

CURRICULUM VITAE

DR. S. V. DUDUL

Professor and HOD

Department of Applied Electronics

(Faculty of Engineering & Technology)

Sant Gadge Baba Amravati University

Amravati

C.V. of Prof. Dr. Sanjay Dudul, Professor of Applied Electronics and HOD,
P.G. Dept of Applied Electronics, Faculty of Engineering & Technology,
Sant Gadge Baba Amravati University, Amravati – 444 602

Summary at a glance

- ❑ Name : Dr. Sanjay V. Dudul
- ❑ Date of Birth : 28th August 1964
- ❑ Present Designation : Professor of Applied Electronics and Head of the Department of Applied Electronics, Faculty of Engineering & Technology, Sant Gadge Baba Amravati University, Amravati – 444 602 (Maharashtra)
- ❑ Educational Qualification:
 - B.E. (Electronics Engg.), First Class with Distinction, 1986, Nagpur University, GOLD MEDAL
 - M.E. (Branch: Electronics, Sub branch: Computer Applications), 1989, Shivaji University, First class with Distinction, First in University
 - Ph.D. Faculty of Engg. & Technology, (A Topic of Computational Intelligence), 2003, Amravati University, Amravati
- ❑ Scholarships: Recipient of State level Merit Scholarships and National Merit Scholarships from 1974 to 1986 (From Std. IV until the completion of B.E.)
- ❑ GATE Score: 89% in 1986, Received GATE stipend from 1987 to 1989 (During M.E.)
- ❑ Teaching Experience : 23 years
- ❑ Administrative Experience : 8 Years
- ❑ Research Experience : 10 years

PUBLICATIONS

Average Citation Index of Dr. Dudul (Computed by SCOPUS, Elsevier, 'h' index) : 4.0

Average Impact Factor of Journals: 2.541

- ❑ No. of Research Paper/Article Publications: 128+
 - A. Original (Refereed): 111
 - International/National Journals : 65
 - International/National Journals (In Press): 12
 - International/National Journals (Under Review): 12
 - International Conference Proceedings :43
 - Amravati University Research Journals: 03
 - B. Review: 17

- National Conference Proceedings : 17
- Other articles : 04
- ❑ No. of Patents filed & published : 02
- ❑ No. of Students Awarded Ph.D. : 07
- ❑ No. of Students Submitted Ph.D. : 01
- ❑ No. of Ph.D. Students Supervising : 07
- ❑ Ph. D. student (N. N. Charniya) has been awarded the FIRST PRIZE in Post-PG (Research) category for the best innovative working sensor model in Engineering & Technology at AVISHKAR-2008 (January 8-10, 2009)
- ❑ No. of Workshops Organized on Neural Computing: 05
- ❑ Invited Member of IEEE Computational Intelligence Society, USA
- ❑ Member of International Neural Network Society, USA
- ❑ Reviewer of IEEE Transactions on Neural Networks and IEEE Transactions on Instrumentation and Measurement, USA
- ❑ Invited to Review the research papers submitted to the IEEE Transactions on Neural Networks, USA and IJCNN (International Joint Conference on Neural Networks) - IEEE International Conferences and highly recommended as an expert by *International Neural Networks Society*
- ❑ Mentor for M.S (Software Systems) programme conducted by BITS, Pilani
- ❑ Member of WSEAS (World Science and Engineering Academy and Society) International Working Group on Computers
- ❑ Reviewer of the research papers submitted to the International Journal: Invited to work as a Reviewer for several papers submitted to the Elsevier *Applied Soft Computing International Journal*, U.K.
- ❑ Reviewer of the research papers submitted to the International Journal: Invited to work as a Reviewer for several papers submitted to the Elsevier *Neuro Computing International Journal*, U.K.
- ❑ Reviewer of WSEAS Transactions on Computers
- ❑ Invited to conduct workshops and deliver lectures on Neural Networks at numerous institutions
- ❑ Chaired sessions on Neural Networks at International Conferences
- ❑ Acknowledged as an expert in Neural Networks by international communities/bodies such as IEEE International Neural Network Society, WSEAS (World Science and

Engineering Academy and Society), Elsevier International Journal on Applied Soft Computing

- ❑ Registered Ph. D. Supervisor at Sant Gadge Baba Amravati University, Amravati and Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur
- ❑ Coordinator of Central Instrumentation Cell of Sant Gadge Baba Amravati University, Amravati from 4/7/2005 to 26/3/2007
- ❑ Invited to work as an Adjunct Professor of Computer Engineering at Vishwakarma Institute of Information Technology, Pune – 411 048
- ❑ Instrumental in making proposals for
 - Instruments Maintenance Facility and IMA (under 10th & 11th Plan of the UGC) for CIC of the SGB Amravati University, Amravati
 - Renovation of the CIC (State government of Maharashtra) (Received 70.00 Lakhs from the State Govt of Maharashtra)
 - “Rajiv Gandhi Chair” submitted to the UGC: Diploma and Certificate Courses in Information Technology proposed for the children of the farmers of Vidarbha region
 - “Kabir Chair” submitted to the Ministry of Human Resource and Development, Government of India, New Delhi
 - “Information Communication and Education” submitted to the UGC
 - Advance Diploma in VLSI Design and Embedded System Design for Women submitted to the UGC
 - FAB lab at Sant Gadge Baba Amravati University, Amravati (Received 1.0 Crore from the State Govt of Maharashtra)
 - Reconfigurable Super Computing Lab (FIST, Level 2 Support), DST, Funds Requested: Rs. 9 Crore 96 Lacs (In Process)
- Revised Submission of Major Research Projects
 1. Development of Low-Cost Intelligent Humidity Analyzer/Detector System, SERC, DST (In process)
 2. Developing Ionic Conductive Ceramic Materials for Intelligent Humidity Measurement System, NRB, DRDO (In Process)

Course development

- ❑ Choice Based Credit System curriculum designed & implemented for M. Sc. (Applied Electronics) in the Faculty of Engineering & Technology from the session 2009-10. (*First Choice Based Credit Course of Sant Gadge Baba Amravati University*)
- ❑ Proposal for New Courses submitted to the UGC under XI Plan
 - Five Years Integrated M.E. in VLSI Design & Embedded Systems
 - M.Tech. in Electronic Design and Technology
 - M.Tech. in Biomedical Instrumentation
 - P.G. Diploma in VLSI Design and Embedded Technology
- ❑ Member of Editorial Boards of International Journals:
 1. International Journal of Engineering Research and Industrial Applications ISSN 09704-1518
 2. International Journal of Computer Applications in Engineering, Technology and Sciences ISSN: 0974-3596

3. **International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences ISSN: 0974-3588**
4. **International Journal of Computer Science and Applications ISSN 0974-1003**
5. **International Journal of Electronics Engineering**

FELLOW OF

1. **The Institution of Engineers (India), F 110230-5 (From 2004)**
2. **The Institution of Electronics and Telecommunications Engineers, F 109134 (From 2004)**

CHARTERED ENGINEER OF

The Institution of Engineers (India) (From 2004)

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

Life Member/Senior Life Member:

1. **Indian Society for Technical Education (ISTE), LM 7180**
2. **Computer Society of India (CSI), LM 011**
3. **Indian Science Congress Association (ISCA) (Kolkata), LM 6610**
4. **Instrument Society of India, LM 1357**
5. **Institution of Electronics and Telecommunications Engineers (IETE) M 109134**
6. **Institution of Engineers (India) M 114459/0**

CURRENT RESEARCH ACTIVITY AND INTEREST:

- AI in Pattern Recognition, Prediction and Regression
- Applications of Neural Networks and Support Vector Machines in the development of intelligent systems in engineering and bio- technology
- Machine Intelligence: A Soft- Computing Approach
- Solutions to challenging NP complete problems
- Advance digital signal processing
- Pattern Analysis and Machine Intelligence
- Computational Intelligence
- Bio-medical Signal Processing

Competence in teaching/evaluation of Computer courses:

Artificial Intelligence,
Neural Networks,
Digital Computer Organization & Architecture,
Computer Networks,
Data Communications,
Digital Image Processing,
Digital Signal Processing,
System Simulation,
Machine Learning,
Expert Systems,
System analysis and design,
System Identification,
Programming languages, C and C++

CURRICULUM VITAE

PERSONAL DATA

OFFICIAL ADDRESS : Dr. Sanjay Vasant Dudul,

- **Professor of Applied Electronics and Head of the Department of Applied Electronics, Faculty of Engineering & Technology, Sant Gadge Baba Amravati University, Amravati – 444 602 (Maharashtra)**

Mobile: 091-9420077111;

Email: dudulsv@rediffmail.com, svdudul@indiatimes.com, svdudul@gmail.com

PERMANENT ADDRESS: A3, Yogiraj Apartment, Opp: Labour Court, Paranjape Colony, Camp, Amravati- 444 602 (M.S.), India

Tel (R): 091-0721-2666127, Mobile: 091-9420077111

PLACE & DATE OF BIRTH : Amravati (Maharashtra, India), 28th August 1964

LANGUAGES : English, Hindi, Marathi

EDUCATION :

- 2003** **Ph. D. (Computational Intelligence)**, Faculty of Engineering & Technology, Amravati University, Amravati.
- Thesis on :** **“Study of System Identification and Design: a Neural Network Approach” : a Topic of Computational Intelligence**
- 2002 :** **MSCIT** (Maharashtra State Certificate course in IT) Exam with 92% score
- 1989 :** **M.E.** (Branch: Electronics, **Sub branch: Computer Applications**), Shivaji University, Kolhapur with **Distinction and the First rank**
- 1986 :** **B.E.** (Electronics & Power), Nagpur University, Nagpur. With **Distinction and First Rank**, Recipient of **Gold Medal**

Education:

S. N.	Degree/ Diploma	University/ Institution	Principal Subjects	Class/ Division (%Marks)	Merit/ Awards/ Scholarships	Date of Declaration of Results	No. of Attemp
1	S.S.C.	M.S. Board of Sec. Education, Pune	Mathematics, Science	87% Distinction	National Merit Scholarship	March 1980	Single
2	H.S.C.	M.S. Board of Sec. & Higher Sec. Education, Nagpur	Physics, Chemistry Mathematics	81% Distinction	National Merit Scholarship	March 1982	Single
3	B.E. Electronics & Power	Government College of Engineering, Amravati, Nagpur University	Electronics, Microprocessors, Control Systems	76.4% Distinction	Recipient of GOLD MEDAL from the Institute, Qualified GATE 1986 With 89%	1986	Single
4	M.E. Branch: Electronics (Sub branch: <u>Computer Applications</u>)	Walchand College of Engineering, Sangli Shivaji University, Kolhapur	Computer Applications	72.6 % Distinction	Recipient of GATE Scholarship, First in M.E. Electronics From Shivaji University, Kolhapur	1989	Single
5	Ph. D. in <u>Computational Intelligence</u> (Faculty of Engineering & Technology)	Amravati University, Amravati	“Study of System Identification and Design: a Neural Network Approach”.			Amravati University Gazette Part-THREE, Notification No. 142/2003, Date: 31/07/2003	

TEACHING EXPERIENCE: 23 years

S. N.	Post Held	Name of Department/ Organization	From	To	Basic Payment & Pay Scale	Reason for Leaving
1	Professor of Electronics Engineering and Head of the Department	P.G. Department of Applied Electronics, Sant Gadge Baba Amravati University, Amravati – 444 602	30.9.2008	Present	Rs. 61910	-----
2	Professor (By CAS) of Electronics Engineering and Head of the Department	P.G. Department of Applied Electronics, Sant Gadge Baba Amravati University, Amravati – 444 602	1.12.2007	29.09.2008	Rs. 20,000.00	-----
3	Professor of Computer Engineering and Dean of Research & Development	Vishwakarma Institute of Information Technology, Pune – 411 048	1.5.2007	30.11.2007	Rs. 20,900.00	Offered the post of an Adjunct Professor
4	Head of the Department	P.G. Department of Applied Electronics, Amravati University, Amravati	April, 01, 2004	30.4.2007	Rs. 19100 16400-450-22400	On Lien
5	Professor (By CAS) in Applied Electronics	P.G. Department of Applied Electronics, Amravati University, Amravati	31.7.2003	30.4.2007	Rs. 19100 16400-450-22400	On Lien
6	Reader in Applied Electronics	P.G. Department of Applied Electronics, Amravati University, Amravati	03-01-1995	30.7.2003	Rs. 16400 1200-420-18300	-----
7	Assistant Professor in Electronics Engineering	B.D. College of Engineering, Sewagram, Wardha	01-01-1992	02-01-1995	Rs. 3700-5700	For Better Prospects
8	Lecturer in Electronics Engineering	B.D. College of Engineering, Sewagram, Wardha	03-08-1990	31-12-1991	Rs. 2200-4000 Rs. 2350	-----
9	Lecturer in Electronics Engineering	B.N. College of Engineering, Pusad, Distt. Yavatmal	27-01-1990	27-07-1990	700-1600 Rs. 940/-	For Better Prospects
10	Lecturer in Electronics Engineering	Walchand College of Engineering, Sangli	*7/1/1988 07-07-1988	*6/7/1988 25-01-1990	700-1600	For Better Prospects
11	Lecturer in Electronics Engineering	B.N. College of Engineering, Pusad, Distt. Yavatmal	06-10-1986	01-05-1987	700-1600 Rs. 700/- at start	For Higher Education
12	Assistant Engineer	Hindustan Aeronautics Ltd., Ozar Town-ship, Nasik [Quality Control, Overhaul]	01-09-1986	05-10-1986	900-50-1400 Rs. 900/- at start	For Better Prospects

* Assigned a teaching workload on part-time basis for the said duration during the completion of M. E.

Administrative Experience: 08 Years

Post held & Name of Department/ Institution	Pay scale	From	To	Total Period	Reasons for leaving
Professor and Head of the Department of Applied Electronics, Faculty of Engineering & Technology, Sant Gadge Baba Amravati University, Amravati	16400- 22400	01-04- 2004 01-12-	30-04- 2007 Present	03 Years	On Lien

		2007			
Head of the Department of Electronics Engineering, B. D. College of Engineering, Sevagram, Wardha	3700-5700	14-09-1992	16-11-1994	02 years	Better prospects

From September 30, 2008 to present: Professor and Head of the Department of Applied Electronics, Faculty of Engineering and Technology, SGB Amravati University, Amravati

From December 01, 2007 to September 29, 2008: Professor (By CAS) and Head of the Department of Applied Electronics, Faculty of Engineering and Technology, SGB Amravati University, Amravati

From May 01, 2007 to November 30, 2007: Professor of Computer Engineering and Dean of Research and Development, Vishwakarma Institute of information Technology, Pune

From April 01, 2004 to April 30, 2007: Professor (By CAS) and Head of the Department of Applied Electronics, Faculty of Engineering and Technology, SGB Amravati University, Amravati

From 31.7.2003 to 30.4.2007 Professor (By CAS) in Applied Electronics, Department of Applied Electronics, Faculty of Engineering and Technology, SGB Amravati University, Amravati

From 03-01-1995 to 31.07.2003 Reader (Assistant Professor) in Electronics, Post Graduate University Department of Applied Electronics, Faculty of Engineering and Technology, Amravati University, Amravati

Subjects Taught (B.E. Computer Engineering.):

Artificial Intelligence

Subjects Taught (M. Sc. Applied Electronics, Faculty of Engineering & Technology.):

Digital Signal Processing,
Communication Engineering,
Electronic Devices and Circuits,
Analog and Digital Computers,
Digital Computer Organization and Architecture,
Digital Circuits,
Digital Integrated Circuits,
Computer Networks,
C programming language,
Neural Networks,
Wavelet Transforms and Applications,
Design of Experiment and conduction of practical

From 01-01-1992 to 02-01-1995, Assistant Professor and Head of the Department of Electronics Engineering, B.D. College of Engineering, Sewagram, Wardha,

Subjects Taught (B.E.):

Microprocessors and applications,
Digital Electronics,
Electronic Devices and Circuits-II,
Design of Experiment and conduction of practical for B.E.
(Electronics and Communications)

From 03-08-1990 to 31-12-1991, Lecturer in Electronics Engineering, B.D. College of Engineering, Sewagram, Wardha, Subjects Taught (B.E.):

TV Engineering,
UHF and Microwaves,
Communication Theory,
Design of Experiments and conduction of practical
for B.E. (Electronics and Communications)

From 27-01-1990 to 27-07-1990, Lecturer in Electronics Engineering, B.N. College of Engineering, Pusad, Distt. Yavatmal, Subjects Taught (B.E.):

Digital Signal Processing,
System Simulation,
Computer Organization,
Design of Experiments and conduction

of practical for *B.E. (Electronics and Communications)* and *B.E. (Computer Engineering)*

From 07-7-1988 to 25-01-1990, Lecturer in Electronics and Computer Engineering, Walchand College of Engineering, Sangli-416415 (M.S.), Subjects Taught (*B.E.*):

Engineering Electro-magnetics,

Control Systems,

Digital Communications,

Linear Circuits,

Digital Signal Processing,

Design of Experiments and conduction of practical for *B.E. (Electronics and*

Communications) and *B.E. (Computer Engineering)*

From 06-10-1986 to 01-05-1987, Lecturer in Electronics Engineering, B.N. College of Engineering, Pusad, Distt. Yavatmal, Subjects Taught (*B.E.*):

Engineering Electromagnetics,

Control Systems,

Design of Experiments and conduction of practicals for *B.E (Electronics and Communications)*

From 01-09-1986 to 05-10-1986, Assistant Engineer, Quality Control, Overhaul, Hindustan Aeronautics Ltd., Ozar Town-ship, Nasik, Quality Control, Overhaul

Number of students guided for B.E. Dissertations:06

Number of students guided for M. Sc. (Engg.) Projects:12

Number of Students guided for M. Phil. (Electronics) Dissertations: 05

RESEARCH EXPERIENCE : 10 years

Recognized Ph.D. Supervisor of Universities at Amravati and Nagpur for Electronics Engineering and Computer Science and Engineering

Ph.D. Awarded: 07

No. of Ph. D. guiding : 07

Ph.D. Submitted: 01

No. of M. Phil. (Electronics) Dissertations guided: 05

RESEARCH PUBLICATIONS: 128+

A. Original (Refereed): 110.

B. Review: 17.

National/International Journals: 65

National Conference proceedings: 17

National/International Journals (In Press): 12

Other articles: 04

National/International Journals (Under Review): 12

International Conference proceedings: 43

Amravati University Research Journals: 03

CONTRIBUTED TO ORGANIZATION OF ACTIVITIES

Contributed to Cultural gathering, 1995, Refresher course in Electronics and Computer Science (1996) under UGC crash programme, Amravati Univ., Amravati., Refresher course in Electronics and Computer Science (1997) under UGC crash programme, Amravati Univ., Amravati., Science Exhibition (1997), National Science Day (1997), Seminar competition, National Science Day (2000), Seminar competition, National Science Day (2002), Expert lectures and Workshop on Conservation of Petrol, Diesel, and LPG (2002), One day workshop on Conservation of Electricity (2003), Popular Science lectures, National Science Day (2003), Exhibition, Ashwamedha 2003, Seminar competition, National Science Day (2004), Expert lectures, poster/model exhibition on Conservation of Energy at Sarangpur (2004), Expert lectures, poster/model exhibition on Conservation of Energy (2005), Popular science lectures, National Science Day (2005), National Science Day-2007 Celebrations: Worked as a Convener for Students' Seminar Competition and Worked as a member on Radio committee

Number of dissertations supervised List of B.E. Thesis (Project) guided

Microprocessor based voice processing, Digital frequency meter, Adaptive digital filter design, Microprocessor based traffic controller, Microprocessor based weighing machine, Microprocessor based oven temperature controller

List of Master Degree (Engg. & Technology) Thesis Supervised:

S.N	Level	Project Under Taken	No. Of Students	Completed Year
i.	P.G. M. Sc. Engg. (Applied Electronics)	Handwritten character recognition: a neural network approach	05	1995-96
		Fingerprint recognition using Neural Network Approach	05	1996-97
		Image Compression: a Neural Network Approach	05	1997-98
		Intelligent System Design: a Neuro-Fuzzy Approach	05	1998-99
		Microprocessor based Telephone Exchange	05	1999-2000
		Microprocessor based rolling display signboard	05	2000-2001
		Microprocessor based Laboratory Signal Generator	05	2001-2002
		Microprocessor based Token Number Display	05	2002-2003
		Clinical Decision Support System for Breast Cancer using Neural Network Approach	06	2003-2004
		Classification of Radar returns from the ionosphere using RBF Neural Network	06	2004-2005
		Embedded System Design for wireless curtain unveiling	06	2005-2006
		Intelligent control of electric load and electrical appliances	10	2006-2007
ii.	M.Phil	NIL	Nil	NIL
iii.	Ph.D.	* Supervising 6 Students (list is given separately)		
iv.	D.Sc./D.Lit	Nil	Nil	Nil

NO. OF PH. D. STUDENTS AWARDED: 07

NO. OF PH. D. STUDENTS GUIDING: 07

NO. OF PH. D. STUDENTS SUBMITTED: 01

CURRENT RESEARCH ACTIVITY AND INTEREST:

- AI in Pattern Recognition, Prediction and Regression
- Applications of Neural Networks and Support Vector Machines in the development of intelligent systems in engineering and bio- technology
- Machine Intelligence: A Soft- Computing Approach
- Solutions to challenging NP complete problems
- Advance digital signal processing
- Pattern Analysis and Machine Intelligence
- Computational Intelligence

SIGNIFICANT ASSIGNMENTS:

- Reviewer of the IEEE Transactions on Neural Networks and Instrumentation and Measurement, USA (from 2007)**
- Invited to Review the research papers submitted to the IJCNN (International Joint Conference on Neural Networks) - IEEE International Conferences and IEEE Transactions on Neural Networks, highly recommended as an expert by International Neural Networks Society**
- Mentor for M.S (Software Systems) programme conducted by BITS, Pilani (From 2005)**

- ❑ **Member of WSEAS (World Science and Engineering Academy and Society) International Working Group on Computers (From 2005)**
- ❑ **Reviewer of the research papers submitted to the International Journal: Invited to work as a Reviewer for several papers submitted to the Elsevier *Applied Soft Computing* International Journal (From 2004)**
- ❑ **Reviewer of Elsevier International Journal on NeuroComputing (From 2008)**

AWARDS AND SCHOLARSHIPS

“Eminent Engineer Award” in September 2005 by the Institution of Engineers (India), Amravati Regional Centre

GATE scholarship (Gate-1986: score 89%)

National Merit Scholarship: twice (1980 to 1982 and 1982 to 1986)

State-level Scholarships: twice (from 1974 to 1977 and 1977 to 1980)

Special Distinctions:

First in M. E. Electronics with Specialization in Computer Applications from Shivaji University, Kolhapur in 1989

Recipient of a Gold Medal for the First rank at B. E. Examinations in 1986.

Other:

Qualified Elementary and Intermediate level Drawing Examinations organized by the state of Maharashtra in 1977 and 1978, respectively.

Chairing of the Sessions of International/National Conferences:

1. **Chaired the Technical Paper Presentation session** as a **Chairman** at the **National Conference on Recent Trends in Computer Communication Networking- 2004** held at Jawaharlal Darda Institute of Engineering & Technology, Yavatmal on 3rd July 2004.
2. **Chaired a session** on Dec. 20, 2004 on “*Application of Neural Networks in Instrumentation*” at the **International Conference on Instrumentation (INCON-2004)**, organized by the Pune Institute of Engineering and Technology and the Instrument Society of India, Dec. 19-21, 2004, Pune
3. **Chaired a session** on July 13, 2006, on Artificial Intelligence and Expert Systems for the “**International Conference on Recent Trends in Automation & Its Application to Industries**” held at Priyadarshini College of Engineering & Architecture, Nagpur in collaboration with International Federation for the CAS of Mechanisms and Machine Science.

Worked as a Judge (and participated in Panel discussions as Judge) and Advisory Committee member at National Conferences

1. Worked as a Judge for the technical session of One Day State Level Technical Paper Conference on “Future trends in Engineering and Technology” on 17th March 2001 at Govt. Polytechnic, Amravati.
2. Worked as a Judge in a National level Technical Paper Presentation (TechnoXtreme-2004) held on 18th and 19th February 2004 at Jawaharlal Darda Institute of Engineering & Technology, Yavatmal
3. Worked as an advisory committee member for National level paper presentation competition “TechnoXtreme-05” on 26th February 2005

Invited to conduct comprehensive workshops on *Neural computing* single-handedly: 05

1. **Invited to conduct a comprehensive workshop” single-handedly** on “NeuroComputing Techniques and their applications”, the Three days Workshop on Introduction to Neural Networks held at Pune Institute of Engineering & Technology from January 01 to January 03, 2004
2. **Invited to conduct a comprehensive workshop single-handedly** on “NeuroComputing Techniques and their applications”, the Two days Workshop (Second Phase) on Introduction to Neural Networks held at Pune Institute of Engineering & Technology from September 03 to September 04, 2004
3. **Invited to conduct a comprehensive workshop single-handedly on** “ Artificial Neural Networks and their applications in engineering” held at the Department of Electronics and telecommunications engineering, Dr. Baba Saheb Ambedkar Technological University, Lonere from July 29 to 30, 2006 under TEQIP
4. **Invited to conduct a comprehensive workshop single-handedly on** “Neural Networks –Foundations & Recent Applications” held at the Department of Electronics and telecommunications engineering, Anuradha Engineering College, Chikhli from November 21 to 22, 2006.
5. **Invited to conduct a comprehensive workshop single-handedly on** “ Neurocomputing & Applications: A research approach” held at the Department of Electronics and telecommunications engineering, Government Polytechnic, Amravati on January 06, 2007.

Organization of Workshops: 04

1. Three days' Workshop on "**VLSI Design**" at the P.G. Department of Applied Electronics, Sant Gadge Baba Amravati University, Amravati, March 29-31, 2007
2. Two Days' UGC-sponsored Workshop on "**Development and implementation of Question Bank in the faculty of Engineering and Technology**" organized by P. G. Department of Applied Electronics, Sant Gadge Baba Amravati University, Amravati, March 30-31, 2007
3. One Day Training Programme for Science and Engineering Teachers under National Mission on Education, MHRD, Organized by CDEEP, IIT Bombay at Sant Gadge Baba Amravati University, Amravati on August 8, 2009.
4. One Day Workshop on Lighting for Rural and Urban Low Income Groups using LEDs, Sant Gadge Baba Amravati University, Amravati on October 3, 2009.

Invited to teach Neural Networks to M.Phil. (Computer Science) students

Delivered numerous lectures on "**Neural Networks**" to the students of M.Phil. *Computer Science* of Yashwantrao Chavan Maharashtra Open University, Nashik at Department of Computer Science, HVPM, Amravati for the session 2006-07.

Invited to teach some portion of Bio-informatics to M.Sc. (Botany) students of SGB Amravati University (2004-2005)

Invited to teach DSP to B. E. (Computer) students

Delivered numerous lectures on "Digital Signal Processing" to the students of B. E. Final Year *Computer Science* of Government College of Engineering, Amravati for the session 1998-1999

INVITED / PLENARY LECTURES: 19

1. Delivered an **invited talk** on "**Social Responsibilities of Scientists in the third Millennium**" in the P. G. Department of Sociology, Amravati University, Amravati on 9th January, 2001
2. S. V. Dudul, "**Optical Networking**", An **invited** paper (also invited talk) in Proceedings of one day state level technical paper conference on Future Trends in Engineering and Technology, Government Polytechnic, Amravati, 17th March, 2001, pp. xix-xxii.
3. Delivered **invited talk** on "**Neural Networks and their applications**" at the Bharati Vidyapith's Engineering College, Dhanakwadi, Pune on September 05, 2004.
4. Delivered an **invited talk** on "**Curriculum upgradation: Issues and Challenges for designing under-graduate Electronics Course,**" at the workshop on upgradation of curriculum, Brijlal Biyani Science College, Amravati on 20th March, 2005.
5. Delivered an **invited talk** on "**Use of interactive multimedia in education**" in the P.G. Dept of Education, Sant Gadge Baba Amravati University, Amravati on 16th August 2005.
6. Delivered an **invited talk** on "**Efficacy of information and communication technology in the context of functional/translational Hindi**" in the P.G. Dept of Hindi, Sant Gadge Baba Amravati University, Amravati on 2nd March 2006.
7. Delivered **Keynote Address** on "**MATLAB and its applications in various Engineering fields**" in Department of Electronics and Telecommunication Engineering, Jawaharlal Darda Institute of Engineering and Technology, Yavatmal on 9th October 2006.
8. Delivered an **Invited talk** on "**Use of Computers and Information Communication Technology for research in Hindi**" P. G. Department of Hindi, Sant Gadge Baba Amravati University, Amravati on 7th February 2007.
9. Delivered **Keynote Address** on "**Presenting a Research**" in Department of Computer Science and Engineering, JIGYAASA-2007, Prof. Ram Meghe Institute of Technology & Research, Badnera, Amravati on 10th February 2007.
10. Delivered **Expert Lectures** on "**Pattern Recognition**" at AICTE SITP on Digital Image Processing, B. N. College of Engineering, Pusad, Distt. Yavatmal on 24th April 2007.
11. Delivered **Expert Guest Lectures** on "Research Methodology in Engineering and Technology" at the Workshop on "Research Processes in Engineering", 6 July and 7 July 2007, Dept of Computer Engineering, VIIT, Pune 411 048
12. Delivered **Expert Guest Lecture** on "Support Vector Machines" at AICTE-ISTE Approved Short Term Training Program on "Soft Computing Tools: Neuro, Fuzzy Logic & Genetic Algorithms (SCT 2007), 16 July 2007 to 21 July 2007, on 18th July 2007, Dept of Computer Engineering, VIIT, Pune 411 048
13. Delivered **Expert Guest Lectures** on "MATLAB, programming and engineering applications" July 26 and 27, 2007, Department of Electronics and telecommunications engineering, VIIT, Pune 411 048.
14. Delivered an **expert guest lecture** on "**Presentation Techniques and guidelines**" at Sinhgad College of Engineering, Pune – 411 041 on 17/09/2007.
15. Delivered an **expert guest lectures** on "**Neural Networks in advance signal processing and pattern recognition**" at AICTE sponsored Staff Development Program on Advanced Digital Signal Processing, Sinhgad College of Engineering, Pune – 411 041 from 11/12/2007 to 13/12/2007.
16. Delivered an **invited talk** on "**Applications of IT in research in Hindi**" in the P.G. Dept of Hindi, Sant Gadge Baba Amravati University, Amravati on 8th March 2008.

17. Delivered an **expert guest lectures** on “**Neural Networks and pattern recognition**” at AICTE sponsored Staff Development Program on Current trends in real time application of DSP and Image Processing, Bharati Vidyapeeth University, College of Engineering, Dhanakawadi, Pune – 411 043 on 27th June 2008.
18. Delivered an Invited Talk on “Applications of Neural Networks in Communication and Information Technology”, National Conference on Emerging Trends in Communication & Information Technology (ETCIT-08), HVPM’s College of Engineering and Technology, Amravati on 20th September 2008.
19. Delivered an Invited lecture on “Research presentation techniques”, UGC sponsored Refresher Course in Basic Science, organized by Academic Staff College, Sant Gadge Baba Amravati University, Amravati on 28th May 2009.
- 20.

FELLOW OF

- 1. The Institution of Engineers (India), F 110230-5 (From 2004)**
- 2. The Institution of Electronics and Telecommunications Engineers, F 109134 (From 2004)**

CHARTERED ENGINEER OF

The Institution of Engineers (India) (From 2004)

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

Life Member/Senior Life Member:

- 1. Indian Society for Technical Education (ISTE), LM 7180**
- 2. Computer Society of India (CSI), LM 011**
- 3. Indian Science Congress Association (ISCA) (Kolkata), LM 6610**
- 4. Instrument Society of India, LM 1357**
- 5. Institution of Electronics and Telecommunications Engineers (IETE) M 109134**
- 6. Institution of Engineers (India) M 114459/0**

SUMMER/WINTER SCHOOLS/WORKSHOPS PARTICIPATED:

Summer/Winter Schools: 02

Workshops/Short term courses: 04

As a Resource person for:

6 Refresher Courses

8 AICTE-ISTE sponsored winter and summer schools

1 Workshop sponsored by TEQIP

INTERNATIONAL, NATIONAL, WORKSHOPS AND SEMINARS ATTENDED: 07

1. Fifth course on Telematics: Signal Processing at Indian Institute of Technology, New Delhi from 26th June to 15th July 1989.
2. As a Resource Person for AICTE-ISTE sponsored short term course on “Microcontrollers and Electric Drives”, Government Polytechnic, Amravati, Sept. 14-25, 1998
3. National Workshop on “Advanced Communication Systems and Applications” held at B. N. College of Engineering, Pusad on 24th and 25th December 1998.
4. Workshop on “Energizing Curriculum for Upgradation of Standards” organized by Amravati University, Amravati on 14th and 15th July, 2001
5. Workshop on Assessment and Accreditation of College, University Auditorium, 23rd December 2001.
6. Participated in the National Workshop on Interactive Multimedia in Distance Learning, Jan. 3-19, 2005, IGNOU, New Delhi, India, organized by the Distance Education Council and Inter-University Consortium for Technology-enabled Flexible Education and Development
7. Two day Seminar on ICE: Information, Communication & Education, 5th & 6th August 2006, Prof Ram Meghe Institute of Technology & Research, Badnera-Amravati

Invited as a Resource Person to deliver lectures for Refresher Courses and Summer/winter schools

1. Delivered expert lectures as a Resource Person on the following topics for the **Refresher Course** on Electronics and Computer Science organized by the P. G. Department of Applied Electronics, Amravati University, Amravati from 6 May to 29 May 1996.
 - 1. Digital Signal Processing- an Introduction on 11th May, 1996**
 - 2. Multirate Digital Signal Processing on 13th May, 1996.**
 - 3. Intelligent System Design on 15th May, 1996.**
 - 4. Artificial Neural Networks on 16th May, 1996.**
 - 5. Backpropagation Algorithm on 22nd May, 1996**

2. Delivered expert lectures as a Resource Person on the following topics for the **Refresher Course** on Electronics and Computer Science organized by the P. G. Department of Applied Electronics, Amravati University, Amravati from 4 October to 27 October 1997
 - **Fourier Transforms and Z transforms on 6th October, 1997**
 - **Neural Networks- Part I on 8th October, 1997**
 - **Neural Networks- Part II on 10th October, 1997**
 - **Fuzzy Logic on 12th October, 1997**
 - **Digital Image Processing on 16th October, 1997**
 - **Genetic Algorithms on 21st October, 1997**
3. Delivered expert lectures as a resource person AICTE-ISTE sponsored short term course on “Microcontrollers and Electric Drives”, Government Polytechnic, Amravati, Sept. 14-25, 1998
4. Delivered expert lectures as a Resource Person on “**Artificial Neural Networks**” for the **Refresher Course** on Electronics and Computer Science organized by the P. G. Department of Computer Science, Amravati University, Amravati on Date: 19-06-2000.
5. Delivered expert lectures as a Resource Person on “**Artificial Neural Networks**”, “**Applications of Neural Networks**” and “**Engineering Applications of Fuzzy Logic**” for the **Refresher Course** on Electronics, Physics, and Computer Science organized by the P. G. Department of Physics, Amravati University, Amravati in May-June, 2001
6. Delivered expert lectures as a Resource Person on “**Artificial Neural Networks**” and “**Applications of Neural Networks**” for the **Refresher Course** on Mathematics and Statistics organized by the P. G. Department of Statistics, Amravati University, Amravati in May-June, 2001
7. Delivered invited lectures on “**C Programming Course**” in the **summer school** organized by Government Polytechnic, Amravati from 21-04-1997 to 03-05-1997.
8. *Delivered invited expert lectures as a Resource person in AICTE-ISTE sponsored winter school on “Microcontrollers and Electric Drives”, at Government Polytechnic, Amravati, Sept. 14-25, 1998, pp. 15.1-15.2*
9. Delivered invited lectures on “**Use of Window Package with MS Office**” in the **winter school** organized by Government Polytechnic, Amravati from 7-12-1998 to 19-12-1998
10. Delivered invited lectures on “**Use of Window Package with MS Office**” in the **winter school** organized by Government Polytechnic, Amravati from 18-01-1999 to 31-01-1999
11. Delivered invited lectures on “Logic Analyzer and its applications” in the **summer school** organized by Government Polytechnic, Amravati from 7-06-1999 to 11-06-1999.
12. Delivered invited expert lectures as a Resource person in AICTE-ISTE sponsored **summer school** on “**Artificial Neural Networks and Fuzzy Logic**” at B. N. College of Engineering, Pusad (27-28 March, 2003)
13. Delivered invited expert lectures as a Resource person in ISTE sponsored **summer school** on “**Advanced Digital Signal Processing**” at B. N. College of Engineering, Pusad (25 June, 2004)
14. Delivered lectures as a Resource Person on “**Neural Computing**” and “**Applications of Neural Computing**” for the **Refresher Course** on Mathematics, Statistics, Physics, Electronics, and Computer Science organized by the P. G. Department of Mathematics, Amravati University, Amravati on March 10 and 16, 2005.
15. Delivered invited expert lectures as a Resource person in TEQIP sponsored Two days workshop on “**Neural Network Fundamentals**” at Government College of Engineering, Amravati (17 March, 2006)

REFEREE / EXAMINER

1. Research papers on Neural Networks submitted to IEEE Transactions on Neural Networks and IEEE International Joint Conferences on Neural Networks
2. Research papers on Neural Networks for Elsevier International Journal of Applied Soft Computing
3. Research papers of International Conferences organized by WSEAS (World Science and Engineering Academy and Society)
4. Ph. D. Theses
5. M.E. dissertations
6. M.Sc. projects.

PROJECTS

Instruments Maintenance Facility of UGC Tenth Plan for Central Instrumentation Cell of the university
Submitted projects on Rajiv Gandhi Chair, Kabir Chair, Information Communication and Education, Renovation of Central Instrumentation Cell to different funding agencies

PUBLICATIONS

**Average Citation Index (Computed by SCOPUS, Elsevier, ‘h’ index)
of Dr. Dudul: 4.0**

Average Impact Factor of Journals: 2.541

Original (technical)

International Journals: 53 (Peer reviewed/Refereed)

In Press: 12

Under Review: 9

Single-authored:

1. S. V. Dudul, “Prediction of a Lorenz Chaotic Attractor Using Two-Layer Perceptron Neural Network”, *International Journal of Applied Soft Computing*, Elsevier Science, vol. 5, July 2005, Issue 4, ISSN No.: 1568-4946, pp. 333-355.

2. Dudul Sanjay, "Identification of Nonlinear Systems Using a Novel FTLRNN Model", Elsevier **International Journal of Applied Soft Computing**, ISSN No.: 1568-4946, (In Press)

Co-authored:

3. Dudul S. V. and Ghatol A. A. "Identification of a Typical CD Player Arm Using Two-layer Perceptron Neural Network", **Neural Networks, 2003. Proceedings of the International Joint Conference on**, Volume 2, Portland, Oregon, USA, 20–24 July 2003, **IEEE Catalog No. 03CH37464C**, ISSN: 1098-7576, ISBN: 0-7803-7899-7, INSPEC Accession Number: 7883881, Vol. 2, Digital Object Identifier 10.1109/IJCNN.2003.1223855, page(s): 1157-1162.
4. Charniya N. N. and Dudul Sanjay, "Neural Network based Sensor for Classification of Material Type and its Surface Properties", **Neural Networks, 2007. Proceedings of the International Joint Conference on**, IJCNN-2007, August 12-17, 2007, at the Renaissance Orlando Resort, Orlando, Florida, USA, Digital Object Identifier 10.1109/IJCNN.2007.4370994, ISSN: 1098-7576, ISBN: 978-1-4244-1380-5, page(s): 424-429.
5. Charniya N. N. and Dudul S. V. , "Sensor for Classification of Material Type and its Surface Properties using Radial Basis Networks", **IEEE Sensors Journal**, ISSN: 1530-437X, Vol. 8, Issue 12, December 2008, pp. 1981-1991.
6. G.U. Kharat and S. V. Dudul, "Analysis of Facial Expressions Emotion Recognition System", *International Journal of Engineering Research and Industrial Applications*, Vol. 1, No. 1, 2008, ISSN: 09704-1518, pp. 31-52.
7. Ghate V. N. and Dudul Sanjay V., "Failure in Squirrel cage Induction Motor: Causes and Analysis" *International Journal HIT Transaction on ECCN*. July 2006 Vol.01.No.3 ISSN: 0973-6875, pp 183-191.
8. G.U. Kharat and S. V. Dudul, "Analysis of Human Emotion Recognition System using speech signals", *International Journal of Mathematical Science and Applications*, Vol. 2, No. 1, 2008, ISSN: 09739-424, pp. 77-100.
9. G.U. Kharat and S. V. Dudul, "Neural Network Based Optimal Speech Emotion Recognition System", *International Journal of Mathematical Science and Applications*, Vol. 2, No. 4, March 2008, ISSN: 09739-424, pp. 23-37.
10. G.U. Kharat and S. V. Dudul, "Performance Comparison of Facial Feature Extraction Techniques in Designing Human Emotion Recognition System Using Optimal PCA Neural Network", *International Journal of Computer Science and Applications*, vol. 1, no. 2, August 2008, pp. 146-152. ISSN: 0974-1003
11. G.U. Kharat and S. V. Dudul, "Optimal Neural Network Classifier for Human Emotion Recognition from Facial Expression Using Singular Value Decomposition (SVD)", *International Journal of Engineering Research and Industrial Applications*, Vol. 1, No. 4, 2008, ISSN: 09704-1518, pp. 155-166.
12. G.U. Kharat and S. V. Dudul, " Human Emotion Recognition System Using Optimally Designed SVM with different Facial Feature Extraction Techniques", **WSEAS Transactions on Computers**, Volume 7, Issue 6, June 2008, Pages 650-659, ISSN 1790-5117
13. Dudul S. V. and Kale S. N., "Estimation of Men's body fat using MLP NN Model, *International Journal of Engineering Research and Industrial Applications*, Vol. 1, No. 5, 2008, ISSN: 09704-1518, pp. 15-38.
14. Ghate V. N., Dudul S. V. and Dhole G. M., " Generalized model of three phase Induction Motor for fault diagnosis, *International Journal of Engineering Research and Industrial Applications*, Vol. 1, No. 4, 2008, ISSN: 09704-1518, pp. 113-127.
15. Kelo S. M. and Dudul S. V. , "A Novel Elman Recurrent Neural Network Model for Short term Electrical Power Load Prediction in Maharashtra", *International Journal of Engineering Research and Industrial Applications*, Vol. 1, No. 5, 2008, ISSN: 09704-1518, pp. 253-278.
16. Badjate S. L. and Dudul S. V. , "A Novel Neural Network Model for Prediction of a Lorenz Chaotic Time Series", *International Journal of Engineering Research and Industrial Applications*, Vol. 1, No. 5, 2008, ISSN: 09704-1518, pp. 127-145.
16. Charniya N.N. and Dudul S.V., Intelligent Sensor System for Discrimination of Material Type using Neural Networks", **Elsevier International Journal of Applied Soft Computing**, ISSN No.: 1568-4946, (In Press)
17. Karule P. T. and Dudul S. V. "Application of Neural Networks to Clinical Data for the Diagnosis of two forms of Hepatitis", *International Journal of Engineering Research and Industrial Applications*, ISSN: 09704-1518, Vol. 1, No. 6, October 2008, pp. 1-23.
18. Karule P. T. and S. V. Dudul, "Comparison of Neural Network Based DSS for Analysis and Classification of Mild and Severe Hepatitis: A Differential Learning Approach", *International Journal of Mathematical Science and Applications*, ISSN: 09739-424, Vol. 2, No. 3, September 2008, pp. 65-84.
19. Karule P. T. and Dudul S. V., "Optimal MLP Neural Network Model for Diagnosis of Liver Diseases from Ultrasonic Liver Images", *Elsevier International Journal of Artificial Intelligence in Medicine (Under Review ref. no. AIIM -D-08-00129)*
20. Raut R. D. and Dudul S. V. "Arrhythmia Classification with MLP Neural Network and Statistical Analysis", *International Journal of Engineering Research and Industrial Applications*, ISSN: 09704-1518, Volume 1, Issue 6, October 2008, pp. 211-222.
21. Raut R. D. and Dudul S. V. "Development of Optimal Classifier for Cardiac Arrhythmias using MLP Neural Network and Statistical Approach", *International Journal of Simulation: systems, science and technology (IJSST)*, ISSN online: 1473-804, ISSN print: 1473-803, volume 10, issue 3, EDAS London, 2008, DOI 10.1109.
22. Raut R. D. and Dudul S. V. "Effect of dimensionality reduction, error norms and cross entropy criterion on MLP Neural Network classifier for Cardiac Arrhythmias", *International Journal of Mathematical Sciences and Engineering Applications (IJMSEA)*, ISSN: 0973-9424, volume 2, No. IV, December 2008, pp. 209-224.
23. Raut R. D. and Dudul S. V. "Classification of Arrhythmias from analysis of the ECG Signal", *International Journal of Engineering Research and Industrial Applications*, ISSN: 09704-1518, Volume 2, Issue 1, January 2009, pp. 299-311.
24. Kharat G. U. and Dudul S. V., "Speech Emotion Recognition System Using Multilayer Perceptron", *International Journal of Computers, Information Technology and Engineering*, Vol. II, No. 2, 2008, ISSN: 0974-3367, pp. 37-43.
25. Kharat G. U. and Dudul S. V. "Design of Neural Network based Human Emotion State Recognition System from Facial Expressions", *International Journal of Emerging Technology and Applications in Engineering Technology and Science (J-ETA-ETS)*, January 2009-June-2009, ISSN: 0974-3367, pp. 55-60.
26. Kharat G. U. and Dudul S. V. , "Speech Emotion Recognition System using Generalized Feed Forward Neural Network", *International Journal of Algorithms, Computing and Mathematics*, Vol. 1, No. 2, November 2008, ISSN: 0974-3367, pp. 63-68.
27. Kharat G. U. and Dudul S. V. , "Optimal Intelligent System for Human Emotion Recognition using Neural Network", *International Journal of Simulation: Systems, Science & Technology (IJSST)*, Volume 10, No. 3 (In Press)

28. Kharat G. U. and Dudul S. V. , “Emotion Recognition from Facial Expression using Neural Network”, Springer-Verlag Series Advances in Soft Computing (Physica Verlag) (**In Press**)
29. Badjate S. and Dudul S. V., “Multi step ahead prediction of laser time series using neural network models” , International Journal of Mathematical science and Engineering Applications Volume 2, No. III/IV 2008. pp 127-145.
30. Badjate S.L. and Dudul S. V. , “A Novel Neural Network Model for Prediction of Lorenz chaotic time series”, International Journal of Engineering Research and Industrial Applications (IJERIA), Volume 1, No. V (2008), pp. 127-145.
31. Badjate S.L. and Dudul S. V., “A Novel FTLRNN model for short term and long term prediction of Chaotic time series”, International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences (IJ-ETA-ETS), ISSN no. 0974-3588, Issue July-08- December-08, pp no.101-110.
32. Badjate S. L. and Dudul S. V. “Novel FTLRNN Model For Short Term And Long Term Ahead Prediction Of Sun Spots Chaotic Time Series” , International Journal of Artificial Intelligence ,ISSN: 1994-5450, Asian Network for Scientific Information (ANSI) Journal Pakistan, Vol. 1 (2), 2009, pp. 1-16.
33. Badjate S. L. and Dudul S. V., “Multi-step ahead prediction of Internet Bandwidth using FTLRNN model”, International Journal of Intelligent Journal of Information Processing, Serial Publications, ISSN no.0973-3892 Vol .2 ,no.2, July-December 2008, pp. 275-288.
34. Naikwad S. N. and Dudul S. V., “Neural Network based modeling of a continuous stirred tank reactor”, International Journal of Engineering Research and Industrial Applications, ISSN: 0974-1518, Vol. 2, No. II(2009), pp. 203-217.
35. Naikwad S. N. and Dudul S. V., “Modeling of a typical magnetic stirrer (A Neural Network approach)”, International Journal of Emerging Technologies and Applications in Engineering, Technology & Sciences (IJ-ETA-ETS), July 2009-December 2009, Vol. 2, Issue 2, pp. 119-127, ISSN: 0974-3588.
36. Naikwad S. N. and Dudul S. V., “Effect of noise on optimal neural network models for system identification of a typical magnetic stirrer”, International Journal of Mathematical Sciences & Engineering Applications, Vol. 3, No. 2, 2009, pp. 283-298, ISSN: 0973-9424
37. Naikwad S. N. and Dudul S. V., “Influence of noise on optimal neuralnetwork models for system identification of a typical CSTR”, International Journal of Computer, mathematical sciences and applications, Serial publications, Vol. 3, No. 1-2, Jan-June 2009, pp. 73-85, ISSN: 0973-6786
38. Naikwad S. N. and Dudul S. V., “Identification of a typical continuous stirred tank reactor using optimal FTLR Neural Network Model with Gamma memory filter”, Indian Journal of Science and Technology, (Accepted and In Press).
39. Badjate S. L. and Dudul S. V., “Multi Step Ahead Prediction of North and South Hemisphere Sun Spots Chaotic Time Series using Focused Time Lagged Recurrent Neural Network Model”, **WSEAS Transactions on Information Science and Applications**, ISSN 1790-0832, Volume 6, Issue 4, April 2009, pp. 684-693.
40. Karule P. T. and Dudul S. V., “Optimal Neural Network Classifier for Liver Diseases using Texture Features extracted from ultrasound images”, International Journal of Computer Applications in Engineering, Technology and Sciences (ISSN 0974-3596), Volume 2, Issue 2, pp. 191-195, July 2009
41. Badjate S. L. and Dudul S. V., “Novel FTLRNN with gamma memory for short term and long term prediction of chaotic time series”, **International Journal of Applied computational Intelligence and Soft Computing**, Hindawi Publication Corporation New York USA., Vol. 2009, doi 10.1155/2009/364532.
42. Ghate V. N. and Dudul S. V., "Design of Optimal MLP and RBF Neural Network Classifier for Fault Diagnosis of Three Phase Induction Motor" **IEEE Transactions on Energy Conversion**, manuscript ID :TEC-00448-2008.R1. (In Press)
43. Raut R. D. and Dudul S. V., “One-Year Mortality Prognosis in Heart Failure: A Neural Network Approach Based on Echocardiographic Data”, International Journal of Computer, Mathematical Sciences and application (IJCMSA), Serial Publications, ISSN: 0973-6786, vol. 2, no. 4, December 2008, pp. 389-403.
44. Raut R. D. and Dudul S. V. “MLP Neural Network based clinical decision support system for Cardiac Arrhythmias”, International Journal of Computer, Mathematical Sciences and application (IJCMSA), Serial Publications, ISSN: 0973-6786, vol. 2, no. 4, December 2008, pp. 357-366.
45. Raut R. D. and Dudul S. V., “Error Norms, Cross Entropy Criterion and Dimensionality Reduction Effect on MLP NN Classifier for Arrhythmias”, International Journal of Electronics Engineering (IJEE), ISSN: 0973-7383, vol. 1, issue II, Dec. 2009, pp. 1-14.
46. Raut R. D. and Dudul S. V., “Echocardiographic Classification of Heart Diseases using Generalized Feed Forward Neural Network”, Serial- International Journal of advance research in computer engineering (IJACE), Jan-June 2009, vol. 3, no. 1, ISSN 0974-4320. pp. 79-85.
47. Raut R. D. and Dudul S. V., “Outcome prediction for critical patients under intensive care using PCA NN and dimension reduction analysis”, International Journal of Computer Applications in Engineering Technology and Sciences (IJ-CA-ETS), ISSN: 0974-3596, April 2009, vol. 1, issue 2, pp. 466-474.
48. Raut R. D. and Dudul S. V., “Classification Capacity of a Self Organizing Feature Map Neural Network with 2D Doppler Echocardiography”, International Journal of Computer Applications in Engineering Technology and Sciences (IJ-CA-ETS), ISSN: 0974-3596, April 2009, vol. 1, issue 2, pp. 665-673.
49. Raut R. D. and Dudul S. V., “Determination of Long-Term Outcome in patients with coronary artery disease using an Artificial Neural Network”, International Journal of Computer Sciences and applications (IJCSA), ISSN: 0974-1003, July-Sept 2009, vol. 2, no. 2, pp. 81-90.
50. Raut R. D. and Dudul S. V., “Prognosis prediction of patients survival with 2D Doppler Echocardiography”, International Journal of IT and knowledge management (IJITKM), ISSN: 0973-4414, June 2009, Accepted, Manuscript ID no. IJITKM-2009-1086
51. Raut R. D. and Dudul S. V., “An empirical comparison of PCA NN and statistical analysis to the prediction of patients survival”, International Journal of Algorithms, Computing and Mathematics (IJACM), Eshwar Publications, ISSN: 0974-3367, vol. 2, no. 4, Nov. 2009, Accepted, Manuscript ID no. IJACM-779
52. Raut R. D. and Dudul S. V., “Clinical Decision Support System based on MLP NN for Heart Diseases”, International Journal, WSEAS Transactions on Biology and Biomedicine, ISSN: 1109-9518, Under Review, Manuscript ID no. 32-587.
53. Raut R. D. and Dudul S. V., “Patient’s survival classification from echocardiogram using MLP neural network”, International Journal of Computer Applications in Engineering Technology and Sciences (IJ-CA-ETS), ISSN: 0974-3596, October 2009, vol. 1, issue 3, pp. 1-10.
54. Raut R. D. and Dudul S. V., “Design and performance analysis of MLP NN based binary classifier for heart diseases”, Indian Journal of Sciences and Technology, ISSN: 0974-5645, Vol. 1, issue 2, Aug. 2009, Manuscript ID no. 343.

55. Raut R. D. and Dudul S. V., "Study of Effect of Dimensionality Reduction, variation of error norms and cross entropy criterion on the performance of MLP NN classifier for cardiac arrhythmias", International Journal of Applied Soft Computing, Elsevier, ISSN: 1568-4946, Under Review, Manuscript ID no. ASOC-D-07-00215R1.
56. Raut R. D. and Dudul S. V., "Learning ability of MLP Neural Network in Diagnosis of Cardiac Arrhythmias", Hindawi **International Journal of Applied Computational Intelligence and Soft Computing** (IJACISC), New York, USA, Manuscript No. ACISC-410761, Under Review.
57. Ghate V. N. and Dudul S. V., "Optimal MLP Neural Network Classifier for Fault Detection of Three Phase Induction Motor", **Elsevier International Journal of Expert Systems with Applications**, 37 (2010), pp. 3468-3481.
58. Ghate V. N. and Dudul S. V., "SOM NN based Fault Classifier for three phase induction motor", International Journal of Intelligent Information Processing, Vol. 3, No. 1, pp. 134-149 (2009), Serial Publications
59. Kale S. N. and Dudul S. V., "Using Multilayer Perceptron Neural Network an Optimal regressor for demodulation of a typical frequency modulated signal", International Journal of Mathematical Science and Engineering Applications (IJMSEA), Vol. 3, No. I (2009), pp. 27-44.
60. Kale S. N. and Dudul S. V., "Intelligent Noise Removal from EMG Signal using Focused Time Lagged Recurrent Neural Network", **Hindawi International Journal of Applied Computational Intelligence and Soft Computing**, Vol. 2009, Article ID 129761, doi:10.1155/2009/129761
61. Charniya N. N. and Dudul, "A Simple Low Cost System for thickness measurement of metallic plates using Laser mouse navigation sensor", **IEEE Transactions on Instrumentation and Measurement**, (Accepted and In Press)
62. Ghate V. N. and Dudul S. V., "Fault diagnosis of three phase induction motor using neural network techniques" **IEEE Transactions on Industrial Electronics**, paper ID 09-0663-TIE, (In Press)
63. Ghate V. N. and Dudul S. V., "Induction machine fault detection using SVM based classifier", **WSEAS Transactions on Systems**, Issue 5, Vol. 8, May 2009, pp. 591-603 (ISSN: 1109-2777).
64. Ghate V. N. and Dudul S. V., "Fault detection of three phase induction motor using RBF Neural Network, Springer, IJEIS CRL Publishing, Springer Transactions on Neural Computing and Applications, manuscript no. NCA-471 (Under Review)
65. Ghate V. N. and Dudul S. V., "Induction machine fault detection using generalized feedforward neural network", International Transactions on Electrical Machinery and Energy Conversion Systems, Korea, ACTA, Vol.4, No. 3, September 2009, pp. 389-395, ISSN: 1975-0102
66. Ghate V. N. and Dudul S. V., "Artificial neural network based fault classifier for three phase induction motor", International Journal of Power Electronics, JPE, Korea, manuscript no. E2009025 [09-0035] (Under Review)
67. Ghate V. N. and Dudul S. V., "Comparative study of feature selection methods for fault classifier of three phase induction motor", International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences, July 2009, pp. 462-467, ISSN: 0974-3588
68. Ghate V. N. and Dudul S. V., "RBF-MLP cascade neural network based fault classifier for three phase induction motor", International Journal of Neural Network Applications, 2 (1), January-June 2009, pp. 37-42, ISSN: 0974-6048.
69. Ghate V. N. and Dudul S. V., "SVM based fault classification of three phase induction motor", International Journal of Science and Technology, ISSN: 0974-5645, Vol. 2, No. 4, 2009, pp. 32-35.
70. Ghate V. N. and Dudul S. V., "Artificial Neural Network based fault classifier for three phase induction motor", International Journal of Computational Intelligence Research (IJCIR), Vol. 5, No. 1, pp. 25-36, ISSN: 0973-1873
71. Raut R.D. and Dudul S. V., "Designing Optimum, Intelligent Clinical Decision Support System for Cardiac Arrhythmias using Neuro Computing Approach", International Journal of Computers in Medicine and Biology, ISSN: 0010-4825, Manuscript no. JCMB-1166.
72. Raut R.D. and Dudul S. V., "Soft Computing Technique for Identification of Complex Heart data using MLP NN Classifier", International Journal of Medical & Biological Engineering & Computing, Springer publications, ISSN: 0140-0118, Journal no. 11517
73. Raut R.D. and Dudul S. V., "Heart Disease Identification using MLP NN Binary Classifier", International Journal of Artificial Intelligence and Soft Computing (IJAISC), Inderscience publications, ISSN: 1755-4969
74. Raut R.D. and Dudul S. V., "Development of Compact MLP NN for Clinical DSS", International Journal of Artificial Intelligence, Science Alert, ANSI, ISSN: 1815-7432, under Review, Manuscript No. 140171.
75. Kelo S. M. and Dudul S. V., "Short-Term Maharashtra State Electrical Power Load Prediction with Special Emphasis on Seasonal Changes Using a Novel Focused Time Lagged Recurrent Neural Network Based on Time Delay Neural Network Model", **Elsevier International Journal (Science Direct) on Expert Systems With Applications** ESWA-D-09-01173 (In Press)

National Journals: Published 12 (Peer reviewed/Refereed), Under Review 02

Co-authored:

1. S. V. Dudul and A. A. Ghatol, "Identification of Linear Dynamical Time-variant Systems using Feedforward Neural Network", **Journal of The Institution of Engineers (India)**, vol 84, January 2004, ISSN: 0251-1096, pp 66-71.
2. Dudul S. V. and Ghatol A. A., "Identification of a pH Neutralization Process Using the Simplest Neural Network Model," **Journal of the Institution of Engineers**, vol. 86, May 2005, ISSN: 0970-9843, pp. 18-23.
3. Dudul S. V. and Ghatol A. A., "Identification of a Continuous Stirring Tank Reactor Using Two-Layer Perceptron Neural Network Model," **The IETE Journal of Research**, Vol. 51, No. 4, July-August, 2005, ISSN 0377-2063, pp. 311-319.
4. S. V. Dudul and A. A. Ghatol, "Identification of a typical hydraulic actuator system using a neural network based ARX model," **Journal of the Instruments Society of India**, Bangalore, Vol. 36, No. 3, September 2006, pp. 159-167.
5. V.N.Ghate and Dr. S.V.Dudul, "Electric Motor: Major Causes of failure & Detection", **Electrical India**, Vol. 47, No. 2, February 2007, pp. 68-74.
6. V.N.Ghate and Dr. S.V.Dudul, "On The Condition Monitoring Of Induction Machines", **Electrical India**, August 2007 Page No.134 -138
7. Charniya N. N. and Dudul S. V., "Neural Network based Classification of Materials Types and Surface Properties," **The IETE Journal of Research**, New Delhi, Vol. 53, No. 6, November-December 2007, ISSN: 0377-2063, pp. 551-562.
8. Badjate S. L. and Dudul S. V., "Multi-step ahead prediction of Duffing Chaotic time series using focused time lagged recurrent neural network model", ADIT JOURNAL OF ENGINEERING, Vol:5, No.1, ISSN: 0973 3663, Dec-2008, pp. 51-57.

9. Raut R.D. and Dudul S. V. "Multi-class classification of cardiac arrhythmias using optimal MLP neural network", Journal of Instrument Society of India, vol. 39, issue 3, September 2009, pp. 204-208.
10. Raut R.D. and Dudul S. V. "Design and performance analysis of Intelligent Clinical Decision Support System for heart diseases using Neuro Computing Approach", IETE Journal of Research, under review, Manuscript ID No. IETE/102.
11. Raut R.D. and Dudul S. V., "Classification Performance of Single Hidden Layer MLP NN in Heart Disease Diagnosis", (ADIT), National Journal of Engineering, ISSN: 0973-3663

Single-authored: (Peer reviewed/Refereed)

12. Dudul Sanjay V. "Identification of a Liquid Saturated Steam Heat Exchanger Using Focused Time Lagged Recurrent Neural Network Model," **The IETE Journal of Research**, New Delhi, Vol. 53 No 1, Jan-Feb 2007, **ISSN 0377-2063**, pp. 69-82.
13. Dudul Sanjay V. "Classification of Radar returns from the ionosphere using RBF Neural Network," **Journal of The Institution of Engineers (India)**, Calcutta, Vol. 88, July 2007, pp. 26-33, **ISSN: 0251-1096**
14. Dudul Sanjay V. "Identification of a Steam Generator Using Focused Time Lagged Recurrent Neural Network Model," **Journal of the Institution of Engineers (India)**, Kolkata, Vol. 88, November 28, 2007, pp. 32-36, **ISSN: 0971-0469**

Original (Technical)

Papers published in Reviewed/Refereed Proceedings of the International Conferences: 43

1. S. V. Dudul, S.N. Naikwad and V. N. Madansure, "A microprocessor based maximum solar energy tracker and scope for advance computer techniques for solar photovoltaic system", Proceedings of the **International Conference** on Computer Applications in Electrical Engineering- Recent Advances, Sept. 1997, Roorkee, India, pp. 714-719.
2. S. V. Dudul, et. al., "Identification of Time-varying Dynamical Systems: a Neural Network Approach", Proceedings of the **International Conference** on Control, Instrumentation and Information Communication, held at Calcutta, December 13-15, 2001, pp.19-24.
3. Dudul S. V. and Ghatol A. A. (2002), "Prediction of Lorenz Nonlinear Dynamical Chaotic System Using Radial Basis Function Neural Networks", Proceedings of the **International Conference** on Knowledge-Based Computer Systems (KBCS-2002), **ISBN: 81-259-1428-5**, pp.421-430.
4. Dudul S. V. "Modelling of Liquid Saturated Steam Heat Exchanger Using Two-layer Perceptron Neural Network", Proceedings of the **International Conference on Industrial Mathematics (ICIWIM-2002)**, December 7-9,2002, Department of Mathematics, I. I. T., Bombay, India, pp.48-49.
5. S. V. Dudul and Mrs. R. D. Raut, "MLP Neural Network Based Classifier for Lymphography," Trends in Human Machine Interfaces, Proceedings of International Conference on Instrumentation, Dec. 19-21, 2004, Pune, Editors: S. Agashe, et al., **Thomson Learning**, 2005, **ISBN 981-265-174-8**, pp. 233-236.
6. Dudul S. V. and Mrs. Kale S. N., "Estimation of Men's Body fat using MLP Neural Network as a Nonlinear Multivariable Regressor," Proceedings of the International Conference on Instrumentation (INCON-2004), Pune (Dec. 19-21, 2004)
7. S. V. Dudul and S. R. Kalmegh, "Breast Cancer Diagnosis Using a MLP Neural Network," Proceedings of the International Conference on Human Machine Interfaces (ICHMI-2004), Dec. 20-23, 2004, Editors: B. V. Dasarathy, et al., **Tata McGraw-Hill**, 2004, **ISBN: 0-07-059757-X**, pp. 482-490.
8. Dudul S. V. and Mrs. Raut R. D., "Optimal Classifier Based on PCA Neural Network for Breast Cancer Diagnosis," Proceedings of the International Conference on Multidisciplinary Aspects of Engineering (IMAE-2005), Pune (Jan 7-8, 2005)
9. Mrs. Kale S. N. and Dudul S. V., "Determination of age of abalone using recurrent neural network as a regressor model," Proceedings of the International Conference on Multidisciplinary Aspects of Engineering (IMAE-2005), Pune (Jan 7-8, 2005)
10. Dudul S.V. and Ghatol A. A., "Identification of a Typical Hydraulic Actuator System Using a Two-layer Perceptron Neural Network Model," Proceedings of the International Conference on Multidisciplinary Aspects of Engineering (IMAE-2005), Pune (Jan 7-8, 2005)
11. Dudul S.V. and Raut R.D., "Neural network based classifier for cardiac arrhythmias," Proceedings of PECA- IFToMM International Conference PICA-2006 jointly organized by Priyadarshini College of Engineering & Architecture, Nagpur and International Federation for the CAS of Mechanisms & Machine Science, July 11-14, 2006.
12. Dudul S. V. and Kale S. N., "Demodulation of frequency modulated signal using generalized feedforward neural network," Proceedings of PECA- IFToMM International Conference PICA-2006 jointly organized by Priyadarshini College of Engineering & Architecture, Nagpur and International Federation for the CAS of Mechanisms & Machine Science, July 11-14, 2006.
13. Karule P. T, and Dudul S. V, "Optimal DSS for diagnosis of Hepatitis using RBF neural network," Proceedings of PECA- IFToMM International Conference PICA-2006 jointly organized by Priyadarshini College of Engineering & Architecture, Nagpur and International Federation for the CAS of Mechanisms & Machine Science, July 11-14, 2006.
14. Ghate VN. And Dudul S.V., "Fault detection and diagnosis of induction motor using AI techniques: a review," Proceedings of PECA- IFToMM International Conference PICA-2006 jointly organized by Priyadarshini College of Engineering & Architecture, Nagpur and International Federation for the CAS of Mechanisms & Machine Science, July 11-14, 2006.
15. Naikwad S. N. and Dudul S. V., "Identification of a typical magnetic stirrer using optimal RBF neural network model," Proceedings of PECA- IFToMM International Conference PICA-2006 jointly organized by Priyadarshini College of Engineering & Architecture, Nagpur and International Federation for the CAS of Mechanisms & Machine Science, July 11-14, 2006.
16. Dudul S. V. and Mrs. Kale S. N., "Design of MLP Neural Network Model for Demodulation of Frequency Modulated Signal," Proceedings of the First IEEE International Conference on Signal and Image Processing, ICSIP-2006, organized by B.V. Bhoomaraddi College of Engineering & Technology, Hubli, Karnataka, India, December 7-9, 2006, McMillan India, pp. 235-240.

17. Charniya N. N. and Dudul S. V., "Discrimination of material type and its surface properties using signal processing and neural networks," Proceedings of the First IEEE International Conference on Signal and Image Processing, ICSIP-2006, organized by B.V. Bhoomaraddi College of Engineering & Technology, Hubli, Karnataka, India, December 7-9, 2006, McMillan India ,pp. 215-218.
18. Raut R. D. and Dudul S. V., "Design of Intelligent Decision Support System for Diagnosis of Cardiac Arrhythmias using MLP Neural Network," Proceedings of the First IEEE International Conference on Signal and Image Processing, ICSIP-2006, organized by B.V. Bhoomaraddi College of Engineering & Technology, Hubli, Karnataka, India, December 7-9, 2006, McMillan India ,pp. 374-379.
19. Charniya N. N. and Dudul S. V., "Novel method for Classification of Material Type and its Surface Properties," Proceedings of the 4th International Conference of Electrical and Computer Engineering, IEEE International Conference, ICECE-2006, Dhaka, Bangla Desh, December 19-21, 2006, ISBN: 98432-3814-1, INSPEC AccessionNumber:9498341, Digital Object Identifier: 10.1109/ICECE.2006.355654 pp. 394-397.
20. Charniya N. N. and Dudul S. V., "Neural Networks based Auto Calibration of RTD Module: A Step Towards Development of Intelligent Sensor" Proceedings of the International Conference on Advances in Electronics & Communications, icon ADELCO-2007, Kovilpatti (T.N.), February 1-3, 2007, pp. 733-740.
21. Naikwad S. N. and Dudul S.V., "Identification of a Typical Magnetic Stirrer Using Optimal Focused Time Lag Recurrent Neural Network Model," Proceedings of the International Conference "Recent Advanced Applications of computers in Electrical Engineering" (RACE), Engineering College, Bikaner, 24-25 March 2007.
22. Karule P.T. and Dudul S.V., "RBF NN based DSS for diagnosis of Hepatitis: Differential Learning approach," Proceedings of the International Conference "Recent Advanced Applications of computers in Electrical Engineering" (RACE), Engineering College, Bikaner, 24-25 March 2007.
23. Ghate V. N. and Dudul S.V., "Failures in Squirrel -Cage Induction Motors: Causes and Analysis ," Proceedings of the International Conference "Recent Advanced Applications of computers in Electrical Engineering" (RACE), Engineering College, Bikaner, 24-25 March 2007.
24. Kelo S.M. and Dudul S.V., "A Novel focused time-lagged recurrent neural network with gamma memory filter for short term electrical load forecasting," Proceedings of the International Conference "Recent Advanced Applications of computers in Electrical Engineering" (RACE), Engineering College, Bikaner, 24-25 March 2007.
25. Dakhole P.T. and Dudul S.V., "Realization of Quaternary Logic Cells Using Threshold Voltage Approach of CMOS Devices," Proceedings of the International Conference "Recent Advanced Applications of computers in Electrical Engineering" (RACE), Engineering College, Bikaner, 24-25 March 2007.
26. Badjate S.L. and Dudul S.V., "A Novel Neural Network Model for Short Time Prediction of Chaotic Mackey Glass Time Series ," Proceedings of the International Conference "Recent Advanced Applications of computers in Electrical Engineering" (RACE), Engineering College, Bikaner, 24-25 March 2007.
27. Badjate S.L. and Dudul S.V., "Prediction of Mackey-Glass Chaotic Time Series using Focused Time Lagged Recurrent Neural Network Model", IEEE INDICON-2007, CPRI, Bangalore, 6-8 September 2007.
28. Kale S.N. and Dudul S.V., "Removal of Noise From EMG Signal Using Focused Time Lagged Recurrent Neural Network", International Conference on Advances in Computer Vision and Information Technology (ACVIT-07), Dr. Baba Saheb Marathwada University, Aurangabad, ISBN: 978-81-89866-74-7, I.K. International, 28-30 November, 2007, pp. 429-438.
29. Raut R.D. and Dudul S.V., "Optimal DSS for Diagnosis of Cardiac Arrhythmias using PCA Neural Network", International Conference on Advances in Computer Vision and Information Technology (ACVIT-07), Dr. Baba Saheb Marathwada University, Aurangabad, ISBN: 978-81-89866-74-7, I.K. International, 28-30 November, 2007, pp. 406-413.
30. Charniya N.N. and Dudul S. V. "Development of Sensors for Classification of Materials types using Neural Networks", IEEE Computer Society sponsored International Conference on Computer Networks and Multimedia Applications, Mepco College of Engineering, December 2007, Sivakasi, pp. 174-178.
31. Charniya N.N. and Dudul S. V. "Development of Sensors for Classification of Materials types using Radial Basis Function Neural Network", International Conference on Signal Processing and Communication Networks and Applications, Madras Institute of Technology, January 2008, Chennai, pp. 394-398.
32. Kharat G.U and Dudul S. V., "Emotion recognition from facial expressions using SVM", International Conference on Emerging Technologies and Applications in Engineering, Technology and Sciences (ICETAETS-2008), 13-14 January 2008, Saurashtra University, Rajkot, pp. 2243-2248.
33. Kharat G.U and Dudul S. V., "Discrete Cosine Transforms for facial emotions recognition using SVM", International Conference SPIT-IEEE colloquium, Saradar Patel College of Engineering, Mumbai, 4-5 Feb. 2008.
34. Kharat G.U and Dudul S. V., "FFT for emotion recognition from Facial Expressions using SVM", ACM International Conference on Advances in Computing (ICAC2008), Feb 21-22, 2008, Anuradha College of Engineering, Chikhali , pp. 89-92, ISBN 978-81-906457-1-3
35. Badjate S.L. and Dudul S. V., "Prediction of Mackey-Glass Chaotic Time Series with effect of superimposed Noise using FTLRNN model", Proceedings of the Fourth IASTED International Conference Advances in Computer Science and Technology (ACST 2008), April 2-4, 2008, Langkawi, Malaysia, ISBN: 978-0-88986-730-7, pp. 384-389.
36. Kharat G. U. and Dudul S. V., "Performance Comparison of Facial Feature Extraction Techniques in Designing Human Emotion Recognition System Using Optimal SVM" Paper ID - 586-422, Proceedings of the 7th WSEAS International Conference ACACOS '08, Hangzaou, China, April 6-8, 2008, ISSN: 1790-5117, ISBN: 978-960-6766-49-7 p.423-428
37. Kharat G. U. and Dudul S. V., "Emotion Recognition from Facial Expression Using Neural Networks" ,2008 International Conference on Human System Interaction HIS'08, Krakow (Poland), May 25- 27, 2008, IEEE Catalogue No. 08EX1995C, ISBN 1-42441543-8, pp. 422-427.
38. Kharat G.U. and Dudul S. V. "Neural Network Classifier for Human Emotion Recognition From Facial Expression using Discrete Cosine Transform", Proceedings of International Conference on Emerging Trends in Engineering, Nagpur (India), July 16-18, 2008, ISBN 978-0-7695-3267-7, pp. 653-668.
39. Raut R.D. and Dudul S.V., "Arrhythmia Classification with MLP Neural Network and Statistical Analysis", Proceedings of International Conference on Emerging Trends in Engineering, Nagpur (India), July 16-18, 2008, ISBN 978-0-7695-3267-7, pp. 553-558.
40. Ghate V. N. and Dudul S. V., "Generalized model of three-phase induction motor for fault analysis", 2008, SIBIRCON 2008, IEEE Region 8 International Conference, 21-25 July 2008, pp. 232-237.
41. Badjate S. L., Dudul S. V., "Prediction of Duffing Chaotic time series using focused time lagged recurrent neural network model" Proc. Of the International conference IEEE TENCON -2008., Hyderabad dated 18- 21st Nov. 2008

42. Karule P. T. and Dudul S. V., "Intelligent Diagnosis of Liver Diseases from Ultrasonic Liver Images: Neural Network Approach", 13th International Conference on Biomedical Engineering 2008 (ICBME2008), December 3-6, 2008, Singapore, pp. 215-218, 2009, Available online on www.springerlink.com
43. Raut R.D. and Dudul S.V., "Distance learning applications in telemedical: clinical decision support system for cardiac arrhythmias using neural network approach", Proceedings of International Conference on Indian Distance Education Association, IDEA 2008, Institute of Distance and open learning, Guwahati University, Assam, pp. 125-130.
44. Raut R.D. and Dudul S.V., "Intelligent Diagnosis of Heart Diseases using NN Approach", Proceedings of ACM International Conference on Futuristic Computer Applications, ICFCA-2010, IISC, Bangalore, Paper Accepted for publication.

Review Papers

Reviewed Proceedings of the National Conferences/Seminars/Symposium:

17

1. K. C. Jain, S. V. Dudul, "Routing Algorithms: Evolving Trends", National Seminar on "Information Technology- Current Trends" IT-CT 2000, 22-24 January, 2000, P. G. Department of Computer Science, Amravati University, Amravati.
2. Dr. A. A. Ghatol, S. V. Dudul, "Wireless Internetworking Technologies: Concepts, Design Aspects, and Evolving Trends", Proceedings of National Seminar on "Information Technology- Current Trends" IT-CT 2000, 22-24 January, 2000, P. G. Department of Computer Science, Amravati University, Amravati.
3. K. C. Jain, S. V. Dudul, "Congestion Control in Communication Networks: Principles, Issues, and Evolving Trends", Proceedings of Regional Conference on Computing, Computer Society of India, Indore, 11th and 12th March 2000, pp.19-28.
4. K. C. Jain, S. V. Dudul, "Parallel Computing Capabilities Enhancements for Multiprocessors: Techniques and Issues", Proceedings of National Conference on Microcomputers, Computer Society of India, Ahmedabad, April 2000, pp. 1-12.
5. K. C. Jain, S. V. Dudul, "Fuzzy Logic based Medical Diagnosis", Proceedings of Symposium on Intelligent Nuclear Instrumentation 2001, INIT 2001, Feb. 6-9, 2001, Department of Atomic Energy, pp. 461-464.
6. K. C. Jain and S. V. Dudul, "Impact of IT in Business Functions", Souvenir of the National Seminar on Information Technology Revolution and Human Resource Management, organized by Deptt. Of Management Studies, Vidybharti Mahavidyalaya, Camp, Amravati, on 11th and 12th Jan. 2002.
7. S. V. Dudul and K. C. Jain, "Data Compression with Transform Coding", Proceedings of the National Conference on Integral Transforms and its Applications in Science and Engineering, organized by Department of Maths, S.S.G.M.C.E., Shegaon, on 16-18 Feb., 2002, pp. 16-22.
8. Dr. A.A. Ghatol and S.V. Dudul, "Integral Transforms in System Identification", Proceedings of the National Conference on Integral Transforms and its Applications in Science and Engineering, organized by Department of Maths, S.S.G.M.C.E., Shegaon, on 16-18 Feb., 2002, pp. 5-10.
9. K.C. Jain and S.V. Dudul, "Correspondences in the Two Domains of Fourier Transforms", Proceedings of the National Conference on Integral Transforms and its Applications in Science and Engineering, organized by Department of Maths, S.S.G.M.C.E., Shegaon, on 16-18 Feb., 2002, pp. 11-15.
10. K.C. Jain and S.V. Dudul, "Mathematical Modelling and Simulation of Solar Driers for food", Proceedings of the National Conference on Environment Friendly Chemical Technology, organized by the Department of Chemical Technology, Amravati University, Amravati on 7-8 Feb. 2002, pp. 46-52.
11. Mrs. Raut R. D. and Dudul S. V., "Artificial Neural Networks in Cardiology", Proceedings of the National Conference on Intelligent Systems and Networks (ISAN2004), February 27th-28th, 2004, Haryana Engineering College, Jagadhri, pp. 4-8.
12. Raut R. D. and Dudul S. V., "ECG Signal analysis using neural network", Proceedings of the National Conference on Intelligent Systems and Networks (ISAN2005), Haryana Engineering College, Jagadhri, pp. 19-25.
13. Raut R. D. and Dudul S. V., "Neural network based cardiac arrhythmias classification", Proceedings of the National Symposium on Instrumentation (NSI-31, Instrument Society of India, IITM, Gwalior (MP), pp. 1-5.
14. Raut R. D. and Dudul S. V., "Artificial Neural Network based cardiac abnormalities detection and classification", Proceedings of the National Convention and Seminar on Advances in Electronics and Telecommunications, Vision 2020, Institution of Engineers (I), Jaipur, Rajasthan State Centre, pp. 20-23.
15. Raut R. D. and Dudul S. V., "ANN based classifier for ECG arrhythmias diagnostic system", Proceedings of the National Symposium Instrumentation, NSI-31, Department of Instrumentation and Sophisticated Test and Instrumentation Center, Cochin University, Cochin, pp. 95-98.
16. Dudul S. V. and Kale S. N., "Transformation from an instructivist to constructivist multimedia learning environment," IX State Convention of Maharashtra and Goa Section and National Seminar on Revamping Technical Education to make it synergistic with information revolution, 4-5 February 2005, organized by Government College of Engineering, Amravati
17. Kharat G.U. and Dudul S.V., "Speech Emotion Recognition Using Multi-layer Perceptrons", Proceedings of IEEE National Conference on Artificial Intelligence System organized by Hindu College of Engineering, Sonapat, 13-15 March 2008, (Haryana)

Original (Technical)

Amravati University Research Journals (Refereed): 03

Single-authored:

1. S. V. Dudul, "Support Vector Machine Based Optimal Classifier For Breast Cancer Diagnosis," Amravati University Research Journal, Volume 1(1), 2004, pp. 57-62.
2. Dudul S. V. (2002), "Identification of Duffing's Nonlinear Dynamical Chaotic System Using Radial Basis Function Neural Networks", *Amravati University Research Bulletin*, 1(1), 2002, pp. 1-6.

Co-authored:

3. Dudul S. V. and Ghatol A. A., "Identification of Nonlinear Inverted Pendulum System Using Two-Layer Feedforward Neural Network," *Amravati University Research Bulletin*, 1(2), 2003, pp. 14-19.

Review Papers

Other articles: 04

Single-authored:

1. S. V. Dudul, "Intel's ASIC Core Cell for widening the abilities of an 80C51 based Systems - a Review", The Course Material for the AICTE-ISTE sponsored short term course on "Microcontrollers and Electric Drives", Government Polytechnic, Amravati, Sept. 14-25, 1998, pp. 15.1-15.2
2. S. V. Dudul, "Optical Networking", An invited paper in Proceedings of one day state level technical paper conference on Future Trends in Engineering and Technology, Government Polytechnic, Amravati, 17th March, 2001, pp. xix-xxii.

Co-authored:

3. S. V. Dudul, P. S. Revankar, "Robust Microcontroller Systems in Electrically Noisy Environments- Design Issues", The Course Material for the AICTE-ISTE sponsored short term course on "Microcontrollers and Electric Drives", Government Polytechnic, Amravati, Sept. 14-25, 1998, pp. 19.1-19.4
4. K. C. Jain and S. V. Dudul, "Curriculum Developments: Some Issues" Proceedings of the Workshop on "Energizing Curriculum for Upgradation of Standards" organized by Amravati University, Amravati on 14th and 15th July, 2001

Original (Technical)

Papers Accepted For Oral Presentation And Publication In Reviewed/Refereed Proceedings Of International Conferences At Abroad: 05

1. Dudul S. V. and Ghatol A. A. "Identification of a Typical Hydraulic Actuator System Using Two-layer Perceptron Neural Network Model", accepted at the Third International Conference on Intelligent Systems Design and Applications, August 10-13, 2003, Tulsa, **USA**.
2. Dudul S. V. and Ghatol A. A. "Identification of a Continuous Stirring Tank Reactor Using Two-layer Perceptron Neural Network", accepted at the 4th International Conference on Control and Automation (ICCA-2003), June 10-12, 2003, Montreal, **Canada**.
3. Dudul S. V. and Ghatol A. A. "Identification of Steam Generator Using Two-layer Perceptron Neural Network", accepted at the 7th International Conference on Knowledge-based Intelligent Information and Engineering Systems (KES-2003), Sept. 3-5, 2003, Oxford, **UK**.
4. Dudul S. V. "Identification of a Liquid saturated Steam Heat Exchanger Using focused Time lagged recurrent neural network model" Second International Conference on Informatics in Control, Automation and Robotics, Sept. 14-17, 2005, Barcelona, **Spain**
5. Dudul S. V. "Identification of a Steam Generator using FTLRNN with gamma memory filter" IASTED International Conference on Intelligent Systems and Control, ISC 2005, Oct. 31-Nov. 2, 2005, Cambridge, **USA**

Proposals :

Instruments Maintenance Facility (IMF) by UGC under 10th Plan and 11th Plan

Renovation of Central Instrumentation Cell: State Govt of Maharashtra

Fabrication Laboratory at Sant Gadge Baba Amravati University

Under Rajiv Gandhi Chair submitted to the UGC Diploma Course in Computer Engineering is proposed at SGB Amravati University

Advance diploma in VLSI Engineering for women (UGC)

Kabir Chair: UGC

Information Communication and Computer Education: UGC

Development of Intelligent Humidity Analyzer/Detector using Neural Network Approach

Other Activities:

Social:

Extension Services:

Working as a Coordinator of the "Centre for Awareness of Conservation of Energy" established at the Department of Applied Electronics, Amravati University, Amravati. Under this extension activity, basic lessons of energy conservation are taught to the common masses especially from villages in joint collaboration with BPCL and Maharashtra State Electricity Board. Organized seminars, workshops, and exhibitions in villages to inculcate awareness for energy conservation amongst common public. The various activities conducted so far are as follows.

- ❑ Exhibition and Workshop on Conservation of Energy on 27/03/2002 at the Department in collaboration with the BPCL
- ❑ Workshop on Conservation of Energy on 29/03/2003 at MIDC, Amravati in collaboration with the MSEB
- ❑ Model/Poster exhibition on Conservation of Energy on 17/02/2004 at Sarangpur, a small village in the District of Yavatmal in Maharashtra (under *Gram Janhit Vigyan Manch*)
- ❑ Inter-collegiate Model/Poster exhibition on Conservation of Energy and Invited guest lecture on 06/08/2005 at the Dept
- ❑ One Day workshop and Model/poster exhibition on "Conservation of Energy" at Shriram Vidyalaya, Vadali, Amravati organized by the P. G. Department of Applied Electronics, Sant Gadge Baba Amravati University, Amravati on 14 February 2007
- ❑ One Day workshop and Model/poster exhibition on "Conservation of Energy" at Shriram Vidyalaya, Vadali, Amravati organized by the P. G. Department of Applied Electronics, Sant Gadge Baba Amravati University, Amravati on 7 March 2008

Participation in Co-curricular/Extra Curricular Activity:

University level: worked a **member of Central Admission committee**

Worked as a member of Seminar Competition conducted on the occasion of National Science Day Celebrations-2002,
Worked as a member of the “Popular Science Lectures” organized on the occasion of National Science Day Celebrations-2003 and conducted the entire program.

Worked as a member of the committee constituted for “Organization of Conferences/Workshops/Symposia/Seminars”.

Worked as a member of the Exhibition Committee for Ashwamedh-2003,

worked as a convener of Seminar Competition in NSD-2004 celebrations,

worked as a convener of Popular lectures and slide/scientific film show in NSD-2005 celebrations.

1. Seating Arrangement and Reception for Convocation every year,
2. Cultural Gathering from 28 Feb-1 March, 1995,
3. Science Exhibition Committee for National Science Day Celebrations in 1997,
4. Seminar Competition Committee for National Science Day Celebrations in 2000,
5. Seminars Committee for National Science Day Celebrations in 2002,
6. Popular Science Lectures Committee for National Science Day Celebrations in 2003.

Worked as a Judge for the Seminar Competition and Debate Competition held for the students on the occasion of Cultural gathering and National Science Day Celebrations.

Worked as a member of escort and reception committee at the time of UGC Tenth Plan Committee visit to the university
Made PowerPoint presentation for NAAC team in exhibition hall

Worked as a member in Committee constituted for Installation of CCTV at Centralized Valuation Building, Preparation of Manual for Students profile,

Exhibition Committee for NAAC,

Post-Assessment Activity of NAAC: Collect the feedback from the students, Extra-curricular/cultural activities in the various teaching Departments, Books in the departmental library, Regional, state, national, international seminars/workshops/conferences/symposia organized in the Department

University level activities: membership

- Senate** of SGB Amravati University from 27 October 2005 to 6 March 2009
- Purchase Committee**
- Internal Quality Assurance Cell** of SGB Amravati University
- NAAC** of SGB Amravati University (2001-2002)
- Board of Studies of Electronics & Communications Engg** of SGB Amravati University From 1.04.2004
- Board of Studies of Electronics, RSTM Nagpur University, Nagpur from November 2005
- Board of Studies of Electronics & Communications Engg.(Govt. Polytechnic, Amravati) from 1.04. 2004
- Research Recognition Council** of SGB Amravati University from 1.04.2004
- Board of University Teaching & Research** of SGB Amravati University from 1.04.2004
- Faculty of Engineering & Technology of SGB Amravati University w.e.f. 9.12.2007**
- 32(5)** of SGB Amravati University from 1.04.2004
- Women-grievance committee of SGB Amravati University from 1.04.2004
- Popular talks committee of TRDEA of SGB Amravati University from 1.04.2004
- Industry-institute interaction cell of SGB Amravati University from 1.04.2004
- Co-editor of Amravati University Research Journal** from 2002
- Director of Central Instrumentation Cell of SGB Amravati University from 4.7.2005 to 26.3.2007
- Academic Services Unit of the Central Instrumentation Cell of SGB Amravati University from July 2005
- Academic Services Unit of the Computer Centre of SGB Amravati University (2004-2005)
- Proposal making for Silver Jubilee Celebrations**
- “Smaranika Prakashan” for Silver Jubilee Celebrations**

Actively contributed to the Website design of the university

Department-level activities:

Departmental admission committee, Overall Laboratory in-charge, Looking after Extension activities, Exploring new avenues for consultancy, Preparation of Budget for the Department, Preparation of Academic Audit Report, Preparation of Report on Developmental Information Students are offered counseling about placement. They are trained in writing good effective resumes, facing competitive examinations and personal interviews, etc.

Students’ seminar contests, group/panel discussion on a topic, students’ paper-writing competition and exhibitions displaying models/prototypes. As need arises, I also encourage students to have a special display of principal concept/event/point in a topic. Normally, Teachers’ day, Engineers’ day, and National Science days are celebrated to commemorate great towering personalities of India, namely, Dr. S. Radhakrishnan, Dr. M. Visvesaraiya, and Dr. C. V. Raman, respectively.

Competence and proficiency in operation of sophisticated analytical instruments:

Handled analytical instruments such as Spectrum Analyzer, Oscilloscopes, Digital IC testers, EPROM Programmers, etc

Competence and proficiency in programming languages and computer software development

C, C++, Microsoft Visual Studio, MATLAB, NeuroSolutions, Microsoft Office, Lotus Smart Suite, Macromedia Flash, Macromedia Dream weaver, Adobe PageMaker, Adobe PhotoShop, Cool Edit, Sound Forge, Adobe Premier, Borland's Turbo C++, Nonlinear Dynamics, Adobe Acrobat 5.0

Competence in teaching/evaluation of Computer courses:

Artificial Intelligence,
Neural Networks,
Digital Computer Organization & Architecture,
Computer Networks,
Data Communications,
Digital Image Processing,
Digital Signal Processing,
System Simulation,
Machine Learning,
Expert Systems,
System analysis and design,
System Identification,
Programming languages, C and C++,

Worked as expert for interview/ assessment/guidance:

Worked as Subject expert for number of times on various selection committees for the appointment/Career advancement of Lecturers, Assistant Professors and Professors, enquiry committee for the affiliation of a new course to the Sant Gadge Baba Amravati University

Worked as a Member on Committee for examinations

Other University : B.E. and M.E.: Paper setting, project/practical viva-voce examination for Nagpur University, Nagpur, M. E. Computer Thesis examination, University of Pune, Pune, Shivaji University, Kolhapur

Worked as Member on Committee for examination of this University:

Member on paper setting committee, Member on paper valuation/moderation committee, Internal/External Examiner for Practical and project Examinations

Personality Development of Students:

i. Undertaken various competitions:

Group Discussions, Seminar Competition, Debate & Technical Exhibition

ii. Offers guidance for - :

GATE & IES Examination

iii. Undertaken inter departmental activities:

Seminar Competitions, Quiz, Debate, Seminars, Poster Presentation, exhibition

iv. Special guidance for skills improvement :

Lectures on Personality Development, How to improve communications skills, How to write a technical paper, Effective Learning Methodologies, how to write an effective resume, how to face a competitive examination, how to face personal interview,

v Extra Mural Activities:

Exhibition on Conservation of Energy at the Dept. of Applied Electronics and one day workshop on "Conservation of Petrol, Diesel, and LPG" on 27-03-2002, Exhibition on Conservation of Energy on 17-02-2004 and 06-08-2005. One-Day Workshop on "Conservation of Electricity" at MIDC, Amravati on 29/03/2003

vi. Laboratory Management:

Setting of the laboratory, Equipment Testing, Maintenance of equipments, finalizing list of the equipments to be purchased, maintaining students' discipline in lab, overall supervision of laboratories

All of the information furnished above is true to the best of my knowledge and belief.

Amravati

Dr. Sanjay Vasant Dudul,

- 2010

Professor and HOD, P.G. Dept of Applied
Electronics, Faculty of Engineering and
Technology,
SGB Amravati University, Amravati – 444 602