

ISOCS Short Course Winter 2013

15-20 March 2013 – Kühtai, Austria

Biosensors and Biomimetics Inspired by Nature

Develop your knowledge of biomimetics and biosensors at the ISOCS Short Course in Kühtai near Innsbruck, Austria

This Short Course will cover topics including:

- Fundamentals of biosensors and biomimetics
- Whole cell based biosensors
- Biosensors interface circuits and signal processing
- Modelling of biological systems
- Applications of biosensors and biomimetics

Speakers

- Prof. Krishna Persaud, University of Manchester, UK
- Dr. Shannon Olsson, Max Planck, Jena, Germany
- Dr. Marina Cole, University of Warwick, UK
- Dr Zoltan Racz, University of Warwick, UK

The Short Course will cover fundamental concepts of biomimetics with a special focus on biosensors and their applications. An introduction to science of adapting designs from nature to solve technological problems will be supported with number of case studies including applications in olfactory biosensing, environmental monitoring, health care and robotics.

Who should attend?

The Short Course is ideal for anyone with an interest in biomimetics, biosensors and their applications and is new to the field; for example, PhD students, researchers, technologists and industrialists.

Short Courses organized by ISOCS are a unique combination of fundamental theory lectures and practical application exercises. They provide a head start into selected topics of current research and new developments in the area of chemical sensing, biosensing, olfaction and biomimetics. Most lecturers will be present throughout the duration of the course. Ample opportunity is given for discussion and networking.

Register now! Limited places available only!

For more information please visit www.olfactionsociety.org/wintercourse2012

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The ISOCS Short Course is delivered by active researchers with international reputations.



Krishna Persaud is Professor of Chemoreception at the University of Manchester, UK. His interests range from fundamental research into biological transduction mechanisms in olfaction through to the practical application of chemical sensors. Krishna has developed two successful spin-out companies targeting odour measurement and water quality and is also investigating healthcare applications.

Shannon Olsson is Project Leader in the Dept. of Evolutionary Neuroethology, Max Planck Institute for Chemical Ecology, Jena, Germany. She is a U.S. Fulbright Scholar and holds a PhD in Neurobiology and Behavior from Cornell University. Shannon is interested in the mechanistic basis for olfactory behaviour and is active in research on chemical ecology, insect neuroethology and evolutionary biology.

Marina Cole is Associate Professor in the School of Engineering and member of the Microsensors and Bioengineering Laboratory at Warwick University, UK. Her current research interests are in SAW based sensors, smart sensors, actuators and microsystems. Marina was involved in coordinating a large multidisciplinary EC funded project related to the development of a novel infochemical communication technology based on biomimetics and incorporating novel SAW-based biosensors.

Zoltan Racz is a postdoctoral research fellow in the School of Engineering at the University of Warwick, UK. He received his PhD in Electrical Engineering from the University of Notre Dame. Currently, his research focuses on smart sensor systems based on silicon-on-insulator for harsh environment sensing and surface acoustic wave sensors for infochemical communication.

The Short Course explores the area of biomimetics, biosensors and their applications. We have put together an exciting program that will provide attendees with both theoretical background and practical experience in the above areas. Topics will be delivered by lectures, discussion and laboratory demonstration sessions.

The Short Course is residential and the programme allows plenty of scope for networking with lecturers and attendees. Lectures take place in the morning, with the afternoon free for participants to network, consolidate their knowledge or enjoy the people to ski in the afternoon and we have amongst us, the organisers, some keen

skiers. Discussion sessions and labs resume in the early evening.

The venue is the superb Sporthotel Kühtai, located directly at the ski slopes, and the price includes all accommodation and meals. Participants may choose either a single room (1000€), or to share a double room with another participant at a **reduced fee (900€ for each participant)**. Students will receive **free ISOCS membership for 2013**. Accompanying persons are also welcome.

For full programme and conditions visit: www.olfactionsociety.org/wintercourse2012/

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Olfaction and Chemical Sensing

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