Distribution, IEE, U.K. and two papers (no. 134 and 125) for International conference on Swarm, Evolutionary and Memetic Computing (SEMCCO) organized by SRM University, Chennai, India, Dec. 16-18, 2010.
32. Prof. Chaturvedi reviewed a paper for IEEE Transaction on Power Delivery. The paper No. is TPWRD – 00756-2010 dated 01-oct-2010.

33. Prof. Chaturvedi reviewed the papers for following journals:
    a. Int. Journal on Computer Engineering Research, Feb. 2011, paper no. IJCER-11-006.
    b. Journal of Civil Engineering and Construction Technology, Feb. 2011, Paper no. JCECT-10-041
    c. IEEE Trans. On System, Man and Cybernetics- Part : System and Humans, paper no. SMCA – 11-01-0042.
    d. IASTED Int. Conf. Paper No. 143, Calgary, Canada.

SPECIAL ACHIEVEMENT

1. Chief Guest in Inaugural Function of students forum Zonal Electrical Engineers and Technocrats Association (ZEETA), Hindustan College of Science and Technology, Farah, Mathura, on Oct. 18, 2008.

2. Co-chairman of Two Sessions i.Instrumentation and ii.Aerospace Engineering in National

Systems Conference hold at D.E.I., Dayalbagh, Agra Jan. 1995.

3. Co-Chairman of a Session on Control Systems in National Conf. On Applied Systems Engineering and Soft Computing Organized by D.E.I., Dayalbagh, Agra, March 4-5, 2000.

4. Member of Recruitment Committee for the Selection of Lecturers for Engineering at Dr. Bhim Rao Amedkar University, Agra, 2001, 2003, 2005.

5. Presiding and Judge the paper presentation session at National Level Workshop on "Leadership Training and personality development" at Faculty of engineering & Technology, Raja Balwant Singh College, Bichpuri, Agra (U.P.) on 26 & 27th May 2001.
6. Chairman in Technical Session on Emerging Technologies at 3rd All India Technical Festival CEREBRUM 2003, Anand Engineering College, Agra, 7th & 8th March 2003.

7. Chairman of a Technical session Simulation and Analysis of Power Components in National conference on Recent trends in Power systems at Faculty of Engineering, Jamia Millia Islamia, New Delhi during 16-17 August, 2003.

8. Member Selection Committee for selecting DRDO officers and personnel for Cash Award, date 17th Jan. 2004 at Arial Delivery Research and Development Establishment (ADRDE), Agra Cantt.

9. Chairman Course Auditing Committee (independent assessment of the quality and course coverage) in Anand Engineering College on 24 Setp. 2004.

10. Member Lecturer Selection Committee at Faculty of Engineering for Lecturer, Agra College, Dr. B.R. Ambedkar University, Agra, 26 April 2005.

11. Member Moderation Committee at Jamia Milia Islami, Delhi.

12. Member Academic Council of the Dayalbagh Educational Institute, Dayalbagh, Agra for one- year w.e.f 1.7.2000.

13. Member Board of Studies at Faculty of Engineering, D.E.I. Dayalbagh, Agra from 1998-99.

14. IEE U.K. gave free full membership on Sept. 2005 for the review work done for the The IEE Proceedings and Electronic Letter. They also offered free access to IEE library and e-services.
15. He has been chosen as a candidate for inclusion in 2006-07 (9th Edition) of Who" s Who in Science and Engineering Published Marquis Who" sWho from 562, Central Avenue, New Providence, NJ 07974, USA for the research work done in last five years.

16. Member of Associate Professor Selection Committee at Faculty of Engineering and Technology, Agra College, Dr. B.R. Ambedkar University, Agra, 30 Jan. 2006.
17. Core Member of Agra Science Forum (ASF) formed with the association of Aerial Delivery Research & Development Establishment, Agra a DRDO laboratory.

18. Selected for Bharat Jyoti Award- 2006
19. Biographical profile had been published in the First Edition of Who" s Who in Asia – 2007 from 890 Moutain Avenue, Suite 4, New Providence, NJ, New York, USA for the testament to hard work and dedication. Marquis Who" s Who in Asia publishes the biographies of men and women across all fields of endeavor, because of the reference value of someone" s outstanding achievements.
20. Biography had been published in Who" s Who in Science and Engineering – 2007 from 890 Moutain Avenue, Suite 4, New Providence, NJ, New York, USA for the outstanding achievements in the field of Science and Engineering.
21. Member Library Committee / director" s Nominee for the term 2005-2007.
22. Member, Executive Committee, System Society of India, D.E.I. Chapter, Agra.
23. External Expert, Selection committee of Scientist „B" at Recruitment and Assessment Council (RAC), DRDO, Timarpur, Delhi.

24. Convener, Faculty Training and Placement Cell, D.E.I.
25. Advisor, Students" Chapter (Elect. Engg.)

26. Proctor, U.G. Students.

27. Member, Editorial Board of The Open Electrical and Electronics Engineering Journal, Bentham Science Journal, Feb. 2007.

28. External Expert in the Selection committee for Lecturer and Associate Professor at BAMS college of Engineering, Sharada Group, Mathura Road, Agra on 8.3.07.

29. Member selection committee and UPTU nominee at Hindustan College of Science and Technology, Farah, Mathura on 18th April 2008.

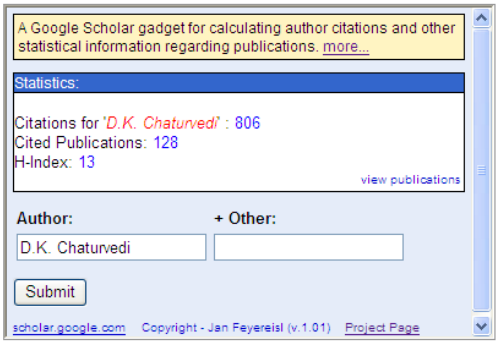
30. Appointed as external expert of assessment board of DRDO, Govt. of India to promote technical officers of DMSDRDE, Kanpur on 29th June 2009.

31. Prof. D.K. Chaturvedi is co-opted as external member of Board of Studies of Electrical Engineering Department, Jamia Millia Islamia, New Delhi on 8th Oct. 2009 for a term of three year.
32. Prof. Chaturvedi was appointed as external expert member of selection committee for appointment of professors in the discipline of Electrical and Electronics Engineering in Sharad Group of colleges at Hundustan College of Science and Technology, Farah, Mathura on Jan 13-14, 2010.
33. Prof. Chaturvedi was selected as member of conference secretariat in International conference on Environmental Education: A pledge to Save Earth (ICEED), organized by Faculty of Education, D.E.I. (Deemed Univ.), Dayalbagh, Agra, 2-4- July – 2010. He was also a member of panelist in Panel discussion on the theme of Environmental Crisis in this conference
33. Prof. D.K. Chaturvedi is selected as technical committee members for 2010-2011 of The International Association of Science and Technology for Development (IASTED), which is a non-profit organization devoted to promoting economic and cultural advancement. Established in 1977, IASTED organizes multidisciplinary conferences for academics and professionals, mainly in the fields of engineering, science, and education. IASTED holds conferences and courses in both industrialized and developing nations. He reviewed 3-papers for Int. Conf. on Modeling and Simulation (MS'10), Banff, Canada.
34. Prof. Chaturvedi wrote a Solution manual of Book entitled 'Modeling and Simulation of Systems Using Matlab@/Simulink@', CRC Press, New York, Jan. 2011
35. Prof. Chaturvedi invited in National Technical competition "Sukrit" – 2011 as Judge in National level SGI Technical Fest Sukrut in Technical paper presentation and Engg. Model competition organized by B.M.A.S. Engg.College, Keetham, Agra on 3-March- 2011. He is also appointed as external expert member of evaluation team of hardware projects.

36. Prof. Chaturvedi successfully completed two terms as council member of Aeronautical society of India, Agra Chapter, ADRDE, Agra in May 2011.
37. Prof. Chaturvedi invited as an External Expert of Recruitment Board on 16th May 2011 at K.P. Engineering College Agra – Firozabad Road, Agra.
38. The name of Prof. Chaturvedi was included in international advisory committee /technical Committee of IEEE international conference on Fuzzy and Neural Computing Conference (FANCCO) – 2011 organized under the chairmanship of Prof. Janusz Kacprzyk, Poland on Dec. 19-21, 2011.
39. Prof. Chaturvedi invited as an external expert to review the Controlled Aerial Delivery System (CADS) developed jointly by ADRDE, Agra and ADE Bangalore for 350 kg of payload on 27th July 2011. This is precise delivery of payloads to a pre-designated target location using RAM Air Parachute. The board has reviewed the system preparedness and its health for conducting the trial. Prof. Chaturvedi also requested to witness the trail of Controlled Aerial Delivery System (CADS) on 1st Aug. 2011 at DZ Malpura, Agra.

INTERNATIONAL PUBLICATIONS

Publications (Category wise)	So Far (since 1992)	In Last 5 years (Since 2005)
In National & International Journals	51	17
In Refereed Conference Proceedings	98	43
Total	**159**	**60**



A. JOURNAL

1. Kalra, P.K., Srivastava, S.C. and Chaturvedi, D.K. **Possible Applications of Neural Nets to Power System Operation and Control.** *Int. J. of Power System Research, Vol*. 25, 1992, pp. 83-90. (Impact Factor =1.461)

2. Avadhanlu, T.V., and Chaturvedi, D.K., **Evaluation of Supply conditions and Performance in an Inverter Fed Induction Motor Drive System.** *Int. J. of Modeling, Measurements and Control, France, A, Vol*.43, No. 4, 1992, pp. 23-39 (Impact factor = 0.269).

3. Chaturvedi, D.K., and Sharma, R.K., **Modeling and Simulation of Force Generated in Stanchion System of Aircraft Arrester Barrier System**, *Int. J. of Modeling, Measurements, and Control, France, B, Vol.* 64(2): 33-51, 1996, (Impact factor = 0.269).

4. Chaturvedi, D.K., Satsangi, P.S. & Kalra, P.K, **A Fuzzy Simulation Model of Basic Commutating Electrical Machines,** *Int. Journal of Engineering Intelligent Systems, Vol. 6(*4): 225-236, Dec. 1998 (Impact factor = 1.2)

5. Chaturvedi, D.K., Satsangi, P.S. & Kalra, P.K, **Load Frequency Control: A generalized Neural Network Approach,** *Int. J. on Electric Power and Energy Systems, Elsevier Science, Vol.21: 405-415, 1999* (Impact Factor = 1.663)

6. Chaturvedi, D.K., Satsangi, P.S. & Kalra, P.K, **New Neuron Model for Simulating Rotating Electrical Machines and Load Forecasting Problems**, *Int. J. on Electric Power System Research, Elsevier Science, Ireland, Vol.* 52: 123-131, 1999 (Impact Factor =1.461)

7. Chaturvedi, D.K., Satsangi, P.S. & Kalra, P.K, **Fuzzified Neural Network Approach for Load Forecasting Problems**, *Int. J. on Engineering Intelligent Systems, CRL Publishing, U.K., Vol*. 9(1): 3-9, March 2001 (Impact factor = 1.2)

8. D.K. Chaturvedi, Pritam Singh, Man Mohan, S.K. Gaur & D.S.Mishra, **Development Of HIV Model And Its Simulation** *J. of Health Management*, Vol. 3(1): 65-84, (2001), Sage Publications (Impact Factor = 2.158).

9. Chaturvedi D.K., Man Mohan & Saxena A.K., **Development of HIV infected population model using System Dynamics Technique,** *Int. J. of Modeling, Measurements, and Control, France, Vol. 22(2): 1-14, 2001*(Impact factor = 0.269).

10. Chaturvedi, D.K., Ramawadh Chauhan & Kalra, P.K, **Applications of Generalised Neural Network for Aircraft Landing Control System,** *Int. J. on Soft Computing - A Fusion of Foundations, Methodologies and Applications, Springer- Verlag, Vol.* 6(6): 441-448, Sept. 2002 (ISI Impact Factor = 1.328).

11. Chaturvedi DK, Man Mohan, Ravindra K. Singh & Kalra PK, **Improved Generalized Neuron Model for Short Term Load Forecasting**, *Int. J. on Soft Computing - A Fusion of Foundations, Methodologies and Applications*, 8(1): 10-18, April 2004, , Springer-Verlag Heidelberg. (ISI Impact Factor = 1.328).

12. Man Mohan Chaturvedi DK, Satsangi PS & Kalra PK, **Neuro-Fuzzy Approach for Development of New Neuron Model,** *Int. J. of Soft Computing - A Fusion of Foundations, Methodologies and Applications, 8(1):* 19-27, *Oct*. 2003, Springer-Verlag. (ISI Impact Factor = 1.328).

13. Man Mohan, Chaturvedi DK & Kalra PK, **Development Of New Neuron Structure For Short Term Load Forecasting,** *Int. J. of Modeling and Simulation, AMSE periodicals, 2003, Vol.* 46(5): 31-52, (Impact factor = 0.269).

15. Chaturvedi DK, Malik OP & Kalra PK, **Generalized Neuron based Power System Stabilizer**, *Int. J. of Electric Power Components and Systems, Vol.* 32(5): 467-490, May 2004, (JCR Impact Factor = 1.613)

16. Chaturvedi DK, Malik OP & Kalra PK, **Experimental Studies of Generalized Neuron Based Power System Stabilizer,** *IEEE Trans. On Power systems, Vol.* 19(3): 1445-1453, August 2004, pp. (JCR Impact Factor = 1.938)

17. Chaturvedi DK, Malik OP & Kalra PK, ***A Generalized Neuron Based PSS in A Multi-Machine Power System***, *IEEE Trans. Of Energy Conversions, USA, Vol*. 19(3): 625-632, Sept. 2004, (JCR impact Factor 2.635)

18. Chaturvedi DK, Malik OP & Kalra PK, **A Generalized Neuron Based Adaptive Power System Stabilizer**, *IEE Proceedings Of Generation, Transmission & Distribution, Vol.* 15(2): 213-219, March 2004, , UK. (Impact Factor = 0.856)

19. Chaturvedi DK & Malik OP, **A Generalized Neuron Based Adaptive Power System Stabilizer for Multimachine Environment,** *IEEE Trans. on Power Systems, Vol.* 20(1): 358-366, Feb 2005 (JCR Impact Factor = 1.938)

20. Chaturvedi DK, Malik OP & Kalra PK, **Application of Generalized Neuron Based Power System Stabilizer in a Multi-Machine Power System** *(Research Note) Iranian Journal on Science and Technology, Part B, Engineering Transactions, Poland, Vol*. 17(2): 131-140, July 2004, pp, ISSN 1728-144X. (Impact factor = 0.130)

21. Chaturvedi DK, & Malik OP, **Generalized Neuron Based PSS and Adaptive PSS**, *Int. J. Control Engineering Practice (Special issue on Power Plants and Power System Control), IFAC, Vol.* 13(12): 1507-1514, Dec. 2005 (Impact factor= 1.977)

22. Chaturvedi DK, **Dynamic Model of HIV/AIDS Population of Agra Region**, *Int. J. of Environmental Research and Public Health, USA, Vol.* 2(3): 420-429, 2005 (Impact factor = 1.607)

23. Saini Ashish, Chaturvedi DK, A.K. Saxena, **Optimal Load Flow: A GA-Fuzzy System Approach"**, *Int. J. of Emerging Electrical Power System Research, Berkley Press, Vol* 5(2): 1-21, 2006(Impact factor =0.035).

26. Chaturvedi DK & Malik OP, **Experimental Studies of a *A Generalized Neuron Based Adaptive Power System Stabilizer***, *Int. J. Soft Computing - A Fusion of Foundations, Methodologies and Applications, Springer Berlin / Heidelberg, Vol.* 11(2): 149-155, Jan. 2007. (ISI Impact Factor = 1.328).

27. Chaturvedi DK and Sharma RK, "**Modelling and Simulation of a parachute Deceleration Devices**", *AMSE Journal on the Advancemenet of Modelling and Simulation*, 2007.

28. Chaturvedi DK & Malik OP, ***Neuro-Fuzzy Power System Stabilizer,*** *IEEE Trans. on Power Systems, Vol.*(3): 887-894, Sept. 2008 (JCR Impact Factor = 1.938)

29. Chaturvedi D.K., Sinha Anand Premdayal, Chandiok A., ***Load Forecasting Using Soft Computing***, *Int. J. Communications, Network and System Sciences*, 3: 273-279, 2010 (SCI Impact Factor =1.107)..

31. Himanshu Vijay, Chaturvedi D.K., ***Parameters Estimation of a Fan System using Artificial Neural Networks (ANNs),*** *Int. J. of Intelligent Learning Systems and Applications*, 2: 33-38**,**

2010.

32. Mishra DS, Chaturvedi DK, Kaushik SP, Sahni SS, "***Policy Design for Better Worldliness of a Tribal Area in the Ideal Sustainable Setting of Rajaborari /Timarni as an Echo Forrest Village complex: A Systems Approach***", Paritanrika Int. J. of System Sciences and Engineering, Vol. 19 (1): 263-269, 2010.

33. D.K. Chaturvedi, Ibraheem., A.K. Singh, Khatoon S., "***Modelling and Simulation of Synergism of hydraulic and eddy current absorber for aircraft arrester barrier system***", Int. J. on Modeling, Measurement and Control: A General Physics and Electrical Applications, Vol. 83, Issue 2, 2010.

34. Sanjeev Kumar, D.K. Chaturvedi, **"*Prediction of Interest Rate using Generalized Neural Method*",** International Journal of Computer Information Systems and Industrial Management Applications. ISSN 2150-7988 Volume 3 (2011) pp. 738-745.

35. Jain R.K., Chaturvedi, D.K., Gupta, B.D., ***Modeling, Optimization and Simulation of Rotary Furnace using Artificial Neural Network,*** Int. J. of Engineering Sciences and Technology (IJEST), Vol. 3, No. 4, April 2011. (Unofficial Impact Factor 1.85)

B. CONFERENCE

1. Chaturvedi, D.K., Vishal Kumar, Satsangi, P.S. and Kalra, P.K., ***Development of Fuzzy Simulator For Modelling and Simulation of Power Systems Components***, Int. Power Engineering Conference, Singapore, May 23-27, 1997.

2. Chaturvedi, D.K., Vishal Kumar, Satsangi, P.S. and Kalra, P.K., ***Development of Back-propagation with New Models of Neurons and its Applications to Power Systems Modelling***, Int. Power Engineering Conference, Singapore, May 23-27, 1997.

3. Chaturvedi, D.K., Vishal Kumar, Satsangi, P.S. and Kalra, P.K., ***Electrical Machines Modelling New Neuron Models of Backprop,*** Second International Conference on Power Electronics and Drive Systems, PEDS „97, Singapore, May 26-29, 1997.

4. Chaturvedi, D.K., Vishal Kumar, Satsangi, P.S. and Kalra, P.K., ***Application of Fuzzy Logic in Modelling and Simulation of Rotating Electrical Machines***, Int. Conf. On Computer Application in Electrical Engineering, Roorkee, India, pp. 151-156,Sept. 8-11, 1997.

5. Lajwanti, Chaturvedi D.K., Satsangi Nandita, Satsangi, S.P., ***Role of Computers in Higher Education,*** World conference on Education India: The Next Millennium, New Delhi, India, pp. 54 Nov 12 – 14, 1997.

6. Chaturvedi, D.K., Satsangi, P.S., Kalra, P.K., ***Load Forecasting using Flexible New Neuron Models,*** Int. Conf. On Power Generation, System Planning and Operation, in I.I.T. Delhi, India, pp. 148-155, Dec. 12-13, 1997.

7 Chaturvedi, D.K., Satsangi, P.S., Kalra, P.K., ***Load Frequency Control of Power System Using Generalized Neural Network,*** Int. Conf. On Energy Management and Power Drives, Singapore, 1998.

8. Chaturvedi, D.K., Satsangi, P.S., Kalra, P.K., **Fuzzy Simulator: A tool for Modelling and Simulation**, Int. Conf. On Contribution of Cognition to Modelling (CCM „98), Lyon, Villeurbanne, France,July 6-8, 1998.

9. Chaturvedi, D.K. & Lajwanti, ***Education That Really Works,*** Int. Conf. On Education culture in the 21st Century: Knowledge, Teacher and Technology, Silchar Silchar (Assam), India, Jan. 29-31, 1999.

10. Lajwanti & Chaturvedi, D.K., ***Education and Computerisation***, 40th WEF Int. Conf. On Educating for a Better World: Vision to Action, Launceston, Australia, pp. 5-10, Jan. 1999.

11. S.K.Gaur, Chaturvedi, D.K., D.S.Mishra & Ashok Yadav, ***Impact Structuring Of Continuing Engineering Education Policy Elements For Designing Alternative Policies For Techno-Pedagogical Environment,*** World Conference on Teacher Education For Excellence (WCTEE), Marathwada College of Education, Rouzabagh, Aurangabad, India, May 8-10, 1999.

12. Chaturvedi, D.K., S.K.Gaur, D.S.Mishra & P.K. Kalra, **Load *Frequency Control: An Integrated Approach,*** Int. Conf. On Artificial Intelligence (ICAI"99), Durban, South Africa,24-26 Sept. 1999.

13. Chaturvedi, D.K, Gaur S.K., Mishra, D.S., & Kalra, P.K., ***Generalised Neural Networks with Genetic Algorithm Based Learning***, Int. Conf. On Modelling, Simulation and Communication (CMSC"99), Jaipur. pp. Abstract – 108, Jaipur, India, Dec. 1-3, 1999.

14. Praveen Tyal, Gaur S.K., Chaturvedi, D.K, & Mishra, D.S., ***Modelling Compatible Policy Criterion for Quality Recruitment in An Industrial Environment: A Fuzzy Set Approach***, Int. Conf. On Modelling, Simulation and Communication (CMSC"99), Jaipur, pp. Abstract –75, Jaipur, India, Dec. 1-3, 1999.

15. Lajwanti, Chaturvedi, D.K., V. Soami Das, ***Teaching and Learning Through Computer Games,*** Int. Conf. On Educational Management, Technology and Values, Udaipur (Raj.), India, Souvenir- page no. 56, Dec. 10-12, 1999.

16. Gaur S.K., Chaturvedi, D.K, Sahab Dayal & Mishra, D.S., ***A Fuzzy Set Procedure for Selecting Higher Educational Programme Strategies with Hierarchical Objectives to improve Quality of Life,*** Int. Conf. On Educational Management, Technology and Values, Udaipur (Raj.), India, Souvenir- page no. 43, Dec. 10-12, 1999.

17. Man Mohan, Chaturvedi DK & Pramod Sharma, ***Load Forecasting Model Using Genetic Programming,*** Int. Conference on Optimization, Agra.

18. Chaturvedi DK, Malik OP & Kalra PK, ***Power system Stabilizer using Generalized Neural Network***, Proceedings of 34th North American Power Symposium (NAPS – 2002), Arizona, USA, Oct. 14-16, 2002, pp. 320-327.

19. Chaturvedi DK, Malik OP & Kalra PK, ***A Generalized Neuron based multi-Machine Power System Stabilizer***, Int. Conf. on Intelligent Systems Application to Power Systems (ISAP) 2003, Lemnos, Greece, 22nd – 25th June 2003.

20. Chaturvedi DK, Malik OP, ***Comparison of Generalized Neuron Based PSS and Adaptive PSS***, Int. Federation of Automatic Control (IFAC) Symposium on Power Plants and Systems Control, 2003, June 9-12, 2003, Seoul, Korea. **(Recommended for Journal Publication), pp. 988-994.**

21. Chaturvedi D.K., ***Effect Of Error Functions On Training Performance Generalized Neuron Models***, International Indian Conference on Automatic Control, Hyderabad.

22. Saini A., Chaturvedi D.K. Saxena A.K. and P.K. Kalra, "**Transmission Pricing Model Under Deregulated Environment**", IEEE symposium on Technological Advances and IT Applications for Indian Power Sector, Bangalore, 2006, pp.1-10.

23. Chaudhary U.K., Chaturvedi D.K. and Ibraheem, "**A Fuzzy Logic Based Variable Gain Power System Stabilizer**" **IEEE conference on** Recent Advanced Applications of computers in Electrical Engineering" (RACE) to be held during 24-25 march 2007.

24. . Mahendra Kumar, D.K. Chaturvedi, Vijay Ranjan Srivastava, Soami P.Satsangee, "**LabVIEW Based Low Cost Photoplethysmography Unit**", IEEE conference on Recent Advanced Applications of computers in Electrical Engineering" (RACE) to be held during 24-25 march 2007.

25. "**Congestion management method based on GA-Fuzzy OPF under constraint"**, IEEE International Conference on Power Systems (ICPS07) , Bangalore, Dec. 2007.

26. Chaturvedi DK and Malik OP, "**Development of Fuzzy Power System Stabilizer using Polar Fuzzy Information**", IEEE International Conference on Power Systems (ICPS07), Bangalore, Dec. 2007.

27. U. K. Choudhury, D.K.Chaturvedi and Ibraheem, **Power System Stabilizer Based on Polar Fuzzy Logic Technique**, Int. Conf. on Power Systems Analysis, Control and Optimization (PSACO – 2008), 13-15 March 2008, organized by Department of Electrical Engineering, AU College of Engineering, Andhra University, VISAKHAPATNAM-530003, AP,India.

28. Saini A, Saxena AK,, Chaturvedi DK, „**Determination of Real and Reactive power Marginal Prices using GA-Fuzzy OPF under Deregulated Environment**", IEEE Conf. on Applications of AI Tools in Engineering, Cummins College of Engineering for Women, Pune, 6-8 March 2008

29. Chaturvedi D.K. and Malik O.P., "**Adaptive polar fuzzy Based PSS for Multi-machine Environment**", IEEE International Conference on Sustainable Energy Technology (ICSET-2008), SMU Conference Centre, Singapore, 24-27 Nov. 2008.

30. D.K. Chaturvedi, Ashish Chandiok, V.Prem Prakash, "**Intelligent Analysis of Student Information System using Neuro-Fuzzy Approach**" Souvenir of National Seminar on Emerging Trends in

Computing Through IT Enabled Systems (ETCITES "09), Feb. 7-8, 2009. Organized by Dept. of CSE and IT, Anand Engineering College Agra in collaboration with Computer Society of India.

31. D.K. Chaturvedi, Arunesh Kumar and Ibraheem, **Modelling of Eddy Current Braking for Energy Absorbing Systems of Aircraft Arrester Barrier System**, IEEE Int. Conf. on **Modelling and Simulation (MS 2009),** Banff, Alberta, Canada, July 6 – 8, 2009.

32. D K Chaturvedi, Ashish Chandiok, Mohd. Kamaruddin, **Neuro Fuzzy Based Expert Evaluation in Education System,** SIAM Int. Conf. on Modeling of Engineering and Technological Problems, BMAS, Agra, 13-16th Jan. 09.

33. D K Chaturvedi, Ashish Chandiok, Mohd. Kamaruddin, **Fuzzy system model of Internet System Exploitation and Usage in Society**, IEEE Int. Conf. on Innovative Technology (IEEE-IMS/EMBS2009), New Delhi, 18-19th June 2009.

34. D K Chaturvedi, Ashish Chandiok, A.H. Siddiqui, **Prediction for the time series of annual rainfall using wavelets and Neuro-Fuzzy Approach**, Int. workshop on Wavelets, Istanbul, Turkey, 4-7th June 2009.

35. D K Chaturvedi, A.H. Siddiqi, Ashish Chandiok, Shushant Agarwal, „**Annual Rainfall Forecasting Using Soft Computing Techniques**", Joint International Conference on Applied systems Research and National Systems Conference, (NSC) Nov. 27-29, 2009 organized by D.E.I. (Deemed Univ.) Dayalbagh, Agra, India.

36. D.S. Mishra, D.K. Chaturvedi, S.P. Kaushik, Sahab Das Kaura, Sudhir Sahni, " **Policy Design for Better Worldliness of a Tribal Area in the Ideal Sustainable settings of Rajaborari/ Timarni as an Eco-Forrest- Village Complex: A Systems Approach**", Joint International Conference on Applied systems Research and National Systems Conference, (NSC) Nov. 27-29, 2009 organized by D.E.I. (Deemed Univ.) Dayalbagh, Agra, India.

37. Arunesh Kumar, Ibraheem, D.K. Chaturvedi, Shahida Khatoon, "**Development of Eddy Current energy absorbing system for AABS**", National Conference on Modeling and Simulation (NCMS), organized by Defense Institute of Advance Technology (Deemed Univ.), Pune, 1-3 Dec. 2009.

38. Arunesh Kumar, Ibraheem, D.K. Chaturvedi, „**Eddy Current Energy Absorber" International Conference on Modeling and Simulation,** MS „ 09, India, organized by College of Engineering , Trivandrum, Karnataka, India, 1-3 Dec. 2009.

39. Nitin Singh, D. K. Chaturvedi, R. K. Singh, **A Modified Error Function GNN for Load Frequency Control of Multi–area Power System,** Int. Conf. on Artificial Intelligence, (ICAI)at Los-vegas, USA, July, 2010.

40. D. K Chaturvedi, Ashish Chandiok, Lajwanti, „**Effect of internet system exploitation on Social Environment**", International conference, on Environmental Education: A pledge to Save Earth (ICEED) organized by Faculty of Education, D.E.I. (Deemed Univ.), Dayalbagh, Agra, 2-4-July – 2010, pp 16 (Souvenir).

41. D. K Chaturvedi, Ashish Chandiok, Vishal Pengoria, „**Continuous Gas Fired Furnace for Small Scale Industries to Reduce Environmental Pollution" ,** International conference on Environmental Education: A pledge to Save Earth (ICEED), organized by Faculty of Education, D.E.I. (Deemed Univ.), Dayalbagh, Agra, 2-4- July – 2010, pp 51(Souvenir).

42. Rahul Umrao and D.K. Chaturvedi, **Load Frequency Controller using Polar Fuzzy Controller,** Proceedings of IEEE Region 10 International Technical Conference (TENCON – 2010), organized by Kyushu Univ., Fukuoka, Japan, 21-24 Nov. 2010, pp. 557-562.

43. Sanjeev kumar and D.K. Chaturved, **Generalized Neural Network (GNN) for Financial Forecasting**, Proceedings of IEEE Int. Conference on Advance Computing and Communication Technologies, organized by Asian Pacific Institute of Information Technology SD India, APIIT, Panipat, 30th Oct. 2010, pp. 437-441.

44. Tsai Hui Chu., D.K. Chaturvedi, B. Agarwal, H. Cohly, V. Kumar, **Spiritual Meditation and Physical Environment Influence the Energy Detected by M.E.A.D.,** International Conference on Religion of Saints (SANTS) – Radhasoami Mat Spirituality and Consciousness Studies (SPRICON – 2010), organized by DEI, Dayalbagh, Agra, 12-14 Nov. 2010, pp.137

45. Sanjeev kumar and D.K. Chaturvedi, **Financial Forecasting Using Generalized Neural Method,** IEEE 6th International Conference on Next Generation Web Services Practices (NWeSP 2010), Gwalior, India, 23-25 Nov., 2010, pp. 30.

46. Rahul Umrao and D.K. Chaturvedi, **Load Frequency Controller using Polar Fuzzy Controller,** Proceedings of IEEE Region 10 International Technical Conference (TENCON – 2010), organized by Kyushu Univ., Fukuoka, Japan, 21-24 Nov. 2010, pp. 557-562.

47. Sanjeev Kumar, D.K. Chaturvedi, **"Tuning of Particle Swarm Optimization Parameter using Fuzzy Logic",** International Conference on Communication Systems and Network Technologies (CSNT-2011) Shri Mata Vaishno Devi University (SMVDU) Katra, Jammu, India June 03-05, 2011.

48. Soami P. Saxena, D.K. Chaturvedi, Anurag Gupta, Sonam Bhadauriya**, Dynamic System Modeling of stock market volatility Via Fuzzy and Neuro-Fuzzy Apparoach: Impact of Real Economic Indicators in Indian Stock Market.** Int. Conf. on Mechanical Engineering Emerging Vistas, orgnaised by Anand Engineering college, Agra, 2011.

NATIONAL PUBLICATIONS

A. Journal

1.Chaturvedi, D.K. and Satsangi, P.S., ***System Dynamics Modelling and Simulation of Basic Commutating Electric Machines: An Alternative Approach***, J. of The Institution of Engineers (India), EL, Vol. 73, April, 1992, pp.6- 10.

2. Chaturvedi, D.K., and Satsangi, P.S., ***Innovative Approach for Predicting the performance Characteristics of Synchronous Generators***, J. of The Institution of Engineers (India), El, Vol. 74, Nov. 1993, pp. 109-113. **(The Best paper Award for the year 1993-94)**

3. Chaturvedi, D.K., ***Neural Networks: A Simulation Tool for Basic Commutating Machine***, J. of The Institution of Engineers (India), El, Vo. 75, Nov. 1994, pp. 83-85.

4. Chaturvedi, D.K., and Gupta, B.R., ***Simulation of Temperature Variation in Parachute Inflation***, J. of The Institution of Engineers (India), AS, Vol. 76, Sept. 1995, pp. 29-31.

5. Chaturvedi, D.K., Misra, R.S., and Agarwal, A.K., ***Load Forecasting Using Genetic Algorithms,*** J. of The Institution of Engineers (India), EL, Vol. 76, No. 3, Nov. 1995, pp.161-165.

6. Chaturvedi, D.K., Satsangi, P.S. & Kalra, P.K, ***Short term Load Forecasting Using Generalized Neural Network Approach,*** Journal of The Institution of Engineers (India), EL, Vol. 78, Aug. 1997, pp. 83- 87.

7. Chaturvedi, D.K., Satsangi, P.S. & Kalra, P.K, **Flexible Neural Network Models for Electrical Machine**, Journal of The Institution of Engineers (India), EL, Vol. 80, May 1999, pp.13-16.

8. Chaturvedi, D.K., Satsangi, P.S. & Kalra, P.K, ***Applications of Generalized Neural Network to Load Frequency Control Problem,*** Journal of The Institution of Engineers (India), EL, Vol. 80, Aug. 1999, pp.41-47.

9. Chaturvedi, D.K., Satsangi, P.S. & Kalra, P.K, ***Development of Fuzzy Simulator for DC Machine Modelling***, Journal of The Institution of Engineers (India), EL, Vol. 80, Aug. 1999, pp. 53-58. **(Awarded by Tato Rao Medal award)**

10. Gaur S.K., Chaturvedi, D.K., & Mishra D.S, ***A Hierarchical Structured Model of Continuing Engineering Education Policies in A Techno-Pedagogical Environment,*** Journal of The Institution of Engineers (India), ID, Vol. 81, June 2000, pp.12-15.

11.Chaturvedi, D.K., Man Mohan & Kalra, P.K, ***Development of Flexible Neural Network***, Journal of The Institution of Engineers (India), CP, Vol. 83, May 2002, 1-5.

12. Chaturvedi, D.K., Ram Kumar, Kalra P.K., ***Artificial Neural Network Learning Using Improved Genetic Algorithms,*** Journal of The Institution of Engineers (India), CP, Vol. 82, Nov. 2001, pp. 1-8.

13. Man Mohan, Chaturvedi DK, A.K. Saxena & Kalra PK, ***Short-term load forecasting by Generalized neuron model***, J. of The Institution of Engineers (India), EL, Vol.83, Sept. 2002, pp. 87-91.

14. Chaturvedi DK, Malik OP & Kalra PK, ***Neural Network Controller for power System Stabilization,*** J. of The Institution of Engineers (India), EL, Vol. 85, Dec. 2004, pp.138-145.

15. D.K. Chaturvedi, "**Better Worldliness**", D.E.I. Magazine, Dayalbagh, Agra, June – 2006.

16. Chaturvedi D.K., G.P Rana and Himanshu, **"Smart metering of Electrical Power Consumption**", Electrical India, Vol. 48, No. 10, Oct. 2008, pp.90-99.

17. Chaturvedi D.K., Malik O.P., Choudhury U.K., "**Polar Fuzzy Adaptive Power system Stabilizer**", J. of The Institution of Engineers (India), EL, Vol. 90, Sept. 2009, pp. 39-45.

18. Chaturvedi D.K., G.P Rana and Himanshu, **"Solar Energy: A Future Prospects in India**", Electrical India, Vol. 50, No. 01, Jan. 10, pp.80-89.

19. Arunesh Kumar Singh, **D. K Chaturvedi**, Shahida Khatoon, Ibraheem and R. K. Sharma, „**Modelling of eddy current braking for energy absorbing system of aircraft arrester barrier system**" , Journal Of Aerospace Sciences & Technologies Vol.62, No.3, August 2010.

20. Sabnam, D.K. Chaturvedi, Saxena S.P**.,** "Modeling and Simulation of Forecasting of stock market" Chapter contributed in Book Published from Narosa Publisher, Delhi, 2011.

21. **D.K. Chaturvedi, Solar Power Generation at Higher Altitudes using Aerostat**", Electrical India, Vol. 50, No.10, Oct. 2010.

B. CONFERENCE

1. Chaturvedi, D.K., Satsangi, P.S., ***Modeling and Simulation of Synchronous Machines Via System Dynamics Technique***, National Conference on System Design and Simulation (SYDSIM), IEEE (UP Sub-Section) and DEI, Dayalbagh, Agra, April 30 – May 2, 1992.

2. Chaturvedi, D.K., Saini, R.K., and Satsangi, P.S., ***CAI of DC Machines Via Simulation Packages,*** National Conference on System Design and Simulation (SYDSIM), IEEE (UP Sub-Section) and DEI, Dayalbagh Agra, April 30 – May 2, 1992.

3. Chaturvedi, D.K., and Gupta, B.R., ***Heat Generation Modelling During Parachute Packing and Deployment,*** National Conference on System Design and Simulation (SYDSIM), IEEE (UP Sub-Section) and DEI, Dayalbagh, Agra, April 30 – May 2,1992.

4. Chaturvedi, D.K., Bahadur, K., and Gupta, B.R., ***An Innovative Approach for Predicting the Selected Performance Characteristics of Aerodynamics deceleration Device***, Proc. of National Systems Conference (NSC – 92), pp. 123 – 126, Madras, 1992.

5. Chaturvedi, D.K., ***Applications of Neural Networks in Modelling and Simulation of D.C. Machines***, Proc. Of National Systems Conference on Neural Networks, School of computer Sciences and Engineering, Anna University, pp. 171 – 183, Madras, March 1993.

6. Chaturvedi, D.K., Gupta, B.R., and Bahadur Kunwer, ***Performance Evaluation of Parachute During Inflation,*** Proc. Of National Systems Conference (NSC – 94), D.E.I., Dayalbagh, pp. 232, Agra, Jan. 14 – 16, 1995. **(Best Presentation award to Balraj Gupta)**

7. Chaturvedi, D.K., ***Intelligent System Dynamics Simulation of Basic Commutating Machine***, National Conference and Workshop on Artificial Intelligence and Neural Networks (AINN – 95), Guru Nanak Dev University, Amritsar, (Punjab), Feb 15 – 17, 1995.

8. Chaturvedi, D.K., and Sharma, R.K., ***An Experimental Study of Initial Tension of Suspension Strap of Aircraft Arrester Barrier System,*** National Systems Conference, PSG College of Technology, Coimbatore, pp. 474 – 481, Coimbatore, Dec. 14 – 16, 1995.

9. Chaturvedi, D.K., Varshney, ***Modelling and Simulation of Production Distribution System***, National Systems Conference, PSG College of Technology, Coimbatore, pp. 620 – 623, Coimbatore, Dec. 14 – 16, 1995.

10. Chaturvedi, D.K., **HIV Infected Population Using System Dynamics Technique**, Three Day Workshop Cum Training Programme On AIDS, DEI, Dayalbagh, Agra, Nov. 25 – 27, 1995.

11. Chaturvedi, D.K., Das, V.G., Satsangi, P.S. & Kalra, P.K., ***Effect Of Different Mappings And Normalization Of Neural Network Models,***Ninth National Power Systems conference, Indian institute of Technology, Kanpur, PP.377-386,Kanpur, Dec 19-21. , 1996.

12. Chaturvedi, D.K., & Chaturvedi Alok, ***Modelling and Simulation of Self Excited Induction Generator (SEIG),*** National Systems Conference (NSC-96), Vikram Sarabhai Space Center, ISRO, Thiruvanantpuram, Dec. 19-21, 1996.

13. Chaturvedi, D.K., Vishal Kumar, Satsangi, P.S. and Kalra, P.K., ***DC Machine Modelling Using Fuzzy Logic***, National Conference on Electric Drives and Control for Transport Systems, Smrat Ashok Technological Institute, Vidisha (M.P.), Jan 16-18, 1997

14. Chaturvedi, D.K., Sharma, R.K, ***Modelling and Simulation of Parachute System for Para dropping of 10 Men Dinghy Using Systems Dynamics Technique***, Two Day National Symposium on Parachute & Lighter Than –Air Systems Technology, Aerial Delivery Research and Development Establishment, pp. 81, Agra, Jan 23-24, 1997.

15. Chaturvedi, D.K., Satsangi, P.S., and Mishra, D.S., ***Causal Models of HIV Infected Population***, XVI National Conference on One Decades of HIV – AIDS in India, organized by Indian Society of Health Administrators (ISHSA), Banglore, Dec. 1-3, 1996.

16. Lajwanti and D.K. Chaturvedi, ***Technology Shift From Hard To Soft in Teaching,*** National Seminar on Global Interconnectivity for Technical Education on India, Bhopal, Dec. 19-21, 1997.

17. D.K. Chaturvedi, Pankaj Rusia and Deepak Bardwaj, ***A Generalized Neural Network Controller for Generator Excitation Control,*** National Conference on Trends and Challenges in Large interconnected power system, Warrangal (A.P.), Feb.14-15, 1998.

18. Chaturvedi, D.K., Lajwanti & Kamlesh Mandloi, ***Effect of Advertisement on Consumer Behavior***, PRAACHI National Conf. On Human Behavior and Management Practices in 21st Century at Indore, pp. Souvenir 11, Jan. 30-31, 1999.

19. Lajwanti, Chaturvedi, D.K.& Kamlesh Mandloi, ***How Does the Advertisement Affect the Consumer's Behavior,*** PRAACHI National Conf. On Human Behavior and Management Practices in 21st Century at Indore (M.P.), pp. 98-108, Jan. 30-31, 1999.

20. D.K. Chaturvedi, V. Soami Das, ***Optimization of Genetic Algorithm Parameters***, Proc. Of The National Seminar on Applied Systems Engineering and Soft Computing, Organized by Faculty of Engineering, D.E.I., Dayalbagh, Agra – 5, pp. 289-292, 4-5 March2000

21. Man Mohan, D.K. Chaturvedi, ***Error Gradient Algorithm for Optimization of Fuzzy Membership Functions,*** Proc. Of The National Seminar on Applied Systems Engineering and Soft Computing, Organized by Faculty of Engineering, D.E.I., Dayalbagh, Agra – 5, pp. 194-198, 4-5 March2000

22. D.K. Chaturvedi, Mahadev B. Allolli, & Man Mohan, ***Fuzzy System Applications for Aircraft Landing Control System,*** National Conference on Operations Research & Information Technology, Organized by ORSI, Agra Chapter & Center for Information and Decision Sciences, Souvenir – pp 51, April 2-3, 2000.

23. V. Soami Das, D.K. Chaturvedi, & Man Mohan, ***Improved Genetic Algorithms for Optimization***, National Conference on Operations Research & Information Technology, Organized by ORSI, Agra Chapter & Center for Information and Decision Sciences, Souvenir – pp 51. April 2-3, 2000

24. D.K. Chaturvedi, Man Mohan & P.K. Kalra, ***Development of GNN-1 and its applications to load forecasting***, AICTE sponsored All India Seminars on Power Systems: Recent Advances and Prospects in 21st Century (PSRAP21C) Organized by MREC, Jaipur, 17 Feb. 2001.

25. Man Mohan, D. K. Chaturvedi, H. Vijay, ***Electrical Load Forecasting By Generalized Neural Network***, National seminar on Energy and Environment at Anand Engineering College, Agra, December 21-22,2001.

26. ManMohan, D.K. Chaturvedi, Himanshu Vijay & Tanveer Qanar, ***Electrical Load Forecasting using Genetic Algorithms***, National Seminar on Energy & Environment, Organized by Anand Engineering College, Mathura Road, Agra, Dec. 21-22, 2001.

27. Pritam Singh & Chaturvedi, D.K., ***The Present Educational System and Rural Development,*** Platinum Jubilee National Seminar on Technical Education for Transformation to Knowledge Society Organized by DEI Technical College, Dayalbagh, Agra, Jan. 18-19, 2002.

28. Santsangee S.P. & Chaturvedi D.K., ***Virtual Laboratories: A New Vision Of Technical Education***, Platinum Jubilee National Seminar on Technical Education for Transformation to

Knowledge Society Organized by DEI Technical College, Dayalbagh, Agra, Jan. 18-19, 2002.

29. BB Rao, Manmohan, D.K. Chaturvedi & A.K. Saxena, ***Power System Stabilizer Design: A Review***, Proceedings of the National Seminar on Emerging Convergent Technologies and Systems (SECTAS) – 2002 organized by DEI, Dayalbagh, Agra, March 1-2, 2002, pp. 632-640.

30. D.K. Chaturvedi, A. K. Saxena, Man Mohan, ***Back-Propagation Learning Algorithm: A review***, Proceedings of the National Seminar on Emerging Convergent Technologies and Systems (SECTAS) – 2002 organized by DEI, Dayalbagh, Agra, March 1-2, 2002, pp. 711-718.

31. Manmohan, D.K. Chaturvedi & P.K. Kalra, ***Synergism of ANN-Fuzzy Systems for load forecasting –An overview***, Proceedings of the National Seminar on Emerging Convergent Technologies and Systems (SECTAS) – 2002 organized by DEI, Dayalbagh, Agra, March 1-2, 2002.pp. 701-710.

32. B.D. Patro, Rajneesh Yadav, D.K. Chaturvedi, **A *Fuzzy Model for Weather Forecasting***, Proceedings of National Seminar on Role of Information Technology in Rural Development organized by Institute of Engineering and Technology, Dr. B.R. Ambedkar University, Agra, April 6-7, 2002.

33. D.K. Chaturvedi, ***An Artificial New Neuron Model for Power System Stabilization***, National Conference on Recent Trends in Power System, Department of Electrical Engineering, Jamia Millia Islamia University, New Delhi, pp.98-101, 16-17 August, 2003. **(Awarded by Best paper award).**

34. Chaturvedi, DK, Science, **Religion And Spiritual Quest,** Edited book on Linkages between Social Service, Agriculture and Theology for the Future of Mankind, DEI Press, 15-17, 2004.

35. Arti Saxena, D.K. Chaturvedi & P.K. Saxena, ***Karmas* and *Upasana*: The Scientific *Mantra* of Saints**, Edited book on Linkages between Social Service, Agriculture and Theology for the Future of Mankind, DEI Press, 142-144, 2004.

36. Arti Saxena, D.K. Chaturvedi & P.K. Saxena, **Modeling and Simulation of Ideal Society**, National Symposium on Education for Better Worldliness (EBW0 2005), Organized by D.E.I. Dayalbagh, Agra, Oct. 1-2, 2005

37. Lajwanti, D.K. Chaturvedi, **Education and World Order**, National Symposium on Education for Better Worldliness (EBW0 2005), Organized by D.E.I. Dayalbagh, Agra, Oct. 1-2, 2005

38. Chaturvedi D.K., Satsangi S.P., Srivastava V.R., Jaiswal Shiv Pujan, "**Effect of Power Frequency Magnetic Field on public Health and Its Measurements**", Souvenir All India Seminar on Bio-Medical Engineering and Bio-Informatics (BMEBI – 07), Organized by Anand Engineering College, Agra and IE(I), Aligarh Local Center, Aligarh, pp. 58-65, March 24th – 25th 2007.

39. Singh Arunesh Kumar, Ibraheem, SahidaKhatoon, Chaturvedi D.K., **Analysis of Permanent Magnet Eddy current Braking for Energy Absorbing system of Aircraft Arrestor Barrier System**, National Conference on Advancement of Technologies – Global Scenario at GLA institute of Technology and Management, Mathura, , 25-26th Feb 2007.

40. Neeraj Gupta, Amrit Peeyush, Prem K. Kalra, D. K. Chaturvedi, **High-Voltage Electrical Architecture in Future Automobiles**, National systems Conference (NSC) – 2007, Manipal Institute of Technology (MIT), Manipal, 14-15 Dec. 2007.

41. U.K.Choudhury, D.K.Chaturvedi and Ibraheem, **Gain Tuning of Power System Stabilizer Through Fuzzy Logic Controller,** National systems Conference (NSC) – 2007, Manipal Institute of Technology (MIT), Manipal, 14-15 Dec. 2007.

42. Sinha Anand Premdayal and Chaturvedi D.K., **Mathematical modeling of Fan and its control using Fuzzy Logic**" , National Students" System Conference, organized by DEI, March 2008.

43. Chaturvedi D.K., & Helmut Rock, **Generalized Neuron Based Control of the Inverted Pendulum of a Cart,** National Systems conference, organized by I.I.T. Roorkee, 17-19 Dec. 2008.

44. Chaturvedi D.K., **Adaptive Polar Fuzzy Power System Stabilizer**, National Systems conference, organized by I.I.T. Roorkee, 17-19 Dec. 2008.

45. Himanshu Vijay and Chaturvedi D.K., **Analysis of Parameters Estimation Techniques of Synchronous Machine**, National Systems conference, organized by I.I.T. Roorkee, 17-19 Dec. 2008.

46. D.K. Chaturvedi, Chandiok A, V.Prem Prakash, "**Intelligent Analysis of Student Information System using Neuro-Fuzzy Approach**" Souvenir of National Seminar on Emerging Trends in Computing Through IT Enabled Systems (ETCITES " 09), Feb. 7-8, 2009. Organized by Dept. of

CSE and IT, Anand Engineering College Agra in collaboration with Computer Society of India.

47. D K Chaturvedi, Ashish Chandiok, Monika, **Need of Spiritual Study in recent Education System**, Second Indian Students Systems" Conference, DEI Chapter, System society of India, 14th Feb. 2009.

48. Arunesh Kumar, Ibraheem, D.K. Chaturvedi, Shahida Khatoon, "**Development of Eddy Current energy absorbing system for AABS**", National Conference on Modeling and Simulation (NCMS), organized by Defense Institute of Advance Technology (Deemed Univ.), Pune, 1-3 Dec. 2009.

49. Arunesh Kumar, Ibraheem, D.K. Chaturvedi, „**Eddy Current Energy Absorber" International Conference on Modeling and Simulation**, MS „ 09, India, organized by College of Engineering , Trivandrum, Karnataka, India, 1-3 Dec. 2009.

50. Sinha Anand, Chaturvedi D.K., **Fuzzy logic Fan controller using LABVIEW"** , National Conference on Trends in Instrumentation and Control Engineering, Organized by Thaper University, Patilia, 29-30 Oct. 2009.

51. Himanshu Vijay, Sanjeev Kumar, Chaturvedi D.K., „**Synchronous machine parameter estimation using Generalized Neural Network"** , National Conference on Trends in Instrumentation and Control Engineering, Organized by Thaper University, Patilia, 29-30 Oct. 2009.

Research work Supervised

A. Ph.D. Thesis

i. ManMohan, "**Synergism of Artificial Neural Network-Fuzzy Systems for Applications to Load Forecasting in Power System**", Faculty of Engineering, D.E.I., Dayalbagh, Agra 2003. **(Completed).**

ii. Ashish Saini, **Deregulated Model for Transmission System in India** Faculty of Engineering, D.E.I., Dayalbagh, Agra**. 2007. (Completed).**

iii. Himanshu Vijay, **Synchronous machine parameter Estimation using Soft Computing Tecniques"** , Faculty of Engineering, D.E.I., Dayalbagh, Agra **(Completed).**

iv. Sinha Anand Premdayal**, Load Forecasting using Soft Computing**, Faculty of Engineering, D.E.I., Dayalbagh, Agra**. (On – Going).**

v. G.P. Rana, „**AGC in De-regulated environment using Soft Computing"** DEI, **(On going).**

vi. Sanjeev Kumar, Power System Optimization problems using Evolutionary Algorithms and Swarm Oprimization, DEI (On-going).

vii. Rahul Umrao, "Load Frequency Control Using Fuzzy Systems and Evolutionary Algorithm" DEI (On going).

B. M.Tech. Dissertations

1. Gupta, B.R., An Innovative Approach for Modelling and Simulation of Parachute Inflation and Its Performance**,** Dec. 1993.
2. Bahadur, K., *Modelling and Simulation Performance Characteristics of Flexible Aerodynamic Deceleration Device*, Dec., 1993.
7. Mishra, R.S., *Genetic Algorithms as Function Optimizers and A study of Effects of Cross over, Mutation and Pop Size on its Performance*, Dec. 1993.
8. Sharma, R.K., *Performance Characteristics of Aircraft Arrester Barrier System*, Feb. 1994.
9. Agarwal, A.K., *Applications of GA To Multivariable Optimization Problem*, May 1994.
10. Saxena, J.K., *Computer Aided Trouble Shooting for Locomotive Diesel Engines*, Dec. 1994.
11. Varshney, Neeraj, *Market - Advertising Interaction Model*, May 95.
12. Jitendra Pal Singh, *System Dynamics Simulation of Induction Motors*, 1995.
13. Chaturvedi Alok, *Modelling and Simulation of Induction Generator*, May 1996.
14. Mazee, A.K., *Evaluation of PID controllers*, May 1996.
15. Chaturvedi, Alok, *Modelling and Simulation of Self Excited Induction Generator*, May 1996.
16. Yadav, G.K., *Fuzzy Model of Induction Machine Dynamics*, Dec. 96.
17. Yadav Rajesh, *Generalized Neural Networks to Overcome Drawbacks of Conventional Neural*

Networks, April 98.

18. Mahadev B. Alloli, *Intelligent Control System for Aircraft Landing*, April 98.
19. Ramawadh Chauhan, *Automatic Aircraft Landing Control System Using Neural Networks*, Dec. 1998,
20. Rakesh Kumar Saxena, *Load Frequency Control: An Alternative Approach*, Dec. 1998.
21. Rajneesh Kumar Yadav, *Weather Forecasting using Fuzzy Logic*, May 2000.
22. Ram Kumar, *Optimisation of ANN Weights using Genetic Algorithms*, May 2000.
23. Mishra Amit, "Application Of Generalized Neural Network For Handwriting Recognition", May 2000.
24. Ravindra Kumar Singh, *Development of Generalized Neuron Model*, Dec. 2001.
25. Pramod Sharma, *Long Term Load Forecasting Using System Dynamics Technique*, Dec. 2001
26. Pintu Sadhu, *Effect of Error Functions of Artificial Neural Network Training Time*, Dec. 2001.
27. Suchindra Sharma, *Intelligent Controller for Power system Stability*, Dec. 2002.
28. Mukesh Kumar, *"Load Frequency Control Using Fuzzy Logic Approach"*, Dec. 2003.
29. K. Srinivasan, Remote Calibrations using LabView, May 2004.
30. Anand Kumar, Power System Stabilizer Using Fuzzy Set Theoretic Approach May 2004.
31. Nitin Singh, Load Frequency Control Using Generalized Neuron Model, May 2004.
32. Arunesh Kumar, Modelling and Simulation HIV/AIDS Population, May 2004.
33. Mayank Pratap Singh, System Identification using Neural Network, May 2005.
34. B. Anand Swaroop, Polar Fuzzy System Based Adaptive Power System Stabilizer, May 2005.
35. Neeraj Gupta, Modeling and Simulation of Electronically Controlled Diesel Engine, May 2006.
36. Sonveer Singh, Fuzzy Logic Based Power System Stabilizer for Multi-Machine Environment, May 2006.
37. Amit Sarswat, Digital Image Compression Using Linear and Non-linear Principe Component analysis, May 2006.
38. Deepak Garg, "Compression machine", Dec. 2006.
39. Dushyant Varshney, "Development of Intelligent Controller for Turbocharged Diesel Enginewith EGR" May 2007.
40. Devendra Kumar, "Automatic Generation Control Using Fuzzy Logic Approach", May 2007.
41. Shiv Pujan Jaiswal, "Image processing and restoring for Bar Code Reading", May 2007.
42. Sinha Anand Premdayal, "Fan Control using Fuzzy System", May 2008
43. Sanjeev Kumar Singh, "Modeling and Simulation of Pitch Control in Flight System Using Non-linearity", May 2008.
44. Ravi Bansal, "Automatic Voltage Controller for Power System of Aerostat", May 2010.
45. Nishant Goyal, "DC Motor Speed Control using Lab VIEW", May 2010.
46. Rahul Umrao, "Polar Fuzzy Control for Load Frequency Control", May 2010.
47. Vikas Pratap, "Load Forecasting Using Neural Approach, May 2011.
48. Ajay Pal Singh, Development Of Evapotranspiration Model Using Mathematical Tools, Artificial Neural Network And Generalized Neural Network', May 2011

C. B.Sc. (Engineering) Major Project

1. Characteristics of Synchronous Machine Using System Dynamics Technique
2. Modeling and Simulation of Electrical Machines Using Matlab
3. Applications of Artificial Intelligence to Design an Induction Motor
4. Fuzzy Excitation Controller for Alternators
5. Study of Effect of Mappings on Error during Neural Network Training
6. Training of GNN for Load Forecasting Problem.
7. Kuldeep Singh, Prashant Singh, Mukesh Kumar, Saurabh Singh, **Laminated Foam As Insulating Material: A Study**, May 2004.
8. Rudra Ramesshwar & Santosh Kumar Singh, "**Design and Development of Transceiver Unit For Aircraft Arrester Barrier System**", 2005.
9. Pradeep kumar, Gur Prasad, Krishna Kant & Yeetesh Kr. Arora, "**Controlled Rising and Lowering of Aircraft Arrester Barrier System**", 2005
10. Mahabir Jain, Rakesh Singh & Rupesh Kumar, "**Speed Control of DC Motor Using LABVIEW Softwar**e", May 2007.
11. **Detection of faults on EHV transmission line using Neural Approach,** 2011.

D. Design Engineering and Theme Development Projects

1. Automatic On-Off System for Street Lights, 1999.
2. Automatic System for keeping cloths for drying in sun light and remove them when rain, 2000.
3. Pedal Operated Water Lifting System, 2002.
4. Laser operated Remote switch for non-moving persons, 2003.
5. Remote Door Locking System using plunger, 2003.
6. Battery operated Bullock Cart Head Light and Its Automatic Charging System, 2004.
7. Rudra Rameshwar, "Automatic Drip Irrigation System with Timer", 2003-04. **(Awarded by National Design and Research Forum, The Institution of Engineers (India) by Bronze Medalin Environmental Engineering Discipline in Twelfth IEI Convocation at Bhopal on 16 Oct. 2004)**.
8. Comfortable power less Ladder and Electronic door Lock, 2005.
9. Waste Water Treatment and re-usability, 2008
10. Eddy current Controlled Aircraft Arrester barrier system, 2011.
11. Mr. Sajal Mittal and his team of B.Sc. Engineering Third year have been awarded as second best project in project competition held at BMAS Engineering college, SGI, Farah, Mathura in National level SGI Technical Fest Sukrut – 2011. Prof. D.K. Chaturvedi Guided this project as Design Engineering and Theme Development (DETD) project on wheat Preservation using electric Field, 2011. (**Awarded in National Project Competition at BMAS**, SGI, Farah).

COURSES TAUGHT

1. At B.Sc. (Engineering) Level-

EEM201 Basic Electrical Engineering – I
EEM507 Electrical Technology
EEM607 Control Systems
EEM305 Analog & Digital Computers
EEM702 Utilization of Electrical Power & Traction
EEM711 Machine Design

2. At M.Tech. Level –

EET902 Applied Systems Engineering**,
EET914 Modeling and Simulation Methodologies**, EET904 Software Engineering
PEE112 Fuzzy Systems and Its Engineering Application**

3. Laboratories Handled –

EEM703 Power Systems Lab
EEM504 Machines Lab* EEM608 Controls Lab
EEM506 Electrical Technology Lab* EET947 Modeling & Simulation Lab*
EET948 AI Lab

* Lab Material Developed.
** Course Material Developed

RESPONSIBILITIES

A. **Convener,** Faculty Placement Cell, Faculty of Engineering, D.E.I., Dayalbagh, Agra, July 2005- July 2007.

i. **Attended Tata Consultancy Services (TCS) Campus Placement meet (Sparsh) at Gurgoan from 13-14 Feb. 2007.**

B. **In-Charge** Table Tennis from 1993-2005.

C. **Asst. In-Charge** Faculty Exam from 1995-2000.

D. **Member** of Time Table Committee from 1995-2001.

E. **Member** Building Cleaning Committee from 1995-2001.

F. **In-Charge** Computer Aided Design Cell form Oct. 2000 to 2001.

G. **Advisor** (Electrical Engineering) Students" chapters, The Institution of Engineers (India), Faculty of Engineering, DEI, Dayalbagh, Agra, from July 1999- till date.

H. **Co-convener**, Faculty Training and Placement Cell, Faculty of Engineering, DEI, Dayalbagh, Agra, from Sept. 2003 - 2005.

I. **In-Charge** Educational Technology Lab, 1999- till date.

J. **Coordinator** Work Experience Course at Faculty Level from 1999-2005. K. **Proctor,** B.Sc. (Engg.) I year.

ACADEMIC ACTIVITY

I. Paper setter

B. Meerut University, Meerut.
C. Dr. R.M. L. Avadh University, Lucknow
D. Dr. B.R. Ambedkar University, Agra
E. D.E.I. (Deemed Univ.), Agra.
F. Gurukul Kangadi University, Haridwar, Uttaranchal. G. Jiwaji University, Gwalior.
H. Aligarh Muslim University (AMU) I. Jamia Milia Islami (JMI).

II. Examiner for Practical Exams

A. Madhav Institute of Technology and Science (MITS), Gwalior. B. Jamia Milia Islamia Institute of Technology, Delhi.
C. Aligarh Muslim University, AMU. D. Bundelkhand University, Bareli.
E. DuaDayal Vocational Educational Institute, Ambedkar University, Agra.
F. Azad Institute of Engineering & Technology, Dr. R.M. L. Avadh Univ., Lucknow.
G. Faculty of Engineering and Technology, Bichpuri, Dr. B.R. Ambedkar University.
H. MotiLal Nehru Regional Engineering College, University of Allahabad, Allahabad.
I. D.E.I. Technical College, Dayalbagh, Agra.

Summer / Winter School / short term courses Attended

1. A Course on **dBASE- III plus (Computer),** at D.E.I., Dayalbagh, Agra, May 22-June 26, 1989.
2. A Short Term Course on **Artificial Neural Network Applications to Power Systems**, at Indian Institute of Technology(under Q.I.P.), Kanpur, June 14-19, 1993.
3. Two Weeks Summer School on **Emerging Trends in Control Systems**, at JNTU college of Engineering, Kukatpally, Hyderabad, sponsored by AICTE, New Delhi, May 1-13, 1995.

Virtual Power Lab Development

Prof. Chaturvedi and his team developed a virtual lab in the area of electrical power systems under the initiative of MHRD, Govt. of India. The purpose of this lab is to help the students of engineering colleges where quality labs/staff not available or wants to do engineering through correspondence or in distance mode. The home page of virtual power lab is given below

Symposium/ Workshop /short term courses organized

1. **Short term course** on ***FUZZY SYSTEMS***, Organized under Cell for Applied Systems Engineering and Sciences (CASES), D.E.I., Dayalbagh, Agra, 30th March - 4th April 1998, at Faculty of Engineering, D.E.I., Dayalbagh, Agra.
2. **UGC Sponsored Symposium** on **Ethics and Moral Values: New Dimensions in Technologically Developed World** organized by Students' Chapters, IE(I) at Faculty of Engineering, D.E.I. Dayalbagh, Agra, on 2nd Nov. 2003.
3. Under Celebrations of 85 Years of Education in Dayalbagh, Faculty of Engineering, D.E.I. organized a **S**eries of Workshops on **E**thics and **V**alues in **S**ocial Service, **A**griculture, **T**heology **(SEVA SAT - 2004)** in the memory of the beloved Founder Director of Dayalbagh Educational Institute (Deemed University), Dayalbagh from April 6 to May 18, 2004.

   i. First Workshop on **Theology** was held at Faculty of Engineering, D.E.I. on 6th April 2004. Prof. P. Sriramamurti, Retd. Prof. of Sanskrit, Andhra University and Incharge, Divinity Forum, Dayalbagh and Shri Krishanand ji delivered keynote addresses and explained What is Theology, Why Theology and the Relevance of Theology in the present world. More than **two hundred** staff members of the institute and Scholars from outside participated in the workshop.

   ii. Second Workshop on **Ethics, Values and Social Service** was organised by the Faculty of Social Sciences on 13th April 2004. **Prof. Ovans M. Lynch**, University of New York, USA in his keynote address focused primarily on Ethics in research on human subject. He cited various

examples of studies on Human subject in USA and discussed the laws, which were enforced from time to time to maintain the ethical code while doing such research. The second keynote speaker, Prof. Rajeshwar Prasad, Ex-Director, Institute of Social Sciences, Agra University spoke on Ethics, Morality and Values. He emphasized that the code of ethics cannot be imposed externally and cannot be regulated by any external authority. It is to be self-imposed. About **ninty** persons participated the workshop.

iii. Third Workshop on **Professional Ethics** was organized by the Faculty of Science, D.E.I. on 20th April 2004. The session was chaired by Prof. R. N. Mehrotra, Retd. Prof. of Education, University of Delhi. Prof. D. K. Hazra of S.N. Medical College and Col. S.K. Mehta, Security Officer Dayalbagh, delivered keynote addresses. **Dr. Hazra** presented a discourse on **Professional Ethics in Medicine**. **Col. S.K. Mehta** enlightened the forum on **Professional Ethics (Defence)**. Over **seventyfive** teachers and experts participated in the workshop.

iv. Faculty of Commerce, D.E.I. organized the Fourth Workshop on **Ethics, Agriculture and Religion** on 27th April 2004. Shri Subedar Singh ji, General Manager, Dayalbagh Agriculture Farm in his presidential address emphasized the impact of working with hands in Agriculture Farm on physical, mental and spiritual development. According to him there is a strong relationship between *Krishi* and *Rishi*. He also suggested that the Agriculture operation must be a core course compulasry for all undergraduate students. Other speakers in the workshop were Prof. Chandan Lal Parashar, K.N. College, Agra University, Dr. B.L. Vats, R.E.I. College, Dayalbagh, Agra and Prof. D. Anand Rao, Ex-Head of Electrical Engineering Department, Faculty of Engineering, D.E.I. Prof. Rao presented a critical account of the merits and demerits of eating vegetarian and non-vegetarian food from religious point of view. **Fiftyfive** participants attended the workshop.

v. The fifth Workshop on **Linkage between Religion and Future of Mankind** was oragnised by Faculty of Education, D.E.I. on 3rd May 2004. Prof. P. S. Satsangi, Prof. and Ex-Dean, I.I.T. Delhi, Ex-Director, D.E.I., and Chairman, Advisory Committee on Education in Dayalbagh Graced the workshop. Prof. Jai Prakash, Sagar University (Retd.) was the Chief Guest and Prof. P.K. Kalra, I.I.T. Kanpur, chaired the session. Er. Dharam Pal Satsangi in his key note address said "Spirituality is driven by compassion and love." Prof. P. Sriramamurthi, Prof. of Sanskrit (Retd.), Andhra University and Incharge, Divinity Forum, Dayalbagh spoke on **Teaching of Religion for the Development of an Integrated Personality.** Shri Krishnand ji referred to the entire gamut of Hindu Shastras and the systems of Indian Logic. More than **two hundred** teachers of D.E.I. and outside experts attended in the workshop.

vi. The sixth Workshop on **Teachings of Bhagwat Geeta and Religions of Saint** was oragnised by Faculty of Engineering, D.E.I. on 12th May 2004 under the Chairmanship of Dr. Prem Piara Satsangee, Vice President, RS Sabha, Dayalbagh, Agra. Dr. Satsangee in his presidential address said that the 21st century can be called the century of brain where material force of globalisation are leading to wealth rather than moral values. He compared the teachings of the Bhagvad Gita and Sant Mat and remarked that these will help the youth to understand vagaries of mind and their control with spiritual practices (Sadhana). Prof. D. A. Sawroop, Ex-Principal Dayalbagh Engineering College, talked on Spiritual Quest and True

Religion. His speech was based on certain philosophical questions like Who Am I? What is the Aim of Life? O**ne hundred ninty** participants attended in the workshop.

vii. The concluding workshop of the series was held in R.E.I. Hall, D.E.I. on 18th May 2004. Prof. Jai Prakash, Retd. Prof. Sagar University, Shri Prem Prashant, IAS, Chandigarh and Shri M.A. Pathan, President, Tata Serivces, New Delhi delivered keynote addresses and our honorable Director, Prof. S.S. Bhojwani, chaired the session. Prof. Jai Prakash discussed the role of Ethics and Moral Values in our daily life. Shri Prem Prashant co-related Ethics and Values with Spiritual Background of Human Being. Shri Pathan said that Professional Ethics, Moral Values and Religion have a common chord and hence are closely interlinked. Prof. Bhojwani recalled the following words of His Holiness Mehtaji Maharaj on professional ethics:

- We should be fully conscious of our duties and discharge them well without sparing any effort,
- We should observe humility in our daily conduct,
- We should keep perfect courage and never allow weakness and defeatism to enter our mind,
- We should never lose our common sense and sense of fair play,
- We should be sincere and affectionate in our conduct towards our friends and relatives, and
- We should treat students like our children.

4. A Three Days Short Term Course on Modeling and Simulation of Systems under Industry Institute Partnership Cell, Faculty of Engineering, D.E.I., Dayalbagh, Agra from 22-24 March 2005.
5. Dr. D.K. Chaturvedi is organized a short term course of four weeks at Aerial Delivery and Research Development and Establishment (ADRDE), DRDO Lab, Government of India, Agra Cantt. Agra on Modelling and Simulation of Aeronautical Systems Using Matlab from 21st Jan. to 15th Feb. 2008. This course is jointly organized by D.E.I. and ADRDE, Agra and 30 ADRDE scientists participated in this course. The purpose of this course was four folds:
   - To introduce the basic concepts of modeling
   - Latest state-of-art in modeling.
   - Introduction to Matlab / Simulink and hands on experience
   - Simulation of real life systems using Matlab / Simulink

   Many eminent professors delivered invited talks besides the convener Dr. D.K. Chaturvedi in this course, namely: Prof. P.K. Kalra, I.I.T. Delhi, Prof, V.C. Prasad Ex-Prof. I.I.T., Delhi, Prof. Z.A. Jaffery, Jamia Millia Islamia, New Delhi, Prof. M.A. Khan, Anand Engineering College, Agra, Dr. Vishal Sahni, D.E.I., Dayalbagh, Agra. The following members helped in organizing the course and lab sessions Mr. Ashish Khandelwal, BMAS, Agra, Mr. Arunesh Kumar, Delhi, Mr. Anand Sinha, D.E.I.
   We were grateful to the ADRDE staff for providing full support and co-operation during the organization of this course namely by Mr. P.C. Khandelwal, R.K. Sharma, R.P. Goel, Kunwar Bahadur and Manohar Kumar. At last, We wish to express our sincere thanks to Director, ADRDE Mr. B.R. Gupta for giving us the opportunity to organize this course and provided full support in terms of financial aspects and resources.
6. A short term course is organized at Aerial Delivery research and development Estanblishment (ADRDE) Agra on the topic „Ma t lab and i ts ae r o naut ical Ap p lica tio n s‟ , from 1-2 Sept. 2007. Dr. D.K. Chaturvedi was Convener of the course. Based on the success of this course they invited to plan some long term program to train their scientist and staff.

7. A short term course Jointly Organized by D.E.I. Dayalbagh and Faculty of Engineering and Technology, Agra College, Agra on Matlab and its application at from 24-Nov. 2009 to 26-Nov-2009. There were 70 participants (students and staff of college). The course was inaugurated by Dr. Manoj Rawat Principal, Faculty of Engineering and Technology, Agra College Agra. The chief Guest was Prof. V.K. Sehgal, Head Dept. of Computer Science, Jhansi. Dr. Yashpal Singh Head, Dept. of Computer Sciences, BIT, Jhansi also delivered a invited talk in the course.

8. Prof. Chaturvedi is member Organizing Committee of one Day workshop on Virtual Labs: An Initiative of MHRD under the National Mission on Education through ICT (NMEICT) at Dayalbagh Educational Institute, Dayalbagh, Agra, on 22nd Jan 2011
9. Prof. Chaturvedi as Convener and his team organized a Two Day National Workshop on LabVIEW, Matlab and Their Applications" at Faculty of engineering, D.E.I., Dayalbagh Agra, 25-26 March 2011. In this course, there were 135 participants from different colleges like JSS, Noida, IIMT, Meerut, JMI, New Delhi, 7-colleges from Agra, IITM & GIIT, Gwalior, IETMJP, Bereilly, BSA, Mathura etc. The participants are 40% staff and 60% Students. Prof. Ibraheem, JMI New Delhi was the chief Guest of the inaugural function and Prof. BK Panigrahi, IITD, Prof. Tarikul Islam, JMI, Prof. Ayub Khan, Prof. DKC, and Mr. Vaibhav Vashishtha Expert from NI Systems India Ltd. 3- hrs spent on Practical sessions.

5. Prof. Chaturvedi has organized expert in a one day workshop at Agra College Agra on Virtual Labs on 22 April 2011. Prof. D.C. Dhodkariya Head ECE dept. was the chief Guest and Dr. R.K. Srivastava as president of the workshop.

5 Prof. Chaturvedi has organized expert in a one day workshop at Agra College Agra on **Virtual Labs** on 22 April 2011. Prof. D.C. Dhodkariya Head ECE dept. was the chief Guest and Dr. R.K. Srivastava as president of the workshop.

6. A one day workshop has been organized at DEI on 4-Aug.-2011 on Virtual power lab under the aegis of students' Chapters of The Institution of Engineers (India) , Kolkata under the chairmanship of prof. D.K. Chaturvedi. .

LECTURES DELIVERED

1. Indian Oil Corporation, Faridabad on *Non - Linear System Identification Using Neural Networks*, on Aug. 17, 1995, in the Workshop on Applications of Neural Networks.
2. NIIT Ltd. Delhi on *Development of Fuzzy Simulator*, in Pre-conference tutorial of Int. Conf. on Cognitive Systems (ICCS '96) on 12 Dec. 96. Laboratory Session also has been conducted for the participants.
3. D.E.I., Dayalbagh, Agra, on *Simulation Model of HIV infected Population*, in Training Camp organized by National Service Scheme on 25 Dec. 1996.
4. Lab Demo Session conducted in the short-term course on "Neural Network and Fuzzy Logic Applications in Manufacturing (NANFEM '96) Organized by D.E.I., Dayalbagh, Agra, Jan 11-13, 1996.
5. Indian Institute of Technology, Kanpur on *Introduction to Matlab*, Aug. 1997.
6. Indian Institute of Technology, Kanpur on the following topics:
   a. *Basics of Fuzzy Logic*
   b. *Applications of Fuzzy Systems*
   c. *Development of Fuzzy Simulator*,

   n the QIP Course on Fuzzy logic and Its Engineering Applications on May 5, 1999.
7. Laboratory session has been conducted for the participants and covered *The Fundaments of Fuzzy Set Approach and the Development of Fuzzy Simulator*,in the QIP Course on Fuzzy logic and Its Engineering Applications at Indian Institute of Technology, Kanpur on May 5, 1999.
8. Regional Engineering College, Hamirpur (H.P.) invited to deliver a guest lecture on Fuzzy Systems and Neural Networks, on Nov. 15, 1999.
9. Indian Institute of Technology, Kanpur on the following topics:
   a. *Design of efficient Neural Network models*
   b. *Development of Compensatory Neural Networks c. Applications of ANN in Power Systems,*
   d. *Integration of Fuzzy systems and ANN*
   e. *Lab session*

   in the QIP Course on Artificial Neural Networks and Its Engineering Applications on from June 26- July 1, 2000.
10. Aerial Delivery Research and Development, Agra Cantt. Agra on the following topics:
    a. *Artificial Neural Network: An Introduction b.Flexible Neural Networks*

    On 25.8.2000.
11. Faculty of Engineering and Technology, Raja Balwant Singh College, Bichpuri, Agra on the following topics:
    a. *An Introduction to Fuzzy Logic and Fuzzy Systems*
    b. *Neuro - Fuzzy System*

    On 21.11.2000.
12. Indian Institute of Technology, Kanpur on *Applications of neural networks on Business management*, in the QIP Course on from May 24, 2000.
13. Faculty of Engineering and Technology, University of Jamia Millia Islamia, Delhi, *MATLAB and its Applications*, on 4-9-2001.
14. Anand Engineering College, University of Dr. Bhim Rao Amedkar, Agra, *Introduction to MATLAB and its Applications*, on 15-9-2001.
15. Hindustan Institute of Management & Computer Studies, Agra Mathura Road, Farah *Introduction to Soft Computing and its Applications*, on 21-9-2001.
16. BAMS Engineering College, Farah, Agra, *Applications of Matlab in Computer Aided Machine Design* on 1.12.2002.
17. Faculty of Engineering and Technology, University of Jamia Millia Islamia, Delhi, *Power System Stabilizers*, on 10-2-2003.
18. Delivered a keynote address on Super Computers and commonsense Computers at 3rd All India Technical Festival CEREBRUM 2003, Anand Engineering College, Agra, 7th & 8th March 2003.
19. Invited as member of expert panel for a workshop on *Curriculum development of Soft Computing* at Indian Institute of Technology, Kanpur, 5-6 July 2003.
20. Delivered lectures on 16-18 July 2003 on the topics of
    i. Neuron Dynamics and Effect of Activation and aggregation function on it.
    ii. Effect of error functions on Training performance of Generalized Neuron.

    and a lab session on in a short term course on Computational Neuroscience from

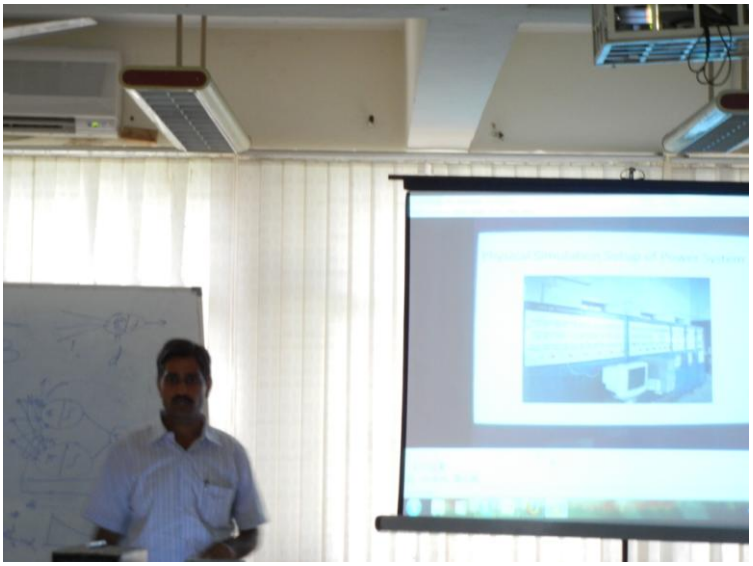
7 to 18
July, 2003.

21. Delivered a lecture at Arial Delivery Research and Development Establishment, Agra Cantt, on the topic of Modeling and Simulation of Systems, on Sept. 12, 2003.
22. Delivered an Expert lecture in AICTE- ISTE sponsored short term course on ANN and Fuzzy Logic Applications to Electrical Engineering on Jan. 20, 2004, at Dept. of Electrical Engineering, Madhav Institute of Technology and science, Gwalior-5.
23. Delivered an Expert lecture on short term course on Basic Concepts of Artificial Neuron Model and Its Variations on Feb. 20, 2004, at Dept. of Electrical Engineering, Faculty of Engineering, Jamia Millia Islamia, New Delhi.
24. Delivered an invited lecture in All India Symposium on Recent Trends in Power Generation Transmission and Distribution Systems on Power Systems Stabilizer using GNN on April 18, 2004, at The Institution of Engineers (India) Aligarh Local Centre, AMU, Aligarh.
25. Talk on „Fuzzy Logic Approach and its Applications" on Science Day organized by ADRDE, Agra under the Flagship of Agra Science Forum and Aeronautical Society of India on 28th Feb. 2006.
26. Talk on „Generalized Neuron and Its Applications", in The Workshop on MATLAB at Hindustan College of Science and Technology, Agra-Mahura Highway, Farah, Mathura,29th April 2005.
27. Invited for Inaugural function of Short term courses on MATLAB and Its Real Engineering Applications, from 9-3-07 to 11-3-07. Also delivered a talk on Matlab and its applications in Systems Modeling and Simulation.
29. Delivered 40 Lecture on modeling and Simulation at I.I. T. Kanpur for generating resource material for distance e-engineering learning from 23-30 March 2007.
30. Delivered an invited talk in the National Level Technical and Cultural fest CEREBRUM" 08 at Anand Engineering College, Keetham, Agra on 5th March 2008.
31. Delivered an invited talk on the occasion of National Workshop on Science and Technology – Future Perspectives, on June 15-16th , 2009, at Nagaji Institute of Technology and Management, Gwalior (M.P.).
32. Keynote Speaker in National Conference on Artificial Intelligence and its Applications, Orgnaised by Faculty of Engineering and Technology, RBS College, Bichpuri, Agra (U.P.) on 12-13 Sept. 2009. He has given a talk on „Soft Computing and its Engineering applications" .
33. Delivered a talk on **Soft computing and Intelligent controller** in Hindustan College of Science and Technology, Farah, Mathura on 18th Oct 2009.
34. Delivered a talk on **Adaptive controller** in Anand Engineering College, Agra on 15th Oct 2009.
35. Director, Defence Reaserch & Developement Establishment, Jhansi Road, Gwalior was invited Prof. D.K. Chaturvedi to give a talk in a one week Training program for its scientists from 18th Jan 2009 (Monday) to 22nd Jan 2009(Friday) on the topic " Bio- mathematics and Computer Applications". The topic was F**ield Data Selection Criteria for statistical consideration in scientific studies**.
36. Prof. Chaturvedi was invited to deliver a talk on **soft computing Techniques: basics and their applications** in an AICTE approved staff Development programmeon Soft Computing Techniques and their Engineering applications on 1st Feb. 2010, organized by Dept. of Electrical Engineering, Madhav Institute of Technology and Science, Gwalior (M.P.) from Jan 25th to Feb, 5th 2010.
37. Key note speaker in the National Conference on „**Modern Technologies for Betterment of Human Life**" , 26, June 2010, Nagaji Institute of Technology & Management, Thakur Baba Campus, Jhansi Road, Sitholi, Gwalior (M.P.).
39. Prof. Chaturvedi visited Kyushu University, Fukuoka, Japan from 21-23 Nov. 2010 and interacted with the staff and students. Discussed the Latest trend in Soft Computing and controls. He has also presented a paper on Load Frequency Controller using Polar Fuzzy Controller at International Congress Center, Fukuoka and discussed the practical aspects of it.
40. He had also visited the National University of Singapore (NUS), Singapore on 25-Nov. 2010.
41. Prof. Chaturvedi delivered a talk on recent trends in Optimal Control at Anand Engineering College, Mathura Road, Agra on 7th Sept. 2010. He also delivered an expert talk in B.S.A. college of Engineering & Technology, Mathura on the topic Fuzzy logic Application in System Design on 16th Nov. 2010.
42. Prof. D.K. Chaturvedi delivered a talk on "Mechanical system simulation" in Anand

Engineering College, Mathura Road, Agra on 18 Jan 2011.

43. Prof. Chaturvedi invited as an External Expert of Recruitment Board on 16th May 2011 at K.P. Engineering College Agra – Firozabad Road, Agra.

44. Prof. Chaturvedi delivered a talk on 15 July 2011 on the topic of Power system stability and Neural approach in AICTE sponsored Staff Development Program on "Flexible AC transmission Systems and Power System Voltage Stability: Recent Advances "at Delhi Technological University, Delhi during July 11-22, 2011.



45. He had also discussed about the issues related with virtualization of Electrical Power system Laboratory at DTU, Delhi. The concept is well appreciated by teaching faculties of different engineering colleges of the country.

Prof. Chaturvedi with his wife while discussing with students of Faculty of Technology, Kyushu University, Fukuoka, Japan.

RADIO TALK

1. Radio Talk delivered on All India Radio on the topic of Supercomputers *and Common sense 11-3-computers*, relay on Jan. 14, 2001 at 7.00 pm., duration 7 minutes.

Courses Introduced and material compiled

1. Professional Ethics and Moral Values as core course at University P.G. Level
2. Fuzzy Systems and Its Engineering Application at M.Tech. Level.

3. Modelling and Simulation Methodologies at M.Tech. Level.
4. Modelling and Simulation Lab at M.Tech. Level
5. Delivered 40 – lectures at I.I.T. Kanpur to generate resource material on „Modeling an Simulation" for distance engineering.

SOCIAL SERVICES

1. Chairman, **Satsang Summer School Agra** 22 May to 14 June 2006.

2. Co-ordinator, **DayalNagar Welfare Committee**, Dayalnagar, Dayalbagh, Agra – Jan. 2006.

3. Sarpanch of Dayal Nagar Colony (2005-2008).

4. Panch of Dayal Nagar Colony (1990-2001).

5. Asstt. In-charge Security of Dayalnagar colony (from April 1997 to April 2000).

6. Unit In-charge (honorary) of **Dayalnagar Satsangis social welfare society** (Socks Unit), Dayalnagar, Dayalbagh, Agra - 5

7. Honorary Secretary, Agra Satsangis Social Welfare Society; (Continue till Aug. 1996).

8. Honorary In-Charge Socks Manufacturing Unit.

9. Member of **Dayal Nagar Welfare Society** (1999 -2005).

10. Member of *Chara* Party for providing fodder to animals of Gowshala of R.S. Satsang Sabha, Dayalbagh, Agra (since 1989- till date).

11. Member **D.E.I. Counseling Centre and Clinic** for Business Solutions. The purpose of this centre is to provide on technical and managerial problems related to small and medium size business (2005 - .

12. Core Member of **Agra Science Forum** and its activities. This forum involves scientists and professional from all scientific streams. This forum generates awareness and gives scientific input to various demand groups / industries for social and economic development of the city of Agra. The forum helps in keeping the Agra clean and green.

13. Executive Member, Committee of management of **The D.E.I. Employees Credit & Thrift Society Ltd.** , Dayalbagh, Agra from Nov. 2006 to .

14. Co-investigator**; Bio-Medical Research Project**.

Dayalbagh Educational Institute Soft computing Engineering Laboratory (DEISEL)

Soft Computing Group

- **Professor Incharge**
  - 4 Teaching Staff members
  - 4 Non-Teaching Staff Members
  - 5 Ph.D. Students
  - 6 M. Tech. Students
- **Aim**

- To exploit the tolerance for imprecision uncertainty, approximate reasoning and partial truth to achieve **tractability, robustness, low solution cost,** and **close resemblance** *with human like decision making*
- To find an approximate solution to an imprecisely/precisely formulated problem.

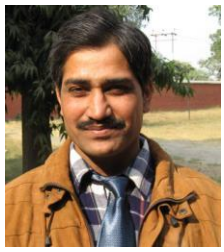
- **Challenge**

- The challenge is to exploit the tolerance for imprecision by devising methods of computation which lead to an acceptable solution at low cost. **This, in essence, is the guiding principle of soft computing.**

- **Work done**
  - **Published**
    - **Books - 5**
    - **Journal Papers – 46**
    - **Conference Papers - 89**
  - **Reveiwed Int. J. Papers – 45**
  -

Dayalbagh Educational Institute Soft Computing Edge Cutting Technology Lab (DEISEL)

(DEISEL)

Ph.D.





Supporting staff



UNIVERSITY OF CALGARY

Christian-Albrechts-Universität zu Kiel

Imperial College London

ADRDE Lab Agra

Jamia Millia Islamia
A CENTRAL UNIVERSITY

A. Variations in simple ANN

1. Simple feed-forward back-propagation ANN with sum neurons c - codes (ANN_sigma.c)
2. Feed-forward back-propagation ANN with Product neurons c - codes (ANN_pi.c)
3. Feed-forward back-propagation ANN with Sigma at hidden layer – Product at output layer neurons c - codes (ANN_sigma_pi.c)
4. Feed-forward back-propagation ANN with Product at hidden layer – Sigma at output layer neurons c - codes (ANN _pi_sigma.c)
5. Feed-forward back-propagation ANN with Product neurons with Gaussian Threshold function c - codes (ANN_pi_gaus.c)
6. Feed-forward back-propagation ANN with Product neurons with tangent hyperbolic Threshold function c - codes (ANN_pi_tanh.c)
7. Feed-forward back-propagation ANN with summation neurons with Gaussian function at hidden and linear at output c - codes (ANN_sigma_gaus_lin.c)
8. Feed-forward back-propagation ANN with summation neurons with sigmoidal function at hidden and linear at output c - codes (ANN_sigma_sig_lin.c)
9. Feed-forward back-propagation ANN with summation neurons with tanh function at hidden and linear at output c - codes (ANN_sigma_tanh_lin.c)
10. Feed-forward back-propagation ANN with summation neurons with guassian function c - codes (ANN_sigma_gaus.c)

B. Development of Generlaized Neuron and its variations

1. Original Implementation: Generalized Neuron (GN) model c-code (GN.c)
2. GN Variations:

i. GN Model0 (GN_model0.c)
output = osigma*wsigma + opi*wpi ii. GN Model1 (GN_model1.c)
output = osigma*wsigma + opi * (1-wsigma)
iii. GN Model2 (GN_model2.c)
output = (Osigma^wsigma)* (opi ^ (1-wsigma))
iv. GN Model3 (GN_model3.c)
output = osigma * wsigma + (osigma+opi-osigma*opi)*(1-wsigma)
v. GN Model4 (GN_model4.c)
output = (osigma ^ wsigma) * ((osigma+opi- osigma*opi)^(1-wsigma))
vi. GN Model5 (GN_model5.c)
output = sqrt(osigma*opi)*wsigma + (osigma+opi)*(1-wsigma)/2.0
vii. GN Model6 (GN_model6.c)

output = sqrt(osigma*opi)^(1- wsigma)* (osigma+opi)/2.0)
^ (1- wsigma)

viii. GN Model7 (GN_model7.c)

3. Revision: Generlaized Matlab ver. 6.5 Code GN1.m

4. Benchmark Testing: Benchmark.m i. Parity Problem
   ii. Voting Problem iii. Spiral Problem
   iv. Mackey Glass Problem
4. GN Applications in
   i. Machine Modeling
   ii. Power System Control
   iii. Electrical Load Forecasting iv. Channel Equalization
   v. Robotic Control
   vi. Air craft Landing Control

C. Development of Fuzzy Expert Systems
1. Original Implementation: Fuzzy System model c-code (FS.c)
2. Variations:
   i. Application of different Aggregation Operators ii. Application of different Composition Operators iii. Application of different Implication Operators
3. FS Application in
   i. Machine Modeling ii. Load Forecasting
   iii. HIV/AIDS Population forecasting Problem

D. Development of Evolutionary Algorithms
1. Original Implementation:
   i. Simple Genetic Algorithm (SGA.m)
   ii. Modified GA-Fuzzy Systems matlab (GAF.m)
2. EA Applications:
   i. Load Forecasting
   ii. Optimal Power Flow Problem iii. Transmission Pricing
   iv. Congestion management

E. Integration of ANN, FS and EA
   i. Original Implementation: fuzzy Aggregated GN learning using GA+FS integrated Approach Matlab Codes. NEW: F. Quantum Neuron

Prof. Chaturvedi with Nobel Laurel Prof. Richard R. Ernst. The Nobel Prize in Chemistry 1991.

Prof. Chaturvedi with Prof. Herman Peter Roe, Univ. of Waterloo, Canada, Prof. Jack Ellis, York Univ. Toronto, Canada, Prof. Gerog Klir.

Prof, Chaturvedi with Prof. Mahesh Pandey, Univ. of Waterloo.

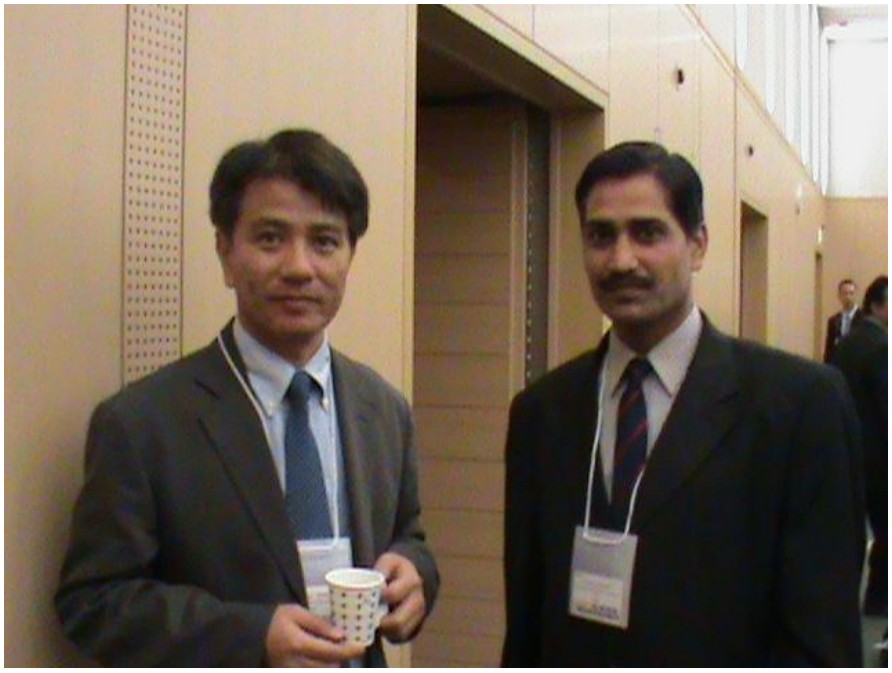

Prof. Chaturvedi with Mr. Atul, Germany

Prof. Chaturvedi with Mrs. Tsai Hui Chu, Singapore in an Int. Congeerence on Spiritual Consciousness at DEI, Agra on Nov. 13. 2010.

Prof. Chaturvedi delivering a talk at NUS, Singapore on 26 Nov. 2010.

Prof. Chaturvedi on Dias With Prof. Surat Kumar, Mr. Anoop Srivastava, Chief, GRP, Indian Railways, Mr. V. Prem Swaroop, Head (HR), SRF.

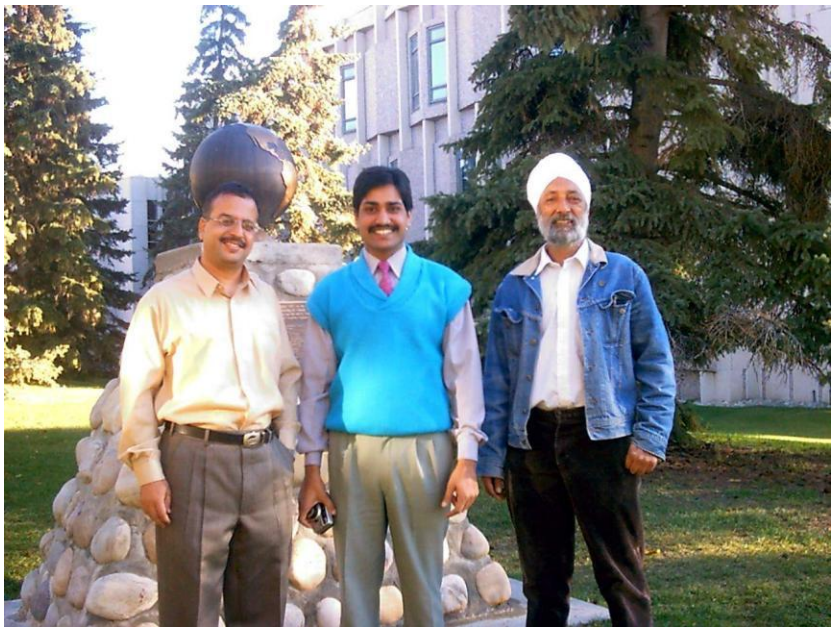

Prof. Chaturvedi with Mr. Frisso at Kiel, Germany on June 2007.



Prof. Chaturvedi with Prof. Morikazu Nakamura, Dept. of Information Engineering, Univ. of the Ryukus, Okinawa, Japan at Int. Conf. TENCON 2010.

Prof. Chaturvedi with Prof. Seiya Abe, The int. Centre for the study of East Asian Development, Univ. of Kitakyushu, Pennsylvania, at Int. Conf. TENCON 2010.

Prof. Chaturvedi with Prof. V.G. Das, Director, DEI, Mr. Prem Das, VP, DSCL, Kota and Mr. Sahab Das, TPO.


Prof. Chaturvedi with Prof. Keler and Prof. Karrari at Univ. of Calgary, Canada, June 2002.

Prof. Chatruvedi with Mr. Garwin Hancock, Prof. Malik, Prof. Karimpore, and Prof. Karrari at ICT building of Univ. of Calgary, AB, Canada.

Prof. Chaturvedi With Prof. P.S. Satsangi on Engineers" Day.

Prof. Chaturvedi with Mr. Balraj Gupta, Director, ADRDE, Agra.


Prof. Chatuvedi with Prof. H.H.P. kohly, Jackson University, Jackson, USA.