



IEEE COMPONENTS, PACKAGING AND
MANUFACTURING TECHNOLOGY SOCIETY



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IEEE CPMT Switzerland Chapter Technical Presentation Session

Packaging and Components for Medical and Pharmaceutical Devices

Roche Diagnostics Rotkreuz, 18th June 2015

As part of the course of regular technical presentation sessions, CPMT Switzerland chapter is organizing a session about packaging and components for medical or pharmaceutical electronic devices.

The goal of this seminar is to provide a platform where people can exchange information about their activities, interests and solutions.

Program

14:15 Gathering at Reception Building 5 (batch hand out)

14:30 – 14:45 Welcome and introduction

Daniel Thommen, IEEE CPMT Switzerland chapter chair, Development Manager Microdul AG

14:45 – 15:15 Stretchable electronics for spinal cord stimulation activities

Prof. Janos Vörös, Institute for Biomedical Engineering, ETH Zurich, Switzerland

A new class of electronic devices based on stretchable materials can interact with the soft human body in an unprecedented manner. Stretchable and biocompatible microelectrode arrays can be used to stimulate intact spinal cord circuits below an injury to control the movement of the limbs aiding rehabilitation and increasing recovery of spinal-cord injured patients.

15:15 – 15:45 Sweat sensors on flexible substrates for healthcare applications

Dr. Hoël GUERIN, Nanolab, Swiss Federal Institute of Technology, Lausanne, Switzerland

New sensors developed at the Nanolab at EPFL that collect data at the surface of our skin to provide real-time valuable information on our metabolism. In the core of this smart flexible system is a FinFET technology with existing electronics (CMOS), ultra-low power consumption and easiness to reproduce in large arrays of sensors.

15:45 – 16:15 Bloodgas Analytics at Roche - Present and future challenges

Dr. Rainer Jaeggi, Department Leader, R+D Bloodgas/Electrolyte

Bloodgas analytics is currently facing a transition from single parameter sensors to multi-parameter sensors with a higher level of integration. Higher integration and miniaturization offer cost benefits and scale economies but impose also technical challenges in a mass production process. This talk highlights the main opportunities and challenges.

16:15 – 17:15 Lab / Cleanroom tour by Roche

17:15 – 18:00 Apéro / Networking

Location: Arena, Building 5 (Floor 14), Forrenstrasse 2, 6343 Rotkreuz

Patronage: Dr. Steffen Gappisch, Project Leader, Roche Diagnostics International Ltd

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Please register by E-mail (daniel.thommen@microdul.com) before 12th June 2015