

**September 18<sup>th</sup>, 2014**

**AComIn Transfer Technology Seminar on Robotics and Innovations (Day 1)**

14.00 – 15.00

**Seminar 1: Industrial robotics and modeling of industrial casting processes**

**Lecture 1, Prof. Ken' Ichi Yano: Development of Machining Support Robots**

Haptic control methods that improve human force sensing and touch sensing ability have been studied. Machining support robots that enable workers to make high-quality products without making mistakes are developed.

15.00 – 16.00

**Lecture 2, Prof. Ken' Ichi Yano: Modeling and Optimization of Robotized Casting Processes**

Optimization algorithms using Computational Fluid Dynamics (CFD) have been developed. Also study is developed on optimization of mold design and product shape as well as optimization of casting process and die casting process.

16.00 – 17.30

Posters / Presentations of Bulgarian Scientists and Discussion

**September 19<sup>th</sup>, 2014**

9.00 – 10.00

**AComIn Transfer Technology Seminar on Robotics and Innovations (Day 2)**

9.00 – 10.00

**Seminar 2: Medical robots and Life Support Robots**

**Lecture 1, Prof. Ken' Ichi Yano: Development of Robots for Physical Therapy and A New Catheter System**

Robots for physical therapy are developed. These robots assist therapeutic exercise for shoulder joint in order to relieve the physical load on physiotherapists. We will continue to contribute to the development of medical technologies. We develop liquid handling technologies in the field of regenerative medicine and new catheter systems to improve the precision of treatment for

arteriosclerosis. Furthermore, we develop a support system for human-robot collaborative surgical operation.

10.00 – 11.00

**Lecture 2, Prof. Ken' Ichi Yano: Development of Life Support Robots**

We develop assistive robots for disabled or elderly persons to improve kinesthetic sense and relaxation. We support activities such as taking meals, sports, playing guitar and drawing.

11.00 – 13.00

Posters / Presentations of Bulgarian Scientists and Discussion

13.00 - 14.30

Lunch

14.30 – 17.00

Demonstrations of the AComIn Smart Lab and Discussion about AComIn Activities