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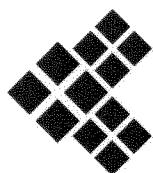
2015 Engii Conferences November Series

Economy and Management & Semiconductor and
Electronic Technology & Computer and Artificial Intelligence

Conference Program Guide

Guilin, China November 20-22, 2015

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**Scientific
Research
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千人智库

高效引才 科学决策

Part I Conference Schedule

Time: November 20- 22, 2015

Location: Guilin Bravo Hotel (桂林宾馆), Guilin, China

Date	Time	Lobby	
Nov. 20	14:00-17:00	Registration	
Date	Time	Xangbi Room(象鼻厅)	Diccai Room(叠彩厅)
Nov. 21	08:30-12:00	Invited Session 1 Dr. Yong Liu, Prof. Hui-Ming Wee & Technical Session 1: Economy and Management Series I Chair: Prof. Hui-Ming Wee Group photo & Coffee Break: 10:00-10:15	Invited Session 2 Prof. Byung-Teak Lee, Prof. Ille C. Gebeshuber & Technical Session 2: Semiconductor and Electronic Technology Series I Chair: Prof. Ille C. Gebeshuber Group photo & Coffee Break: 10:20-10:40
	12:00-13:30	Lunch 1st Floor	
Date	Time	Diccai Room(叠彩厅)	
Nov. 21	14:00-18:00	Invited Session 3 Prof. Zhun Fan & Technical Session 3: Computer and Artificial Intelligence Series I Chair: Prof. Zhun Fan Group photo & Coffee Break: 16:00-16:15	
	18:00-19:30	Dinner 1st Floor	
Date	Time	Xangbi Room(象鼻厅)	Diccai Room(叠彩厅)
Nov. 22	08:30-12:00	Technical Session 2: Semiconductor and Electronic Technology Series II Chair: Prof. Byung-Teak Lee Group photo & Coffee Break: 10:20-10:40	Technical Session 3: Computer and Artificial Intelligence Series II Chair: Prof. Minoru Sasaki Group photo & Coffee Break: 10:00-10:15
Nov. 23	08:00-18:00	One-day Tour	

Invited Session 2: Semiconductor and Electronic Technology Series

Invited Speech: Band-gap engineering of ZnO-based transparent conducting films with UV-range energy band-gaps

Speaker: Prof. Byung-Teak Lee, Chonnam National University, Republic of Korea

Time: 08:30-09:15, Saturday Morning, November 21, 2015

Location: Diecai Room(叠彩厅), 2nd Floor, Guilin Bravo Hotel



Abstract

Recently, transparent conducting materials with wide band-gaps (E_g) are drawing a great attention, as operations of optoelectronic devices shift to shorter wavelength. In this work, effects of alloying of group II (X: Be, Mg, Ca, Sr) elements and group III (X: Al, Ga, In, Tl) elements on the optical, electrical, and structural properties of the sputter-grown ZnO films were investigated, in an effort to obtain wide E_g materials with high conductivity and high transparency. Effects of the group III concentration, the growth variables, the process plasma composition, the substrate materials, and the annealing as well as effects of the co-doping of two group II elements were also studied in detail.

Results indicated that $Zn_{0.88}Mg_{0.05}Be_{0.03}Ga_{0.04}O$ films showed optimized properties, when grown at room temperature in Ar plasma. The film showed resistivity of $8.2 \times 10^{-4} \Omega\text{-cm}$, electron concentration of $5.3 \times 10^{20} \text{ cm}^{-3}$, and the optical E_g of 3.8 eV after annealed at 400°C in Ar+H₂ mixture. Films are very transparent, with transmittance over 85% in the wavelength range of 370-800 nm. Films with higher doping concentration showed higher E_g but revealed much higher resistivity.

Invited Speech: Sustainable Biomimetic Nanotechnology: Inspiration from Nature for Disruptive Micro- and Nanosystems

Speaker: Prof. Ille C. Gebeshuber, Vienna University of Technology, Austria

Time: 09:15-10:00, Saturday Morning, November 21, 2015

Location: Diecai Room(叠彩厅), 2nd Floor, Guilin Bravo Hotel



Abstract

Microsystems and nanotechnologies are booming technological fields with important implications on human life and the biosphere, on all scales. The micro- and nanoscale is an important realm for the language of life. Living nature excels in sustainable ways to accumulate materials, manufacture functional structures via

ambient processes and use and dispose of their products in ways that make them available as resources such as scaffolds, food or fertilizer for further organisms. The presentation will address Nature's nanotechnology, including mining with plants, nanoparticle production in organisms, biomineralization of microstructures comprising more than 70 different minerals, all produced at ambient conditions, and counterintuitive ways of plants resulting in functions that are of high importance in technical devices. Based on selected examples of already successfully transferred interdisciplinary knowledge from our greatest teacher to engineering the talk will reveal the underlying principles and provide food for thought for the development of a comprehensive nanotechnology for the well-being of all.

Invited Session 3: Computer and Artificial Intelligence Series

Invited Speech: Embedding intelligence in Robotic Systems



Speaker: Prof. Zhun Fan, Shantou University, China

Time: 14:30-15:15, Saturday Afternoon, November 21, 2015

Location: Diecai Room(叠彩厅), 2nd Floor, Guilin Bravo Hotel

Abstract

There are two different ways to integrate intelligence in robotic system. One is intelligent design for robotic systems (embedding intelligence in the design process), and the other is embedding intelligence in physical robotic systems. The former emphasizes using intelligent design methods to conceive conceptual designs of robotic systems, and the latter focuses on implementing an intelligent 'brain' to enable intelligent behaviors for robotic systems. Robotic systems are typical mechatronic systems. Mechatronic systems are becoming increasingly intelligent, and embedded intelligence in mechatronic systems also helps them to find new applications continuously. This presentation addresses the issue of embedding intelligence in robotic systems in two thrusts. The first thrust deals with applying computational intelligence in design automation and optimization of mechatronic systems. An approach called GPBG that combines the strength of Genetic Programming (GP) to explore the open-ended design space and Bond Graph (BG) as a unifying modeling tool for mixed-domain systems is introduced, and five case studies are presented to demonstrate the effectiveness of the GPBG approach. It is argued that with proper extension of this approach can lead to an emerging research direction of mechatronic design automation (MDA). This approach can also be applied to design automation of robotic systems, which is widely considered as typical mechatronic systems.

The second thrust presents two robotic systems where intelligent approaches or algorithms are embedded directly in the industrial prototypes to enhance their performance. The first application

Economy and Management Series:

The 2nd Conference on Marketing and Internet Economy (MIE 2015)

The 2nd Conference on Investment and Risk Management (IRM 2015)

International Conference on Management Theory and Practice (MTP 2015)

The 2nd Conference on Accounting and Financial Management (AFM 2015)

International Conference on Project and Quality Management (PQM 2015)

International Conference on Logistics and Supply Chain Management (LSCM 2015)

International Conference on Human Resource and Enterprise Management (HREM 2015)

International Conference on Data, Information and Knowledge Management (DIKM 2015)

Semiconductor and Electronic Technology Series:

The 3th Electronics and Circuits Conference (ECC 2015)

International Conference on Semiconductor Physics and Devices (ICSPD 2015)

International Conference on Microsystems and Nanotechnologies (ICMN 2015)

2015 International Conference on Image Analysis and Computer Vision (CIACV 2015)

International Conference on Remote Sensing Technologies and Applications (ICRSTA 2015)

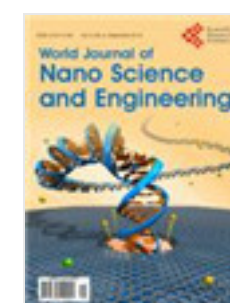
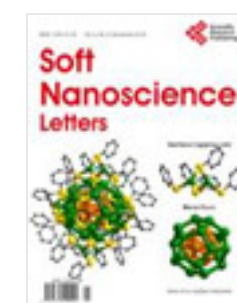
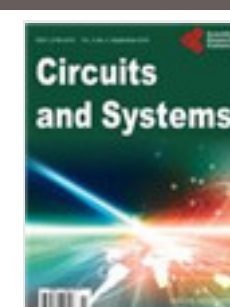
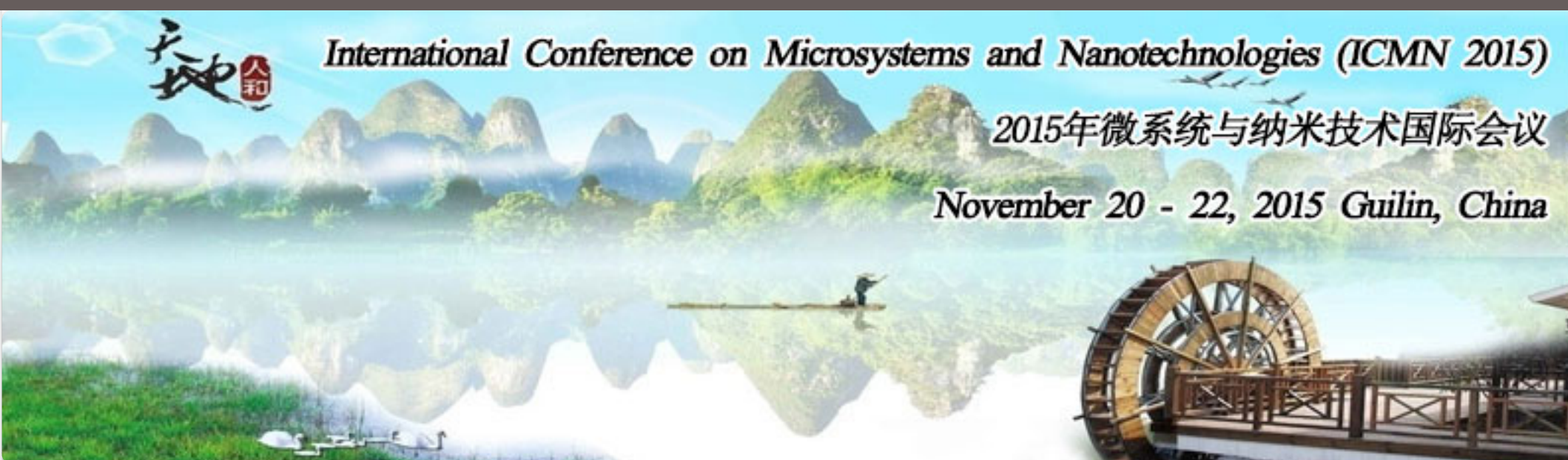
Computer and Artificial Intelligence Series:

The 4th Conference on Artificial Intelligence and Data Mining (AIDM 2015)

The 2nd Conference on Advances in Robotics and Automation Technology (ARAT 2015)

The 6th International Conference on Computer Science and Software Engineering (CSSE 2015)

International Conference on Machine Learning, Pattern Recognition and Intelligent Systems (MLPRIS 2015)

[Registration](#)

Countdown

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Biography



Prof. Ille C. Gebeshuber

Vienna University of Technology, Austria

Title:**Sustainable Biomimetic Nanotechnology: Inspiration from Nature for Disruptive Micro- and Nanosystems****Abstract:**

Microsystems and nanotechnologies are booming technological fields with important implications on human life and the biosphere, on all scales. The micro- and nanoscale is an important realm for the language of life. Living nature excels in sustainable ways to accumulate materials, manufacture functional structures via ambient processes and use and dispose of their products in ways that make them available as resources such as scaffolds, food or fertilizer for further organisms. The presentation will address Nature's nanotechnology, including mining with plants, nanoparticle production in organisms, biomineralization of microstructures comprising more than 70 different minerals, all produced at ambient conditions, and counterintuitive ways of plants resulting in functions that are of high importance in technical devices. Based on selected examples of already successfully transferred interdisciplinary knowledge from our greatest teacher to engineering the talk will reveal the underlying principles and provide food for thought for the development of a comprehensive nanotechnology for the well-being of all.

Biography:

Prof. Ille C. Gebeshuber is a University Professor of Physics from Austria, Europe. She is expert in Nanotechnology, Biomimetics and Tribology. Unlike most other physicists and engineers her approach to science is wide and holistic, and inherently trans- and interdisciplinary, bridging over to biology, the arts and the social sciences. Since 2009 she has been living and working in Malaysia. Prof. Ille is associate editor of the IMechE Journal of Mechanical Engineering Science (SAGE Publishing, London, UK), editorial board member of various scientific journals, author of two books on biomimetics and nanotechnology and editor of a book on biomimetics by Springer Scientific Publishing. Since 2011 she has been scientific advisory board member regarding nanotechnology for the Lifeboat Foundation, a US American think tank safeguarding humanity. Her research interests comprise the use of nanotechnology and biomimetics to address global challenges for humankind. Prof. Ille C. Gebeshuber serves on various international strategy boards. She has been acting as reviewer and advisor for agencies, universities, research institutions and public bodies. Prof. Ille is doing extensive public science outreach work and her professional activities are widely covered in the media. On rainforest expeditions with her students, who come from different cultures and different fields (Europe & Asia, physics, engineering, biology, veterinary medicine, applied arts, fine arts), they get inspiration for their work on interdisciplinarity, human vs. technical evolution and limits of morality and humanism in a computerised world. Her research interests are located at the interface of biology, engineering and the arts, systems thinking and nanotechnology. She is advisor in various expert panels, including the Science Advisory Board (Arlington, USA), the Strategy Board of the Austrian Center of Competence for Tribology (Wiener Neustadt, Austria), QS and THES University Rankings and the ISESCO Expert Panel on Nanotechnology.