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Program

S0: OPENING CEREMONY

S1: KEYNOTE ADDRESS - I

Nano structured MOX for high selective multiparametric gas sensors

Metal oxide in forms of nanowires are interesting for their peculiar morphology and their exceptional crystalline features. The first assuring a high surface to volume ratio necessary to maximize surface related properties such as the ones governing chemical sensing transduction principles. The latter guaranteeing stable crystalline and therefore electrical properties over long term operation, i.e. a required quality for an industrial application of any kind of sensor in real environments.

Furthermore other peculiarities make them much more interesting than their thin or thick film counterpart, for example lateral dimensions comparable to the surface charge region, the possible modulation of the operating temperature to select the proper surface reactions, the self heated device option, catalyst can be deposited over the surface to enhance or reduce specific reactions and moreover their potential integration in field-effect transistors configuration to add a gate potential for a further opportunity to change sensitivity and selectivity.

After the first method proposed for the preparation of metal oxide in forms of nanobelts [Science, 2001 291,1947] plenty of literature was devoted to different experimental techniques that may lead to the formation of these quasi one dimensional structures. At the beginning the research was focusing of the vapour phase methods that were producing, with cheap instrumentation, high quality nanostructures in terms of crystallinity and stoichiometry.

We have thoroughly studied the deposition using evaporation and condensation from powder in controlled environment using different experimental set up. Tin oxide was preferred with respect to other oxides thanks to its well known chemical sensing properties and to the easy preparation condition, but also copper and zinc oxide were studied.

Metal oxide nanowires were integrated in functional devices for chemical sensing and then tested towards a wide range of chemicals, including odorous molecules such as ammonia, hydrogen sulfide. To further gain selectivity, innovative gas-sensor architectures, based on surface ionization mechanism and magnetic field activation, have been investigated and will be presented.

S2A: SMART SENSORS AND SENSING SYSTEMS

Architectures for Modular Smart Sensor Systems

Mario Ribeiro (Instituto Superior Tecnico, Portugal); Octavian Adrian Postolache (Instituto de Telecomunicações, Lisboa/IT & Instituto Universitario de Lisboa, ISCTE-IUL, Portugal); Pedro M. B. Silva Girão (Instituto Superior Técnico, Portugal)

pp. 1-7

A Smart Transport Application of Cyber-Physical Systems: Road Surface Monitoring with mobile devices

Bilal Syed (Tata Consultancy Services Ltd., India); Krishnan Srinivasarengan (Tata Consultancy Services Ltd., India); Arpan Pal (Tata Consultancy Services, India); P. Balamuralidhar (Tata Consultancy Services, India)

Presenter bio: Arpan Pal received both B.Tech. in Electronics and Electrical Communication Engineering and M.Tech degree in Telecommunication Systems Engineering from Indian Institute of Technology, Kharagpur, India in 1990 and 1993 respectively. He has more than 17 years of experience in the area of Signal Processing., Communication and Real-time Embedded Systems. Till 1997, he was with Research Center Imarat (RCI), a lab under DRDO working in the area of Missile Seeker Signal Processing. From 1997 to 2002, he was leading the Real-time systems group in Rebaca Technologies (erstwhile Macmet Interactive Technologies) working in the area of Digital TV and Set top Boxes. Since 2002, he is with Tata Consultancy Services, Kolkata, where he had lead the Digital Signal Processing Group earlier and currently is the Research Group Manager for the TCS Innovation Lab, Kolkata under the theme of Ubiquitous Computing. His main responsibility is in conceptualising and architecting assets, solutions and product offerings in the area of Ubiquitous Devices. His area of interests includes Access Devices, Protocols for Interoperability and Adaptability, Cross-layer Security and Privacy, Video Context Analytics and Value-added Internet-enabled Ubiquitous Applications for Masses. He has more than 20 publications till date in reputed Journals and Conferences. He has also filed for several patents.

pp. 8-12

Class D RF Amplifier for 20 MHz NMR MOUSE Sensor

Robin Dykstra (Victoria University of Wellington, New Zealand); John Zhen (Victoria University of Wellington, New Zealand)

pp. 13-16

A Combined Electrostatic-Triboelectric Vibration Energy Harvester

Jerin Francis (Indian Institute of Technology Madras, India); Chandrika Sreekantan Anoop (Indian Institute of Technology Madras, India); Boby George (Indian Institute of Technology Madras, India); Bharath Bhikkaji (Indian Institute of Technology Madras, India)

Presenter bio: Boby George was born in Kannur, India, in 1977. He received the M.Tech. and Ph.D. degrees in electrical engineering from the Indian Institute of Technology (IIT) Madras, Chennai, India, in 2003 and 2007,respectively. He was a Postdoctoral Fellow with the Institute of Electrical Measurement and Measurement Signal Processing, Graz University of Technology, Graz, Austria from 2007 to 2010. He is currently an Assistant Professor in the Department of Electrical Engineering, IIT Madras. His areas of interests include measurements, electronic instrumentation and sensors.

S2B: SPECIAL SESSION ON SENSOR APPLICATIONS IN AGRICULTURE AND BIOLOGY

S2C: IMAGE, VISION AND RANGE SENSORS

S3A: MAGNETIC SENSORS

S3B: GAS SENSORS - I

S3C: SPECIAL SESSION ON COGNITIVE SENSOR NETWORKS FOR UBIQUITOUS HEALTHCARE SERVICES

S4A: SENSORS FOR NOVEL APPLICATIONS - I

Application of Sensors in Augmented Reality based Interactive Learning Environments
Chitrapu Ramdas (CDAC, Knowledge park, Bangalore, India)
pp. 173-178

A Novel Comprehensive Sensor Model for Cyber Physical System
Dhiman Chattopadhyay (Tata Consultancy Services, India); Ranjan Dasgupta (Tata Consultancy Services Ltd, India)

Presenter bio: Ranjan Dasgupta received B.E in Electronics and Communication from Bangalore University in 1996. Since 1996 he has been working with various embedded system design, its hardware and software implementation in the area of control, medical and wireless applications at consumer, healthcare and telecommunication industry verticals starting with Philips India Ltd., Philips Medical Systems, Philips Telecommunications. Starting his carrier as Graduate Engineer Trainee, he played multiple roles as Software Development Engineer, Sr. Software Development Engineer, and Asst Manager - Development & Production support in Philips. Presently he is employed by TCS and working as a Program Manager ? Embedded System Design for last three years. His area of interests includes embedded hardware and software (Efficient C/C++ and Assembly Programming Technique & its Optimization, RTOS and Embedded OS selection, its build mechanism, application development framework) design using different embedded processors, DSPs in control area of multimedia and wireless applications. Presently he is also developing a wireless sensor network (WSN) with heterogeneous embedded processors using available commercial RTOS over which a generic middle layer will be deployed to work as an interface b/w sensor h/w, their networks and application framework. With his twelve years of hands-on embedded system design & development expertise, he has also contributed in IEEE conference papers,journal papers,technical documents, company internal white papers. He used to be a speaker in several national and international (IEEE International Conference on Avoinics Systems, International Conference on Modeling and Simulation, MS'07 etc) conferences.

pp. 179-183

A Smart Sensing System to Analyze Piping Vibrations in Industrial Installations
Jose Costa Pereira (ESTSetúbal, Portugal); Octavian Adrian Postolache (Instituto de Telecomunicações, Lisboa/IT & Instituto Universitario de Lisboa, ISCTE-IUL, Portugal); Pedro Girão (Institute of Telecommunications (IT), Portugal)
pp. 184-188

S4B: SPECIAL SESSION ON BIOLOGICALLY INSPIRED VISION SENSORS FOR MACHINE VISION APPLICATIONS

Control of a Boom Crane Using Installed Stereo Vision
Yasuo Yoshida (Chubu University, Japan); Takahiro Inukai (Chubu University, Japan)
pp. 189-194

An Automated Machine Vision Based System for Fruit Sorting and Grading
Chandra Nandi (The University of Burdwan, India); Bipan Tudu (Jadavpur University, India); Chiranjib Koley (National Institute of Technology, India)
pp. 195-200

Performance Evaluation of a Vision Sensor in 3D Virtual Environment for Rendezvous and Docking Application
J Gladwin (Vikram Sarabhai Space Center & ISRO, India); Umamaheswaran R (VSSC/ ISRO, India); Sivan K (VSSC/ ISRO, India); Mathias P C (IISc, Bangalore, India)
pp. 201-206

Bio-inspired Object Classification using Polarization Imaging
Aroma Mahendru (Indian Institute of Technology (BHU), Varanasi, India); Mukul Sarkar (Indian Institute of Technology, Delhi, India)
pp. 207-212

Vision Sensing System For Early Detection Of Pebrine Spore In Silk Moth
Amitava Akuli (India & C-DAC, Kolkata, India); Abhra Pal (Engineer, India); Tamal Dey (Engineer, India); Shamshad Alam (Pradan, India); Pradeep Chopra (DEIT, India); Nabarun Bhattacharyya (Centre for Development of Advanced Computing, India)
pp. 213-218

S4C: SENSORS FOR DIELECTRIC MEASUREMENT

Characterization of Dielectric Resonator as a Passive Mechanical Sensing Element
Abhishek Ojha (University of Freiburg, Germany); Adnan Yousaf (University of Freiburg, Germany); Leonhard Reindl (IMTEK - Institute for Microsystem Technology, Germany)
pp. 219-225

An Electromagnetic Sensing Device for Microstructural Phase Determination of Steels through Non-Destructive Evaluation
Rajat Roy (NDE and Magnetic Materials Group, CSIR-National Metallurgical Laboratory, India); Ashis Panda (NDE and Magnetic Materials Group, CSIR-National Metallurgical Laboratory, India); Amitava Mitra (NDE and Magnetic Materials Group, CSIR-National Metallurgical Laboratory, India)
pp. 226-229

Timber Tomography Using Time Domain Reflectometry First Results
Ian G Platt (Lincoln Ventures Ltd, New Zealand); Andy Hayward (Lincoln Venture, New Zealand); Ian M Woodhead (Lincoln, New Zealand); Michael Hagedorn (LVL, New Zealand)
pp. 230-233

Investigation of cross sensitivity of single and double electrode of admittance type level measurement
Joyanta Roy (Narula Institute of Technology, India); Bansari Deb (Narula Institute of Technology, India)
pp. 234-237

Dielectric Resonator Antenna as a RFID Tag for Human Identification System in Wrist Watch
Gautam D. Makwana (Dhirubhai Amabani Institute of Information and Communication Technology, Gandhinagar & Sankalchand Patel College of Engineering, Visnagar, India)
pp. 238-242

Investigating Water Holding Capacity (WHC) of Meat Using Microwave Spectroscopy
Jung Hean Goh (Liverpool John Moores University, United Kingdom); Olga Korostynska (Liverpool John Moores University, United Kingdom); Alex Mason (Liverpool John Moores University, United Kingdom); Ahmed I Al-Shamma'a (Liverpool John Moores University, United Kingdom)
pp. 243-247

S5: KEYNOTE #2

S6A: TEMPERATURE AND HUMIDITY SENSORS

RFID Vapor Sensor: Beyond Identification
Shankar Nawale (Veermata JIjabai Technological Institute, Mumbai, MH & Sinhgad Institute of Technology Lonavala, University of Pune, Pune, MH, India); Nisha Sarwade (Veermata JIjabai Technological Institute, Mumbai, MH, India)

Presenter bio: Shankar Nawale was born on September 25, 1977, in Shirur, Pune, India. He received B.E. degree in Electronics and Telecommunication from Dr. BAMU, MH, India and M. Tech. in Electronics and Telecommunication from VJTI, University of Mumbai, India in 2000 and 2008 respectively. He has been a lecturer at Bharati Vidyapeeth's College of Engineering, Navi Mumbai, from September 2001 to June 2007. Currently, he is working as an Assistant Professor in the Department of Electronics and Telecommunication at Sinhgad Institute of Technology, Lonavala, Pune, since July 2007. Where he currently teaches Electromagnetics, Wave Theory, Antennas and Microwave Engineering. He is the best participant award winner at IIT, Kharagpur, for his active participation in two weeks AICTE approved Training program on RF and Microwave Engineering, held in December 2009. His research is mainly in the area of Microwave passive devices and Smart Antennas. He has been selected for doing research at University of Rome, Tor Vergata, Italy, under the Erasmus Mundus External Cooperative Window, a Scholarship based program named as Mobility for life by European Commission, from September 2010 to February 2011. Shankar Nawale is currently doing his Ph.D. at Veermata Jijabai Technological Institute, Mumbai, India, since January 2009.

pp. 248-253

S6B: SPECIAL SESSION ON DEVICES AND CIRCUITS FOR SEMICONDUCTOR MAGNETIC FIELD SENSORS

S6C: OPTICAL AND FIBRE OPTIC SENSORS

Optical Sensitization for Laser-induced Breakdown Spectroscopy using Argon Nanobubbles
Satoshi Ikezawa (Waseda University, Japan)
pp. 315-319

S7: COMBINED LUNCH AND POSTER SESSION - I

Review of Image Processing Techniques for Automatic Detection of Eye Diseases
ManjulaSri Rayudu (VNR Vignana Jtothi Institute of Engineering and Technology, India); Vaibhav Jain (BITS-PILANI, Hyderabad, India); MM. Rao Kunda (BITS-PILANI, Hyderabad, India)
pp. 320-325

Monitoring of mango (Mangifera indica L.) (Cv.: Chousa) ripening using X-ray computed tomography
Nachiket Kotwaliwale (Central Institute of Agricultural Engineering & Indian Council of Agricultural Research, India); Karan Singh (Central Institute of Agricultural Engineering & Indian Council of Agricultural Research, India); Abhimannyu Kalne (Central Institute of Agricultural Engineering, Nabibagh, Berasia Road, Bhopal, India)
pp. 326-330

Operation of BLAC Motor Using PM Enhanced Sensing of Internal EMF Variation
Rakesh Kumar Srivastava (Indian Institute of Technology Banaras Hindu University, India); Santosh Kumar Singh (Indian Institute of Technology Banaras Hindu University, India); Ankita Dwivedi (Indian Institute of Technology Banaras Hindu University, India); Srikanth Gollapudi (Mangalaytan University, Aligarh, India)

Presenter bio: I am working as a Professor in Electrical Engineering, I.I.T. (B.H.U.), Varanasi (INDIA) I am working in Electrical Machines, Linear Induction Motors, Eddy Current Brakes, Electromagnetic devices,BLDC motor, Finite Element Method/software ANSYS 11.0, Fourier transform applicable to electrical machines.

pp. 336-340

Optimization of Sensor Array in Electronic Nose by Combinational Feature Selection Method
Pradip Saha (Jadavpur University, India); Santanu Ghorai (Heritage Institute of Technology, Kolkata, India); Bipan Tudu (Jadavpur University, India); Rajib Bandyopadhyay (Jadavpur University, India); Nabarun Bhattacharyya (Centre for Development of Advanced Computing, India)
pp. 341-346

Single Hop Sensor Deployment Algorithm
Arup Chattopadhyay (Academy of Technology, West Bengal University of Technology, India); Chandan Kumar Bhattacharyya (Techno India, India); Swapan Bhattacharya (Jadavpur University, India)
pp. 347-352

Coverage and Connectivity in Wireless Sensor Networks:Their trade-offs
Sonali Sen Baidya (Techno India, India); Chandan Kumar Bhattacharyya (Techno India, India)
pp. 353-358

Position control of shape memory alloy actuated gripper
Krishna Sunka (National Institute of Technology, India); Dhanalakshmi Kaliaperumal (National Institute of Technology Tiruchirappalli & National Institute of Technology Tiruchirappalli, India)
pp. 359-364

Chemical Synthesis of Polycarbazole (PCz), modification and pH Sensor Application
Bhavana Gupta (NIIST CSIR, India); Rajiv Prakash (Indian Institute of Technology, Banaras Hindu University, India); Ambrose Melvin (Tata Institute of Fundamental Research, India)
pp. 365-369

Development and Evaluation of an Experimental Machine for Variable Rate Application of Granular Fertilizers
Manjeet Singh (Punjab Agricultural University, India)
pp. 370-373

Cloud Computing for Internet of Things & Sensing Based Applications
Prahlada Rao B. B. (Centre for Development of Advanced Computing, India); Payal Saluja (CDAC, India); Neetu Sharma (CDAC, India); Ankit Mittal (CDAC, India); Shivay Sharma (CDAC, India)
pp. 374-380

S8A: ELECTRONIC NOSE

S8B: WIRELESS SENSOR NETWORKS - I

Hyderabad, AP, INDIA. She is employed with Vignan Institute of Technology and Science, Nalgonda District, AP, INDIA as Associate professor. Previously she was employed as associate professor with VNR Vignana Jyothi Institute of Engineering and Technology. She had achieved National merit scholar ship and one gold medal. She is currently contributing her research for the project which is funded by Department of science and Technology. She has got 2 IEEE conference papers, 1 international conference paper, 3 international journal paper to her credit. Phone number: 9705637494, email: narmada.alaparthi@gmail.com Second Author Dr P. Sudhakara Rao Completed Ph.D., Information and Communication Engineering from Anna University, India, Masters in Electronics and Communication Engineering from Anna University, India, Bachelors in Electronics and Communication Engineering from Mysore University, India. Worked as deputy Director, "Central Electronics Engineering Research Institute center, India" for over 25 years, 2 years as Vice-president, "Sieger Spintech Equipments Ltd., India", established an electronic department for the development of electronic systems for nearly 2 years. Presently working with Vignan Institute of Technology and Science, Nalgonda District, AP, INDIA as DEAN R&D, HOD ECE. He has one patent and 65 technical publications/ conference papers to his credit. Conducted many international and national conferences as chairman.Phone number: 9951110282, email: sparvata@gmail.com

Low Power Wake-up Signalling in Wireless Network

Chandan Maity (Centre for Development of Advanced Computing, India); Ashutosh Gupta (Centre for Development of Advanced Computing, India); Sanjat Panigrahi (Centre for Development of Advanced Computing, India); Chaitanya Garg (Centre for Development of Advanced Computing, India)

Presenter bio: Ashutosh Gupta holds Bachelors in Electronics & Communication from Visveswaraiah Technological University, Belgaum, India and Post-Graduation in Telecommunication Network Planning and Management from Indian Institute of Technology, Kharagpur (IIT – Kgp). As a part of work integrated program of BITS Pilani and Department of Information Technology, Government of India he has completed M.S. (Masters of Science) in Quality Management. Presently he is working as Technical Officer in Embedded Systems group at C-DAC, prior to this he was with Wipro Technologies as Senior Project Engineer. His interest covers the areas of RFID, Sensor networks and HVAC systems. He has several national and International publication and Patent in Embedded domain to his credit.

Smart Power Monitoring System Using Wireless Sensor Networks

Satinder Gill (Massey University, New Zealand); Nagender Suryadevara (Massey University, New Zealand); Subhas Mukhopadhyay (Massey University, New Zealand)

S8C: MECHANICAL SENSORS

A Hall Effect Sensor based Syringe Injection Rate Detector

Biswarup Mukherjee (Indian Institute of Technology, Madras, India); Boby George (Indian Institute of Technology Madras, India); Mohanasankar Sivaprakasam (IIT Madras, India)

A New Variable Reluctance - Hall Effect based Angle Sensor

Chandrika Sreekantan Anoop (Indian Institute of Technology Madras, India); Boby George (Indian Institute of Technology Madras, India)

Simultaneous twist angle and direction sensing using abrupt-tapered fiber Mach-Zehnder interferometers

Gia-Ling Cheng (Department of Electro-Optical Engineering, National United University, Taiwan); Jheng-Jyun Wang (National United University of Taiwan, Taiwan); Zhi-Zheng Feng (Department of Electro-Optical Engineering, National United University, Taiwan); Nan-Kuang Chen (National United University, Taiwan)

An Investigation into the Potential of Microwave NDT for Structural Materials

Badr M Abdullah (Liverpool John Moores University, United Kingdom); Jeff Cullen (Liverpool John Moores University, United Kingdom); Alex Mason (Liverpool John Moores University, United Kingdom); Ahmed I Al-Shamma'a (Liverpool John Moores University, United Kingdom); Christoper Hawkins (Dstl, United Kingdom); Mark Saunders (Dstl, United Kingdom)

Optical Imaging Detector for Solar Corona Intensity Oscillations Study

Dhrupesh Shah (Space Applications Centre (SAC), ISRO, India); Arup Banerjee (Space Applications Centre, ISRO, India); Abhijit Chatterjee (ISRO, India)

S9A: SENSORS FOR NOVEL APPLICATIONS - II

S9B: THICK AND THIN FILM SENSORS

S9C: ULTRASONIC AND ACOUSTIC SENSORS

S10A: SENSORS FOR COMPOSITION ANALYSIS

S10B: CHEMICAL SENSORS

S10C: SECURITY AND SAFETY APPLICATIONS

S11A: SPECIAL SESSION ON SMART ENVIRONMENTAL MONITORING SYSTEMS

S11B: WIRELESS SENSOR NETWORKS - II

mKRISHI Wireless Sensor Network Platform for Precision Agriculture
Ajay Mittal (Research, India); Chethan P (TCS Innovation Labs Bangalore, India); Jayaraman Srinivasan (TCS Innovation Labs, Bangalore, TCS, India); Bhushan Gurmukhdas Jagyasi (TCS Innovation Labs Mumbai & Indian Institute of Technology Bombay, India); Arun Pande (TCS Innovation Labs Mumbai, India); P. Balamuralidhar (Tata Consultancy Services, India)
pp. 623-629

Energy Aware Self Powered Wireless Sensor Mote
Haribabu Pasupuleti, Mr. (Centre for Development of Advanced Computing, India); David Selvakumar (C-DAC BANGALORE, India)
pp. 630-636

Development of Embedded Wireless Network and Water Quality Measurement Systems for Aquaculture
Sai Krishna Vaddadi (CSIR-Central Electronics Engineering Research Institute, India)
pp. 637-641

Wireless Gas Sensor Network for Detection and Monitoring of Harmful Gases in Utility Areas and Industries
P Jain (Centre for Development of Advanced Computing, India); Rajesh Kushawah (Centre for Development of Advanced Computing, India)
pp. 642-646

Irrigation Control using Wireless Underground Sensor Networks
Vinod Parameswaran (University of Southern Queensland, Australia); Hong Zhou (University of Southern Queensland, Australia); Zhongwei Zhang (University of Southern Queensland, Australia)
pp. 653-659

Web based monitoring and Control of WSN using WINGZ(Wireless IP Network Gateway for Zigbee)
Kaushik Nanda (CDAC, Bangalore, India); Haribabu Pasupuleti, Mr. (Centre for Development of Advanced Computing, India); David Selvakumar (C-DAC BANGALORE, India); Kiran Nayak (Center for Development of Advanced Computing, India); Shrikrishna Chippalkatti (Centre for Development of Advanced Computing, India)
pp. 666-671

S11C: BIO AND BIOLOGICAL SENSORS

FIA-EQCN biosensor for analysis of sulphadiazine residues in milk
Geetesh Mishra (BITS, Pilani-KK Birla Goa Campus, India); Sunil Bhand (BITS, Pilani-KK Birla Goa Campus, India)

Presenter bio: Dr. Sunil Bhand is Ph.D. in Chemistry with 12 years of research experience in biosensors and bio-analytical techniques. He has worked as post-doctoral associate at Lund University Sweden and also collaborates with Linköping University Sweden on nano-biosensor devices. His current interest includes biochip & microfluidic devices for water analysis. He has over 25 international publications and co-inventor in 02 patent applications. He is also supervising 06 Ph.D. students.

pp. 672-676

2D-SPR biosensor detects the intracellular signal transduction in PC12 cells at single cell level
Tanveer Mir (University of Toyama & Graduate School of Innovative Life Sciences for Education, Japan)
pp. 677-681

Single cell measurement using the portable impedance analyzer
Sung-Lin Tsai (National Cheng Kung University, Taiwan)
pp. 682-687

Nanocrystalline Porous Silicon For Sensitive Toxin Detection
Hrilina Ghosh (Bengal Engineering and Science University Shibpur (BESUS), India); Chirosree RoyChaudhuri (B.E. College, India)
pp. 688-693

Utilisation of a Resonant Structure to Differentiate Lipomyces Yeast Cultures based upon Lipid Content

Richard Blakey (Liverpool John Moores University, United Kingdom); Alex Mason (Liverpool John Moores University, United Kingdom); Ahmed I Al-Shamma'a (Liverpool John Moores University, United Kingdom); Kerry A Rostron (UCLAN, United Kingdom); Carole Rolph (University of Central Lancashire, United Kingdom); Gary Bond (University of Central Lancashire, United Kingdom)

pp. 694-697

An easy-to-adopt approach for regular and routine monitoring of the consciousness level of human brain of stayed alone sick person

Surajit Bagchi (WBUT, India); Madhurima Chattopadhyay (West Bengal University of Technology & Heritage Institute of Technology, India)

pp. 698-703

S12: COMBINED LUNCH AND POSTER SESSION - II

Synthesis, Characterization and performance of Pure and Surface modified BaSnO3 with TiO2 thick film resistor as a gas sensor

Narendra Patil (K. P. G. Arts, Commerce and Science College, Igatpuri & Pune University, Pune, India); Vishwas Gaikwad, Jr (Pune University & College, India); Gotan H Jain (K. T. H. M. College, Nashik, India)

pp. 704-708

BEAMS: Battery Exhaustion Anomaly Monitoring System Model in SENSORNET

Tapalina Bhattasali (University of Science and Technology, India); Rituparna Chaki (West Bengal University of Technology, India)

pp. 709-713

Zirconia Oxygen Sensor for Aerospace Applications

Jk Radhakrishnan (Defence Bioengineering and Electromedical Laboratory & DRDO, India); Kamble Ss (Defence Bioengineering and Electromedical Laboratory, India); Krishnapur Pp (Defence Bioengineering and Electromedical Laboratory, India); Vc Padiki (Defence Bioengineering and Electromedical Laboratory, India); Gnanasekaran T (IGCAR, India)

pp. 714-717

Advanced Driver Assistance System

Sanket R. Borhade (Vishwakarma Institute of Technology, India); Manthan Shah (Vishwakarma Institute of Technology, India); Pravin Jadhav (Vishwakarma Institute of Technology, India); Digvijay Rajurkar (Vishwakarma Institute of Technology, India); Aniket Bhor (University of Pune & Vishwakarma Institute of Technology, India)

pp. 718-722

DGS based Microstrip Phase shifters

Pravin Patil (Mumbai University, India); Uday Khot (Mumbai University, India); Sheetal Bhujade (Mumbai University, India)

Presenter bio: i am sheetal bhujade. currently pursuing M.E (electronics and telecommunication) in VIT,wadala,mumbai uNder mumbai university.

pp. 723-728

Microcontroller-based Sensors and Instrumentation for Roll-to-Roll Application

Sung-Yu Tsai (Massey University, New Zealand); Noppharat Yoksen (National Tsing Hua University, Taiwan); Subhas Mukhopadhyay (Massey University, New Zealand); Jen-Yuan (James) Chang (National Tsing Hua University, Taiwan)

pp. 729-733

Electrical Characterization of Suspended HeLa Cells using ECIS based Biosensor

Debanjan Das (IIT Kharagpur, India); Farhan Ahmad Kamil (IIT Kharagpur, India); Karabi Biswas (I.I.T. Kharagpur, India); Soumen Das (IIT Kharagpur, India)

pp. 734-737

A New Approach for Sensitivity Improvement of MEMS Capacitive Accelerometer Using Electrostatic Actuation

Banibrata Mukherjee (IIT KHARAGPUR, India); K. B. Mruthyunjaya Swamy (IIT-Kharagpur, India); Siddhartha Sen (IIT Kharagpur, India)

S13A: ELECTRONIC TONGUE

S13B: SENSOR INTERFACING AND SIGNAL ANALYSIS

Comparative sensor analysis for an electronic wearable and non-invasive respiratory signal acquisition system

Paulo Lopez-Meyer (The University of Alabama, USA); Brian Cheung (Case Western Reserve University, USA); Edward Sazonov (The University of Alabama, USA)

Presenter bio: Edward Sazonov received the Diploma of Systems Engineer from Khabarovsk State University of Technology, Russia, in 1993 and the Ph.D. degree in Computer Engineering from West Virginia University, Morgantown, WV, in 2002. Currently he is an Associate Professor in the department of Electrical and Computer Engineering, the University of Alabama, Tuscaloosa, AL and the head of the Laboratory of Ambient and Wearable Systems. His research interests span bioengineering, computational intelligence, wireless, ambient and wearable sensors and devices. Current research projects include development of methods and wearable sensors for non-invasive monitoring of ingestion; methods and sensors for monitoring of physical activity and energy expenditure; wearable platforms for rehabilitation of stroke patients and monitoring of the risk of falling in elderly; and, self-powered ambient sensors for structural health monitoring. His work has been supported by national (National Science Foundation, National Institutes of Health, National Academies of Science) and state agencies, and private industry.

pp. 805-808

Ranking of Sensitive Positions Based on Statistical Parameters and Cross Correlation Analysis

Nishchal K Verma (Indian Institute of Technology Kanpur, India); Kumar Piyush (BIT Mesra, India); Rahul K. Sevakula (Indian Institute of Technology Kanpur, India); Sonal Dixit (Indian Institute of Technology Kanpur, India); Al Salour (The Boeing Company, USA)

pp. 815-821

S13C: GAS SENSORS - II

Development of Nanostructured ZnO based Gas Sensors to use in Electronic Nose for Biochemical Compounds in Black Tea

Samir Das (Jadavpur University & Jadavpur University, India); Sankhadeep Ghosh (Jadavpur University, India); Bipan Tudu (Jadavpur University, India); Nabarun Bhattacharyya (Centre for Development of Advanced Computing, India); Rajib Bandyopadhyay (Jadavpur University, India); Panchanan Pramanik (IIT Kharagpur, India)

pp. 822-826

Growth and Gas Sensing Properties of Self-Assembled Chain-Like ZnO Nanostructures

Vardan Galstyan (University of Brescia and CNR-IDASC, Italy); Elisabetta Comini (University of Brescia, Italy); Camilla Baratto (University of Brescia, Italy); Andrea Ponzoni (University of Brescia, Italy); Guido Faglia (University of Brescia, Italy); Giorgio Sberveglieri (University of Brescia, Italy); Elza Bontempi (University of Brescia, Italy); Mariangela Brisotto (University of Brescia, Italy)

Presenter bio: Giorgio Sberveglieri is a full professor in experimental physics in University of Brescia since 1996. His expertise cover a wide spectrum of activities ranging from thin films to nanostructured materials exhibiting remarkable sensing properties in the field of gas sensors, biosensors and solar cells. He is the founder and the director of the Sensor Laboratory, CNR–IDASC and Brescia University (http://sensor.ing.unibs.it). During 35 years of scientific activity, he published more than 315 papers in international journals and he is highly cited with h-index = 42.

pp. 827-830

Synthesis of Ni-doped ZnO Nanorods by Hydrothermal Route and Its Gas Sensing Properties

Gotan H Jain (K. T. H. M. College, Nashik, India)

Presenter bio: I am an academician and doing research on material science, nanomaterial preparation and their use in gas sensing purpose.

pp. 831-835

Sensing 1-propanethiol, ethyl methyl sufide, Disulfide, bis[1-(methylthio)ethiol] from odorous emissions of a Sewage Treatment Plant

Baisali Rajbansi (Calcutta Institute of Technology, India); Ujjaini Sarkar (Jadavpur University, India)

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pp. 836-841

S14: CLOSING CEREMONY AND PRIZE DISTRIBUTION