**XXII. International Summer University, Kőszeg, Aug.21 – Sept.01, 2017**

# Central Europe 4.0 - the new industrial revolution in the 21th Century


## 28th August (Monday) 10:00- 13:00

*Venue: Zwinger Old-Tower*

*Program:*

10:00

***Dezső Boda***
**Opening remarks**

- Intertwine of changes in science, technologies, industry, culture, and social life
- The nature of Industries 1.0-3.0

10:05

***Norbert Kroó***
**Industry 4.0 and Photonics**

10.20

***Tamás Siszer***
**Digitized Factory**

- What is a Cyber-Physical system?
- What type of advantages does traceability, transparency bring to the customer?
- How did we move from the individualized products (guild), through mass production to individualized products in mass production scenario?
- Is Industry 4.0 really for only automatized production, must see how and what elements should be implemented, rolled-out in semi-automated scenarios?
- Most industrial production suppliers have been delivering their own platforms, and these initiatives are striving to set open standards, for interoperability.

10:35

## *Zoltán Kántor*

**Smart and Self-X**

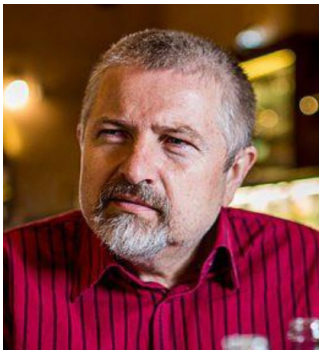
- The Self-X pressure: self-description, self-explanation, self-configuration, self-diagnostics, self-healing, self-adaptiveness, self-organization, self-installation, self-optimization.  All these features of future smart components and systems become more and more necessary, when humans have no time and capacity to design, set up and maintain too complex systems, or when the individual learning is not enough or economic or fast enough.
- Self-driving car, self-organizing production, self-developing software, self-diagnosing machine: that's more than automatization, which meant: robots and computers will do, what humans are not capable of. From now: humans will only act in fields and situations, where robots and computers are not efficient enough (yet). The routine, the simple parts of jobs become automatized and computerized, and only difficult parts will remain, requiring creativity and continuous decisions.

10:50 ***Coffee break***


11:00

## *László Z. Karvalics*

**„Industry” in the long twentieth century (1870-2020): entangled dimensions**



- *Entangled economy*: industrialized agriculture, informatized industry, informatized agro-industry
- *Entangled society*: industrialized production, education, science, politics and healthcare
- *Entangled technologies* then and now: hybrid material technology, information technology, intellectual/knowledge technology, human technology
- *Entangled control:* operation, management, distribution, governance

11:15

## *Ilona Kiss*

Based on her experiences with Russian-EU R+D applications she will speak about how R+D projects can be transformed into policies aimed at to promoting Industry 4.0 development in a state dominated economy.

11:25

## *György Csepeli*

**Concise SWOT analysis of the coming Revolution 4.0**

- *Strengths:* accelerated pace of globalization, interconnectedness, the end of duality of “soul” and body”
- *Weaknesses:* Increase of global injustice, scale-free distribution of goods, feeling loss off superfluous, the rise of; nihilism and fundamentalism
- *Opportunities:* new paths for evolution, personalities with vision, going to Mars and beyond
- *Threats:* Armageddon, irreversible destruction of the environment, overpopulation

11:40

***Coffee break***


11:50

## *Roundtable discussion*