

CURRICULUM VITAE

M.Venkateswara Rao
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WORK EXPERIENCE:

2004- to date Assoc. Prof.	Dept. of BME, Osmania University	Hyderabad
1987 – 2004 Asst. Professor	Dept. of BME, Osmania University	Hyderabad
1993 – to 2008 Director, BMIC	Dept. of BME, Osmania University	Hyderabad
1986 - 87 Lecturer	MJCET	Hyderabad
1982 - 86	DST & DOE sponsored Projects	Hyderabad
JRF/SRF	Department of ECE, OU	

ACCOMPLISHMENTS:

- Authored 44 papers in peer-reviewed journals and conference proceedings (listed herewith).
- Established Biomedical Instrumentation Lab and Biomedical Equipments Labs (for the first time) in the Dept. of BME, Osmania University.
- Developed Biomedical Signal processing Laboratory in BME dept. (OU)
- As coordinator conducted two short term courses on “Recent Trends in Power Electronics” and “Recent Advanced in Power Electronics”.
- As Director, Biomedical Instrumentation Center, took several industrial Consultancy projects and established English language Laboratories at several Engineering colleges.
- Developed certain Biomedical Electronics devices (nerve/muscle stimulator, Activity cage, Bone growth stimulator etc) for production.

- Established Elctro-Oculography lab at NIMS, Department of Neurology, Hyderabad.
- Developing a “Hospital Medical Equipment Engineering Centre” to cater to the needs of BME students and Hospitals servicing their equipments.

PROFESSIONAL CONSULTANCY:

1. Consultant to M/s Cidel inc. for the development of RFID based attendance and security system for 100 employees.
2. Consultant to M/s Net India Pvt. Ltd., for the development of PIANO MAIL, a portable gadget for sending and receiving of e-mails from any PCO, by using Acoustic or wired couplings.
3. Consultant to M/s Elmot Industries Pvt. Ltd., for the development of Chopper based soft starter for 75 hp Dc drive.
4. Consultant to M/s Centronix, for the development of Activity cage.
5. Developed Phrenic Nerve pace maker, Anesthesia analyzer in co-ordination with NIMS, and awaiting for potential manufacturer.
6. Visiting faculty – ESCI, ATI (Ramanthapur), etc. (for details refer annexure –I)
7. Took classes for GATE students at ACE, and Vani instisutes. The subjects handeled include Power Electronics; Micro processors; Electrical measurements: Transducers.

PUBLICATIONS:

INTERNATIONAL PUBLICATIONS:

1. Suman Dabbu, B.Guru Prakash, **M.Venkateswara Rao**, Y.Sai Chaitanya, Rahul Bharadwaj “EFFECT OF ANCIENT TECHNIQUES OF YOGA ON PHYSIOLOGICAL PARAMETERS OF THE PATIENTS SUFFERING FROM ASTHMA AND HYPERTENTION” [IJESAT] International Journal of Engineering Science & Advanced Technology, Volume-2, issue-4, 846-850; ISSN:2250-3767.
2. V.Hima Kumar, Dr.I.Shanti Prabha and **M.Venkateswara Rao**, “Wireless Safety Systems for Mines” International Journal of Electronics Communication and Computer Engineering (IJECCE), Volume-3, Issue-5, Sept,-2012.
3. P. Nageswara Rao, Dr.I.Shanti Prabha and **M.Venkateswara Rao**, “Bearing Fault Detector” International Journal of Electronics Communication and Computer Engineering (IJECCE), Volume-3, Issue-5, Sept,-2012.

4. **M.Venkateswara Rao**, Dr.G.Prashanthi, Mahesh. Kakarla, "**Solar Pumping**" International Journal of Engineering Science and Advanced Technology, volume-2, issue-5, 1435-1439.
5. **M.Venkateswara Rao**, Dr.I. Snati Prabha, G.S.S.Prasad, "Handheld measuring device for multiple parameters, in Wood and ceramic Industries" International Journal of Engineering Science and Advanced Technology, volume-2, issue-5, 1416-1419.
6. D.Suman, **M.Venkateswara Rao**, Dr.Kakarla subba rao "**Spectral analysis of ECG and Respiration to yield the interdependencies of the cardiac and respiratory systems**" at International symposium on devices, MEMS, and intelligent systems-2011(ISDMISC-2011) published by the international journal on computer applications (IJCA), at Sikkim Manipal university, Sikkim during 12-14th, April, 2011.
7. D.Suman, **M.Venkateswara Rao**, V sanjanna "**Statistical removal of Ocular artifacts of EEG by using Stationary wavelet Transform**" at an International Conference on Biomedical information and Bioengineering-2011 held in Chengdu, China during, January 14 -15, 2011 organized by IEEE & IACSIT.
8. D.Suman, **M.Venkateswara Rao**, Dr.Kakarla Subba rao "**Microcontroller based Heart rate Variability analysis during different breathing patterns**" at National Symposium on Instrumentation-35 (NSI-35) organized by Instrumentation Society of India, IISC Bangalore and Visvesvaraya University, Belgaum during, January 4 -7, 2011.
9. **M.Venkateshwara Rao**, Kiran Kore, D.Suman "Design Of RF Source Generator For Hyperthermia Treatment Of Cancer By Using Nanoparticles" "2nd International conference on Nanotechnology and biosensors- ICNB-2011" organized by INTERNATIONAL ACCREDITATION COUNCIL OF QUALITY EDUCATION AND RESEARCH (IACQER) at to be held in Raghu Engineering college, Vizag, during 28th and 29th Dec 2011.
10. **M.Venkateshwara Rao**, Kiran Kore, D.Suman "Cancer therapy using Nanoparticles" in International conference on Nanomaterials and nanotechnology- ICNANO-2011" to be held in University of Delhi, Delhi, during 18th to 21st Dec 2011.
11. **M.Venkateswara Rao**, CH. Satyavathi, Dr.I.Shanthi Prabha, "Wireless sensor networks for factory automation", " 2nd International conference on Electrical and electronics Engineering" ICEEE-HYD, Nov-11-12, 2011
12. **M.Venkateswara Rao**, Bejugam Santosh Kumar, Dr. Borje Norlin, " Parameter extraction for tremor signals" " 2nd International conference on Electrical and electronics Engineering" ICEEE-HYD, Nov-11-12, 2011

13. **M.Venkateswara Rao**, Sanjanna V, Dabbu Suman, "Stationary Wavelet Based Statistical Approach for Ocular Artifacts Removal in The EEG Signal", "International Conference on Medical Information and Bioengineering (ICMIB 2011)" held in Chengdu, China during January 14-15, 2011.
14. Haitham Hassan Ahmed, D.Suman and **Venkateswara Rao M**, "Design and Development of RF-Hyperthermia Unit for Cancer Treatment", The Third International Conference on Frontiers in Nano Science and Technology (Cochin Nano 2011), Department of Physics, cochin University of Science & Technology, August 14-17, 2011.
15. **M.Venkateswara Rao**, Thirupathanna Kurva, Dabbu Suman, "Dicrotic Notch Detection and Analysis of Arterial Pulse by using Discrete Wavelet Transform", "International Conference on Medical Information and Bioengineering (ICMIB 2011)" held in Chengdu, China during January 14-15, 2011.
16. K.Harish, **M.Venkateswara Rao**, Dr. Ropam Borgohain, "Tremor Quantification and its Measurements on Parkinsonian Patients", International Conference on Biomedical and Pharmaceutical Engineering, ICBPE 2009, Singapore.
17. **Venkateswara Rao Meka**, Dr. Jyotsna Rao E, Sandeep Kumar Ganji, Shravan Kumar Lakumarapu, Ganesh Kolupula, Mir Arbar Tuazon Ali, "A Mathematical correlation for estimating Dopamine concentration using other chemical components found in a normal Magnetic Resonance Spectroscopic and PET/CT study", World Molecular Imaging Congress, September 10-13, 2008.
18. **Venkateswara Rao Meka**, Sandeep Kumar Ganji, Mir Arbar Tuazon Ali, "Correction of motion artifacts in magnetic resonance images using a combination of edge correction and correlation detector functions", World Molecular Imaging Congress, September 10-13, 2008.
19. **Venkateswara Rao Meka**, Mir Arbar Tuazon Ali, Sandeep Kumar Ganji, "Drug Delivery by Optically controllable Green Fluorescent Proteins", World Molecular Imaging Congress, September 10-13, 2008.
20. **Venkateswara Rao Meka**, Mir Arbar Tuazon Ali, Sandeep Kumar Ganji, Manigandan S, "Study of Pharmacokinetics and Pharmacodynamics of Drug-membrane Interaction using Quantum Dots: A Model", World Molecular Imaging Congress, September 10-13, 2008.
21. Mrs. Y.Padmasai, Dr. K.Subba Rao, **Venkateswara Rao M**, Mrs. Malini, "Data Acquisition System for the Analysis of Sleep Disorders", International Conference on Systems, Cybernetics and Information ICSCI-2006, January 04-08-2006, Hyderabad.
22. Borgohain Rupam, S.Sitajaya Lakshmi, **M.Venkateswara Rao** and S.Mohan Dass, "Eye movements in Parkinson's disease", XII International Congress on Parkinson's disease, July 24-28, 1999, Ven Couver, Canada.

23. **Venkateswara Rao M**, Reddy D.C., Reddy G.M.M. and Pandit S.N.N., "The Inspiration and Expiration DFT Spectra for the detection of Airways Obstruction in human being", Signal Processing 13(1987) 255-285, North Holland.
24. Rao K.S., Reddy D.C., **Rao M.V.**, and Divakar D.V., "Breathing Maneuvers for Detection of Airways Obstruction and Restriction", IEEE proceedings of Frontiers of Engineering of Computing in Health Care, Chicago, U.S.A., September 1995.
25. **Venkateswara Rao M**, Reddy D.C., Reddy G.M.M. and Pandit S.N.N., "Statistical Analysis of the Inspiration and Expiration FFT Spectra for Detection of Airways Obstruction in Humans", IEEE proceeding volume 3, PP 1427-1431, December 1984.
26. Reddy G.M.M., Reddy D.C. and **Venkateswara Rao M**, "Multichannel FFT Analyzer for Respiratory Signals", IEEE proceedings of International Conference on System, Man and Cybernetics Volume 1, PP 332-335, December 1983.

NATIONAL PUBLICATIONS:

1. M.Ramakrishna Reddy, **M.Venkateswara Rao**, Prof. Kakarla Subba Rao, Dr. Rupam Borgohain, "Non-invasive beat to beat blood pressure measurement using pulse transit time", National Symposium on Instrumentation (NSI-35), conducted by Visvesvaraya Technological University, Belgaum, Instrumentation Society of Indian Institute of Sciences (IISC), Bangalore, January 2011.
2. "Microcontroller based Heartrate Variability analysis during different breathing patterns", selected for oral presentation at National Symposium on Instrumentation (NSI-35), January 7-9, 2011 at Visvesvaraya Technological University (VTU), Belgaum and Instrumentation Society of Indian Institute of Sciences (IISC), Bangalore.
3. R.Uday kumar, **M.Venkateswara Rao**, Prof. Kakarla Subba Rao, Dr. Rupam Borgohain "Microcontroller based Tremor Quantification", National symposium on Instrumentation (NSI-35) conducted by Visvesvaraya Technological University (VTU), Belgaum and Instrumentation Society of Indian Institute of Sciences (IISC), Bangalore.
4. Thirupathanna K, **Venkateswara Rao M**, Suman Dabbu, "Non-invasive Diagnosis of Arterial Sclerosis by using wavelet detection of Dicrotic Notch", selected for oral presentation at National Symposium on Instrumentation (NSI-35), January 7-9, 2011 at Visvesvaraya Technological University (VTU), Belgaum organized by Instrumentation Society of Indian Institute of Sciences (IISC), Bangalore.

5. **M.Venkateswara Rao**, Dr. M.Sailaja, K.Harish, B.Harinatha Reddy, "Non-Invasive Beat-to-Beat BP Measurement", National Conference on Biotechnology, Bioinformatics and Bioengineering [BBB], December 17-18, 2010
6. Presented a paper on "Stationary Wavelet Based Statistical Approach for Ocular Artifacts Removal in the EEG Signal", National Level Conference on Control Instrument System Conference 2010 (CISCON-2010) held in the month of November 2010 at MIT, University, Manipal, Udipi.
7. D.Suman, **M.Venkateswara Rao** Dr.Kakarla Subba rao "**Analysis of ECG and Pulse by using Discrete Wavelet Transform**" at a National Level Conference on Control Instrument System Conference 2010 (CISCON-2010) held in the month of November 2010 at MIT, University, Manipal, Udipi.
8. D.Suman, **M.Venkateswara Rao**, Dr.Kakarla Subba rao "**De noising of EEG by using Stationary Wavelet Transform**" in national "Control Instrumentation Conference" (CISCON-2010) held in MIT, Udipi, Bangalore during November 2010.
9. Presented a paper on "Dicrotic Notch Detection and Analysis of Arterial Pulse by using Discrete Wavelet Transform", National Level Conference on Control Instrument System Conference 2010 (CISCON-2010) held in the month of November 2010 at MIT, University, Manipal, Udipi.
10. **M.Venkateswara Rao**, Madhavi K, "Analysis of Smooth Pursuit Eye Movement", 1st AP Science Congress on Emerging Trends in Science and Technology, November 14-16, 2008.
11. Tejaswini V, **M.Venkateswara Rao**, Dr. Roopam Borgohain, "Effect of Deep Brain Stimulation (DBS) on Autonomic Nervous Functions (ANF)", 1st AP Science Congress on Emerging Trends in Science and Technology, November 14-16, 2008.
12. **M.Venkateswara Rao**, V. Malini, Dr. K.Subba Rao, Dr. M.U.R.Naidu, "Microcontroller based EOG Stimulator", National Conference on Biomedical Engineering (NCBME 2004), Gandhi Institute of Technology and Management (GITAM) Visakhapatnam, December 23-24, 2004.
13. Mrs. Dr. D.Vasanta, Dr. Roopam Borgohain, and **M.Venkateswara Rao**, "Spatial vs Symbolic cognition: The case of William Syndrome", First National conference on Neurology, Language and Cognition – 2000, December 20-22, 2000, Kerla.
14. **Venkateswara Rao M**, "Stimulators for Medical Applications", Silver Jubilee Celebration, Instruments Society of India, Hyderabad, August 25-26, 2000.

15. Ms. V.Mallika, **Venkateswara Rao M** and R. Borgohain, "Pherenic Nerve Pacemaker", National Conference on Biomedical Engineering, April 21-22, 2000, Roorkee.
16. M S Venkata Raju, **M.Venkateswara Rao** and K.Aruna, "Quantitative Anaesthesia Analyzer", 5th National Conference on Biomechanics, 1996.
17. Nagesh and **Venkateswara Rao M**, "Microprocessor based Activity cage", Proceedings of the First regional Conference IEEE Engineering in Medicine & Biology Society, 14th Conference of the Biomedical Engineering Society of India, 1995.
18. Madhusudhan K, Reddy D.C., Murthy K.J.R., **Venkateswara Rao M.**, "Exponential Function Approximation of Forced Expired Volume Signals in Detection of Airways Obstruction" Symposium Record, Electronics and Communication in the 80's Silver Jubilee Symposium, I.I.T. Bombay, February 1983.

PATENTS:

- Tarunasri, a Former student (2008) has done her project work on enzyme Fields Effect Transfer (ENFET) for Estimation of Triglycerides using Magnetic Nano Particles at CCMB under Dr. Madhusudan Rao, Deputy Director and got a patent (H01R31/00).
- Model on "Syncope Detection Emergency Messaging", was selected for sponsorship of 15 lakhs from ICRISAT, designed by Mr. Arvind, Ms. Soundarya and Mr. M.Venkateswara Rao.
- Patent applied on "Syncope Detection Emergency Messaging", by Mr. Arvind, Ms. Soundarya and **Mr. M.Venkateswara Rao** (No: 1639/CHE/2009).

TECHNICAL REPORTS:

1. Co-authored some topics of the technical Report, "Diagnosis of Pulmonary disease through Signal Processing & Modeling of Human Lungs with Clinical Applications", report submitted to CSIR, govt. of India, New Delhi.
2. Co-authored the technical Report, "Hardware development and fabrication of a Microprocessor based device for early detection of airways obstruction diseases in men", report submitted to board of research in Nuclear in Nuclear Sciences, BARC, Trombay, Bombay.

RESEARCH PROJECTS:

1. Undertook and successfully completed the project “Development and Validation of a computer assisted Instructional Package for training script specific word reading skills in Indian Languages” sanctioned by Department of Science and Technology, Govt. of India, New Delhi, as co-investigator with Dr. D.Vasantha, Rs. 2.00 lakhs
2. Undertook and successfully completed the project: “Development of a diagnostic technique for the Early detection of certain Neurological Disorders”, sanctioned by AICTE, New Delhi, as Principal Investigation, Rs. 3.00 lakhs.

PROJECTS GUIDED:

1. Microprocessor based ECG analyzer.
2. Speed control of 3-phase induction motor using hysteresis method.
3. Microcontroller based speed control of 3-phase induction motor using Sine-PWM.
4. Bone growth stimulators.
5. Premature baby incubators.
6. Muscle/nerve stimulators and many more.

PERSONNEL PROFILE:

Name : M.Venkateswara Rao
Date of Birth : 10-04-1959
Father's name : M.Mallikarjuna Rao
Address for Correspondence : M.Venkateswara Rao
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Place :
Date :

(M.Venkateswara Rao)