

International Symposium on Advanced Manufacturing Science for Future Systems

“Biomimetics”

Date: 5th December, 2016

Venue: Faculty Engineering Building No.2, room 213

Organized by

Department of Precision Engineering, School of Engineering
The University of Tokyo

Program

Moderator: Prof. Naoe Hosoda (Dept. Precision Engineering, U. Tokyo)

- 13:00-13:05 **Opening address**
Prof. Hiromasa Suzuki (Chair of Dep. Precision Engineering, U. Tokyo)
- 13:05-13:35 **Insect-Machine Hybrid System**
Prof. Ryohei Kanzaki (Director of RCAST, U. Tokyo)
- 13:35-14:05 **Biomimetic and architecture: Learning from nature for future buildings**
Prof. Thomas Speck (Director of Botanic Gardens, U. Freiburg)
- 14:05-14:35 **Meter-scale large area sensors with reel to reel micro machining and weaving integration**, Associate Prof. Seiichi Takamatsu (GSFS, U. Tokyo)
- 14:35-15:05 **Impact Protection Inspired by Nature**
Dr. Marc Thielen (U. Freiburg)
- 15:05-15:35 **Beetle-inspired deployable structures**
Assistant Prof. Kazuya Saito (IIS, U. Tokyo)
- Break -----
- Moderator: Prof. Tadatomo Suga (U. Tokyo)
- 15:50-16:20 **Tight junction: Learning from the climber *Passiflora discophora* how to improve technical anchorage systems**, Ms. Stefanie Schmier (U. Freiburg)
- 16:20-16:50 **Self-oscillating polymer gels as novel biomimetic materials**
Prof. Ryo Yoshida (Dep. of Materials Engineering, U. Tokyo)
- 16:50-17:20 **Fibrous multilayered plant structures with high energy dissipation capacity as source of inspiration for impact protection in architecture**,
Dr. Georg Bauer (U. Freiburg)
- 17:20-17:50 **Revolution of transdermal drug delivery by dissoluble micro needles**
Prof. Beomjoon Kim (IIS, U. Tokyo)
- 17:50 **Closing Address** Prof. Thomas Speck (U. Freiburg), Prof. Tadatomo Suga (U. Tokyo)