AUSTRIAN INSTITUTE OF TECHNOLOGY
TOMORROW TODAY

INVITATION

AIT LECTURE BY PROF. NIGEL LOVELL

The Departments Safety & Security and Health & Environment of the AIT Austrian Institute of Technology
invite you to the lecture:

NIGEL LOVELL

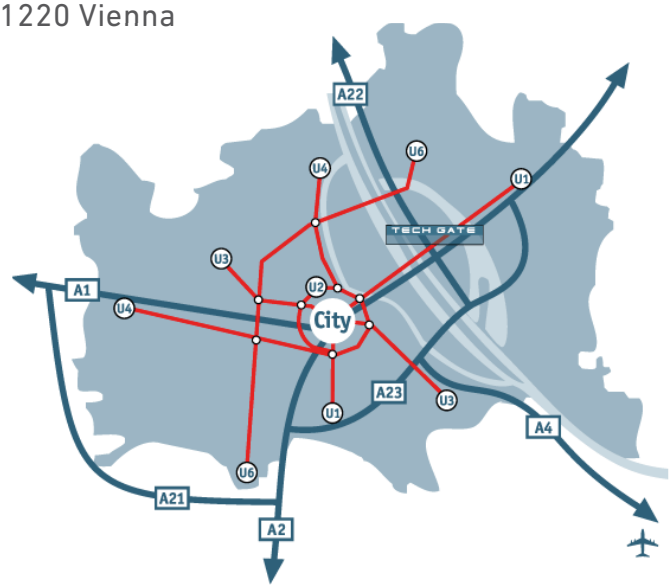
Graduate School of Biomedical Engineering, University of New South Wales, Sydney, Australia

» Biomedical and information technology aspects of the bionic eye «

The development of bionic vision technology aims to restore the sense of vision to people living with blindness and low vision. A visual prosthesis design for implantation will be described. Both engineering approaches and results from in vivo and in vitro experiments will be discussed. Advanced materials and micro-technology research has led to a novel method of electrode array construction and feedthrough designs for safely encapsulating the custom-designed electronics that acts as the core of the device. The implanted components comprise a split system with a behind the ear unit akin to a cochlear device used to receive power and data from a transcutaneous wireless link, and a two-wire connection to a second implant. This second implant is attached to the outside of the globe of the eye and comprises a ceramic and titanium hermetic package and a 98 channel electrode array. The proposed stimulation strategies to concurrently inject current into the neural retina at multiple sites in order to evoke punctate phosphenes will also be discussed.

Date 9th May, 4.00 pm

Venue TechGate Vienna,
Donau-City Straße 1, 1220 Vienna



Prof. Nigel Lovell Nigel Lovell is currently at the Graduate School of Biomedical Engineering University of New South Wales. Sydney where he holds a position of Scientia Professor. He has authored 450+ refereed journals, conference proceedings and abstracts, and been awarded over $68 million in R&D and infrastructure funding. His research work has covered areas of expertise ranging from cardiac modeling, telehealth technologies, biological signal processing, and visual prosthesis design. Through a spin-out company from UNSW, TeleMedCare Pty. Ltd., he has commercialised a range of telehealth technologies for managing chronic disease and falls in the older population. He is also one of the key researchers leading an R&D program to develop an Australian bionic eye.

Registration Please registrate under: eHealth@ait.ac.at
For addional information about the series please contact Helga Peinsold (phone: +43 50550 2962)

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