BIO-DATA

Name   : SUNIL R. HIREKHAN

Designation   : Associate Professor in Electronics

Experience   : 30 Year

Educational Qualifications   : M.E.(Electronics),
                                              Ph.D.

Title of Research Thesis   : Effect of Meditation on EEG

Research Areas   : Biomedical Signal Processing, Digital System Design

Research Project Completed : MODROBS (01)
                                              Modernization of EDC Lab (GCOE Amravati – 2003-06)

Member of Professional Bodies : ISTE(LM), IETE (Fellow), IEEE(Member)

Reviewer of IEEE Conference : International Conference on Industrial   Instrumentation and
                                                Control 2015 (ICIC 2015)

Countries Visited   : 1) Kulalumpur, Malaysia (Academic Workshop, 12-14 Dec.2013)
                                               2) Wuhan, China (International Conference, 08 -09 Dec. 2019)

Publications:
- National/International Journal Papers   : 14
- National /International Conference Papers   : 10

Consultancy/ Testing   i) Maintenance of Govt.VHF communication system
                                         ii) Third Party Audit of Robotics Labs at ZP Schools
                                         iii) Third Party Audit of Drones/CCTV Installations of Smart City

Conferences / Workshop Organized:
1) DSP and its Applications–GEOE Amravati 2007
2) NPIU Workshop : Improving Transition Rate of Students : GECA, 2013

Expert Lectures Presented:

1) "EEG and Meditation " ,at Dept. of Instrumentation Engg, SGGSIET, Nanded

2) "EEG Signal Processing " at Dept. of Electronics Engg. SGGSIET, Nanded

3) IETE Aurangabad Local Chapter : Lecture Series, "Science of Meditation"

Short Term Training Program / Conference / Workshop Participated : 18

Any other information:

Worked as TEQIP-II Coordinator at GEC, Aurangabad, during 01 Sept. 2012 to   31 Jan. 2016. The institute has been considered as a well-performing institute, and has been selected to participate in TEQIP-III phase.

Prof. S. R. Hirekhan : Publications
a) Journal :

S.N.	Author	Title of Research Paper	Journal	Vol.	No.	Year
1	D.V.Rojatkar, Dr.G.G. Sarate, Prof.SR. Hirekhan	Writer-Independent Off-Line Hand Drawn Arabic Numerals Recognition	Information Technology Foundation for Research ITFR Signal Processing Society ISSN: 21934-9955|	Volume 3,	No. 4	October 2009
2	M.P.Jaiswal, Prof.G.G.Sarate Prof.S.R. Hirekhan	Implementation of AES as a Reconfigurable Cryptographic Embedded System using Microblaze & Xilinx ISE	IJCSET	ISSN: 2231-0711	Vol. 1	Issue 2	March 2011
3	P.V.Shekdar, S.R. Hirekhan	Implementation of Wireless Smart Sensor Platform for Industrial Application	International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181	Vol. 1	Issue 3	May – 2012
4	G.S.Yadav Prof.K.D.Chinchkhede,Prof. S.R.Hirekhan	On the Implementation of FIR Filter with Various Windows for Enhancement of ECG signal	International journal of engineering science and technology ISSN : 0975-5462	volume 3		2011
5	G. S. Yadav, Prof. K.D.Chinchkhede, Prof.S.R.Hirekhan, D.R.Solanke	Study of R-peak recognition for heart rate variability	International Journal of Advanced Engineering Technology (IJAET) E-ISSN 0976-3945 IJAET	Vol.II	Issue II	April-June, 2011

6	Shashikant V. Lahade, S.R. Hirekhan, C.Y.Bedare	Design and Implementation of Digital Trigger Circuit for Converter	International Journal of Engineering Research &Technology (IJERT) ISSN: 2278-0181	Vol. 1	Issue 3,	May – 2012
7	Ajay P. Dhawale, Prof.S.R. Hirekhan	Real Time Image Processing for Biological Applications Through Morphological Operations using LabVIEW	International Journal of Engineering Research & Technology (IJERT) ISSN: 2278-0181	Vol. 3	Issue 5,	May – 2014 (Google scholar indexed)
8	Ranjeetkumar, Prof. S.R. Hirekhan	Design of 8-Bit Comparator Using 45nm CMOS Technology	International Journal of Modern Engineering Research	Vol.4	Issue 6	June 2014
9	S. R. Hirekhan	The Solar Power for UPS Scheme	IOSR Journal of Engineering (IOSRJEN)	Vol.6	Issue 11	Nov. 2016
10	S. R. Hirekhan, Dr. R.R. Manthalkar	The Detrended Fluctuation Analysis of EEG Signals : A Meditation-based Study	Computing, Communication and Signal Processing, Advances in Intelligent System and Computing Springer nature Pub., Singapore	Vol. 810	ISSN 2194 5365 (doi.org/10/1007978-981-13-1513-8)	Jan. 2018 (Google scholar indexed)
11	S. R. Hirekhan, Dr. R.R. Manthalkar	The Detrended Fluctuation and Cross-Correlation Analysis of EEG Signals	Int.J Intelligent System design and Computing, Inderscience Publishers	Vol. 2	No. 2	Dec. 2018
12	Khan Ibtehaj Ali Minhaj Ali, Dr. S.R. Hirekhan	Fire Fighting Robot using Bluetooth with Wireless Camera	International Journal of Engineering Research & Applications (IJERA)	Vol.2	Issue 1, ISSN: 2248-9622	January 2021
13	Rajnandini Bhingare, Dr.Sunil Hirekhan	A survey on Deepfakes Creation and Detection	International Research Journal of Engineering and Technology (IRJET)	Vol.9	Issue 6, ISSN : 2395 0056	June 2022
14	Prerna V. Katke, Dr.S.R. Hirekhan	IOT Based Pollution Monitoring and GSM Notification System	International Journal of Scientific Research in Engineering and Management (IJSREM)	Vol.7	Issue 5, ISSN : 2582 3930	May 2023

b) Conferences :

S.No.	Author	Title of Research Paper	Conference Name	Place/Venue	Year
1	S.R.Hirekhan, Dr.T.R.Sontakke, Dr.S.N.Talbar	Implementation of transputer-based new communication primitives in concurrent-C	International Workshop on Telematics	NERIST, Nirjuli, Itanagar (AP)	14-15 May, 1995
2	V.G.Asutkar, S.R. Hirekhan	Solar Based UPS	National Conference on 'Un-conventional Energy',	Anna University, Chennai	Dec. 1997
3	Prof.Sunil	Common Bus Controller	IETE Convention	Vadodara, Gujrat	Feb. 2004

					Hirekhan	
4	Rahul Kolhe, Prof.Sunil Hirekhan	Real Time Mercurial Patent Health Monitoring System Based on Android	National Conference on Modeling,Optimization and Control (NCMOC-2015)	VIT, Pune	04-06 March, 2015
5	Saurabh Pandit, Prof.Sunil Hirekhan	Fuzzy Logic Based Induction Motor Speed Control	National Conference on Modeling, Optimization and Control (NCMOC-2015)	VIT, Pune	04-06 March, 2015
6	Shashikant V.Lahade, Prof.S.R. Hirekhan,	Intelligent and Adaptive Traffic Light Controller(IA-TLC) using FPGA	(IEEE) International Conference on Industrial Instrumentation and Control (ICIC-2015)	COEP, Pune	28-30 May, 2015 (Scopus indexed))
7	Shubhangi P. Bhat, Prof. Sunil R, Hirekhan	Canal Automation Using LabVIEW	(IEEE) International Conference on Smart Technologies and Management for Computing, Communications, Control,Energy and Materials(ICSTM)	Vel Tech Rangrajan Institute of Science and Technology, Chennai	06-08 May,2015 (Scopus indexed)
8	Shubhangi P. Bhat, Prof. Sunil R, Hirekhan	Automation of Water Discharge Process at Canals	2nd International Conference(IEEE) on Applied and Theoretical Computing and Communication Technology	Bapuji Institute of Engineering and Technology, Bengaluru	29-31 Oct. 2015 (Scopus indexed)
9	S. R. Hirekhan, Dr. R.R. Manthalkar	LRTC Analysis of Meditation EEG Signals	2019 Sino-US International Conference on Health Sciences and Medical Education	SMSSI, Wuhan China	08-09 Dec. 2019 (SCI indexed)
10	Shruti S. Phutke, Sunil Hirekhan, Prof. Ramchandra Manthalkar	"Meditation: The Science for Better Living"	In proc of 5th Bhartiya Vigyan Sammelan	Fergusson College, Pune	May-2017

1) Short –term Courses/Trainings attended :

S.No.	Course Title	Dates	Organizing Institute	Duration (Weeks)
1	Digital Signal Processing	16-27 March, 1998	SGGS Institute of Engg.& Tech. Nanded	Two-week
2	Digital Signal Processing and Its Applications	19 – 24 June, 2006	(CE & QIP, IIT Bombay) College of Engineering, Pune	One-week
3	Introduction to MATLAB, Simulink and its Tool Boxes	29April-04 May, 2008	Govt. College of Engineering, Amravati	One-week
4	Advances in Signal Processing and Soft Computing	18- 22 May, 2009	SGGS Institute of Engg.& Tech. Nanded	One-week
5	Library Automation Package and Discovery Tool	29 Nov-03 Dec. 2010	NCSI, Indian Institute of Science, Bangalore	One-week
6	Embedded Linux	04-08 Febru. 2013	College of Engineering, Pune	One-week
7	System Design using FPGA	24- 28 June, 2013	Govt. College of Engineering, Aurangabad	One-week
8	Effective Administration	15-16 Feb. 2014	Govt. College of Engineering, Aurangabad	Two-days workshop
9	Career Assessment, Coaching and Counselling	18 -20 June, 2014	Shri Siddharth Institute of Technology, Tumkur, Bangalore	Three-day workshop
10	Multi-rate Signal Processing and Wavelets	29 June-10 July, 2015	SGGS Institute of Engg.& Tech. Nanded	Two-week
11	Refresher Training for Officers: Higher and Tech. Education,	26 -30 Oct. 2015	YASHADA, Pune	One-week
12	Advances in Digital Signal Processing	03 -04 Dec. 2015	Govt. College of Engineering, Aurangabad	Two-days Workshop
13	Outcome-Based Education	09 -10 Jan. 2016	(BMSCE,IUCEE, INPODS),DYPatil IET, Pimpari, Pune	Two-days Workshop
14	MATLAB in Research and Data Analytics	02 – 07 May, 2016	SGGS Institute of Engg.& Tech. Nanded	One-week
15	Brain Rhythms : Understanding, Measurement, Analysis and Applications	13 -24 June, 2016	Indian Institute of Technology, Kharagpur	Two-week
16	Embedded Skill Development Program	03 – 05 June, 2020	EdGate Technologies Pvt Ltd	Three-days
17	Current Trends in Biomedical Signal and Image Processing	20 – 22 Oct. 2020	Indian Institute of Technology, Indore	Three-days
18	Regional Research Symposium on PBL	18 -19 June 2021	Alborg University, Denmark (online)	Two-days