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DABBUSUMAN

Career Objective:

To secure a challenging full-time position for applying my technical, communication, and teamwork skills effectively to become a good engineer in the field of Biomedical Engineering to improve the organization while fostering both my personal and professional growth.

Education

PhD in Biomedical Engineering (2013-...)

University College of Engineering
Osmania University, Hyderabad 500007

Pursuing

M. E. in Biomedical Engineering (2009-11)

University College of Engineering
Osmania University, Hyderabad 500007.

First Division with distinction

B. E. in Biomedical Engineering (2001-5)

University College of Engineering
Osmania University, Hyderabad 500007.

First Division

Professional Experience:

1. I have been working as an Assistant Professor in the Department of Biomedical Engineering, University College of Engineering, Osmania University, Hyderabad, since June 11th of 2007. I have strong reasons to believe that I possess the temperament for teaching, research, and a good power of speech and a thorough and extensive knowledge of my field traits required for a successful career. This experience developed and honed my skills of organizing and communicating my thoughts in front of a responsive and critical audience.
2. I am acting as the Assistant Director, for the Bio-Medical Instrumentation Director, (BMIC) which caters to the calibration, testing, and Quality Assurance of the medical equipment of the hospitals. I am involved in the design and development of the calibration protocols of various medical equipment, and prepared the guidelines for calibration reports for different medical equipment.
3. I have served as the Head, Department of BME, University College of Engineering (A), Osmania University, Hyderabad, since, Feb-2013-2015.

Achievements:

- Secured 1st rank in the All India level DIPP competitive examination conducted by CSIR and DIPP (Department of Industrial Policy and Promotion, Govt.of India) and selected as an “**Examiner of Patent and Design**” during January 2011 at Indian Patent Office.
- Organized a National workshop on “Convergence of Nano-Bio-Info-Cogno for Biomedical innovations” which was inaugurated by **Bharat Ratna, His Excellency, Dr.APJ.Abdul Kalam, Former President of India**, on 1st, August, 2014, at Department of Biomedical Engineering, University College of Engineering(A), Osmania University, Hyderabad, Telangana State.

Best Paper Awards:

- ❖ D. Suman, M. Malini and S. Anchuri, "EOG based vigilance monitoring system," *2015 Annual IEEE India Conference (INDICON)*, New Delhi, 2015, pp.1-6.doi: 10.1109/INDICON.2015.7443210.
- ❖ D.Suman, M.Venkateswara Rao, Nithish J “Design of RF Source Generator for Hyperthermia Treatment of Cancer by Using Nanoparticles” at an International Conference on Nanomaterials and Biosensors-2 (ICNB-2) organized by INTERNATIONAL ACCREDITATION COUNCIL OF QUALITY EDUCATION AND RESEARCH (IACQER) at Raghu Engineering College, Vishakapatnam, during 28-29th Dec, 2011.

Skills/Expertise

Languages	C, C++ and Embedded C.
Operating Systems	Windows 98/2000, MS-DOS.MS-office, MS-excel
Packages	Mat Lab, Lab view, Multisim, Proteus, Internet Of Things(IOT), Big Data Analytics.

Research and Development Projects

S.no	Project title	Project worth in Rs	Funding Agency	Duration
1.	A Holistic approach of yoga for the treatment of Yoga and Hypertension- A clinical investigation on the autonomic control system	4.0 Lakhs	DST-PURSE	2017-20
2	A fuzzy expert system for the detection of drowsiness from the EOG signal analysis	5.0 lakhs	UGC-MRP	2016-18
3	Mitigation of drowsiness from the blink characteristics of EOG signal	1.0 Lakhs	Seed grant of TEQIP-II, Govt.of India	2015-16
4	Design and development of OT table control board and remote	0.40 lakhs	Consultancy for THUMBAY hospitals, Hyderabad.	Dec, 2017
5	Calibration of medical equipment	0.90 lakhs	Consultancy for THUMBAY hospitals, Hyderabad.	Feb, 2017
6	Calibration of medical equipment	0.45 lakhs	Consultancy for RISE Hospitals, Hyderabad.	Feb, 2018

Guided projects	Projects Titles
B.E/M.E Projects	Statistical removal of Ocular artifacts of EEG by using Stationary wavelet Transform
	Synthesis and Characterization of Nickel-Ferrite particles for medical applications
	Dicrotic Notch Detection and Analysis of Arterial Pulse by using Discrete Wavelet transform
	Microcontroller based Heart rate Variability analysis during different breathing patterns
	Spectral analysis of ECG and Respiration to yield the interdependencies of the cardiac and respiratory systems
	ocular artifacts removal from the EEG by using Independent Component Analysis

International Journals:

- ❖ Banibrata Mukherjee Vineeth Muppalla, N Sri Sai Krishna Suraj, D.Suman, "*Implementation of an Arrhythmia Detection Scheme with Cellular Based Alert Framework*" , 2017 IEEE Calcutta Conference (CALCON), 438-442, IEEE Xplore
- ❖ Suman, D., Malini, M. and V.Y.S.Reddy, '*ANN based Joint Time and frequency analysis of EEG for detection of driver drowsiness*' *Defence Life Science Journal*, Vol 2. No.4, 2017.
- ❖ Suman, D., Malini, M. And Ramreddy, B. (2017) 'Joint time–frequency analysis of EEG for the drowsiness detection: a study of cognitive behavioural patterns of the brain', *Int. J. Vehicle Safety*, Vol. 9, No. 3, pp.262–277.
- ❖ Vamsi R., Suman D., CH N., Malini M. (2017) Discrete Wavelet Transform based statistical features for the Drowsiness detection from EEG. In: Goh J., Lim C., Leo H. (eds) *The 17th International Conference on Biomedical Engineering. IFMBE Proceedings*, vol 61. Springer, Singapore
- ❖ D.Suman, Dr.M.Malini, Mr.Reddy Vamsi, Mr.Nikhil Ch, "Smart Goggles for the Drowsiness detection to avoid the Vehicle accidents" *Journal of the Instrument Society of India*, ISSN 0970-9983, Vol.46, No.3, Sept, 2016.
- ❖ V. Y. S. Reddy, P. S. Akanksha, D. Suman and M. Mudigonda, "Discrete Wavelet Transform based statistical features for the diagnosis of epilepsy," *2015 Annual IEEE India Conference (INDICON)*, New Delhi, 2015, pp. 1-6.doi:10.1109/INDICON.2015.7443494
- ❖ D. Suman, M. Malini and S. Anchuri, "EOG based vigilance monitoring system," *2015 Annual IEEE India Conference (INDICON)*, New Delhi, 2015, pp. 1-6. doi: 10.1109/INDICON.2015.7443210
- ❖ D.Suman, Dr.M.Malini and M.VenkateswaraRao "*Design and development of a comprehensive Driver Drowsiness detection and Alerting System*" *International Journal on Advances in Science & Technology*, Science Publications, ISSN 2348-5426, pp No 61-67, 2014.

- ❖ D.Suman, Dr.M.Malini and M.VenkateswaraRao “ A GUI based tumour detection technique from the MRI in view of the pre treatment planning of cancer surgery” International Journal on Advances in Science & Technology, Science Publications, ISSN 2348-5426, pp No 57-60, 2014.
- ❖ D.Suman, B.Guru prakash, M.Venkateswara Rao, “Effect of ancient techniques of yoga on physiological parameters of the patients suffering from asthma and hypertension” International Journal of Engineering Science & Advanced Technology (IJESAT) ISSN: 2250–3676, VOLUME-2, ISSUE-4, 846 – 850.

International/National Conferences

- ❖ Dr.M.Malini, D.Suman and M.VenkateswaraRao “*Design and development of an IR-based Drowsiness detection and Alerting System*” International Conference on Advances in Information and Computer Sciences (ICICS-2014), Zurich, Switzerland, International Science Index Vol. 8 No. 7, pp.1821-1825, July 30-31, 2014.
- ❖ D.Suman, Dr.M.Malini and M.VenkateswaraRao “*Design and development of a comprehensive Driver Drowsiness detection and Alerting System*” International Conference on Advances in Science & Technology, Science Publications Pvt. Ltd., Pattaya, Thailand, February 15-16, 2014.
- ❖ D.Suman, Dr.M.Malini and M.VenkateswaraRao “ A GUI based tumour detection technique from the MRI in view of the pre treatment planning of cancer surgery” International Conference on Advances in Science & Technology, Science Publications Pvt. Ltd., Pattaya, Thailand, February 15-16, 2014.
- ❖ “Design of RF Source Generator for Hyperthermia Treatment of Cancer by Using Nanoparticles” at an International Conference on Nanomaterials and Biosensors-2 (ICNB-2) organized by INTERNATIONAL ACCREDITATION COUNCIL OF QUALITY EDUCATION AND RESEARCH (IACQER) at Raghu Engineering College, Vishakapatnam, during 28-29th Dec, 2011.
- ❖ “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.
- ❖ “ Dicrotic Notch detection and analysis by using Discrete 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.
- ❖ “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.
- ❖ “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 Visveswarayya University, Belgaum during, January 4 -7, 2011.

- ❖ “Non invasive diagnosis of arterial sclerosis by wavelet detection of Dicrotic notch” at National Symposium on Instrumentation-35 (NSI-35) organized by Instrumentation Society of India, IISC Bangalore and Visveswarayya University, Belgaum during, January 4 -7, 2011
- ❖ “Analysis of ECG and Pulse by using Discrete Wavelet Transform” in national “Control Instrumentation Conference” (CISCON-2010) held in MIT, Udipi, Bangalore during November 2010.
- ❖ “De noising of EEG by using Stationary Wavelet Transform” in national “Control Instrumentation Conference” (CISCON-2010) held in MIT, Udipi, Bangalore during November 2010.

Workshops/Conferences Organized

- Convener for the National workshop on “**BIOMEDICAL SIGNAL PROCESSING**” in the department of BME, UCE, OU during 2009.
- Co-convener for the national workshop on “**BIOMEDICAL INSTRUMENTATION**” in the department of BME, UCE, OU during 2008.
- Coordinator for the Hands on training program on MATLAB for Engineers during, 2013.

Key skills:

Hospital training and visits:

1. In Osmania general hospital (Hyderabad) about clinical and analytical instruments.
2. In Nizams institute of medical sciences (NIMS) about various medical imaging techniques.
3. In Durgabhai deshmukh hospital (Hyderabad) about various diathermy techniques and cardiology equipments.
4. In Gandhi hospital (Hyderabad) about nephrology equipments.

Personal Details	
Fathers Name	: D.Narshimha reddy
Date of Birth	: 25 th may 1983
Gender	: Male
Nationality	: Indian
Language proficiency	: English, Hindi and Telugu

Declaration: I hereby declare that the information furnished above is true to the best of my knowledge.

Date: 14/02/2018

Place: Hyderabad.

(D.SUMAN)