



**SCHWARZMÜLLER**



## Call for Entries of Students Workshop "Smart Designs for STRATASYS 3D Printing"

Student competition supported by TECNOTRADE OBRABECI STROJE s.r.o., CZ,  
ICDES 2014, Parkhotel, Pilsen, Czech Republic, from Aug. 31 to Sept. 3, 2014

### Design concept rules

Design a smart technical product model which can be produced only with a Stratasys 3D printer, in other words, the model that is possible to produce simply because it is additive manufacturing not removal machining. The model should satisfy the following assigned constraints:

- Maximum number of authors/designers is 1. Student status ID is required.
- Technological constraints of a given Statatasy printer (using materials of FDM thermoplastic resin and/or PolyJet resin). Applicant should select one material from FDM thermoplastics resin and/or (?) PolyJet resin.
- Maximum width, depth and height of a part are respectively 100 mm, 100 mm and 75 mm.
- Maximum number of parts to be assembled is 3. As a matter of course, only one part model is welcome. In this case, "a part" means a "at once" printed model without assembly, and in other words, "a part" is constructed by one STL file.
- If a mechanism (assembly), which has two or three parts, is going to be produced, there must be a gap of 0.15 mm between two contacting surfaces.
- 46 colour shades are available for the 3D printed model. Applicant should assign the part(s) colours(s). For example, when an applicant designs a model assembled by three parts, the applicant should assign one colour to one part.
- Stratasys logo should be installed in the outmost model surface and the 3D data of logo will be supplied by Tecnotrade Obrabeci Stroje s.r.o. Applicant will be able to download the 3D data of the logo through ICDES 2014 website <http://www.jsde.or.jp/icdes2014/>.
- The copyright of the 3D printed model belongs to the designer. Tecnotrade Obrabeci Stroje s.r.o. can make use the printed out models for PR activities with clearly introducing the designer's name and affiliation without his/her permission
- The owner of the printed out model is the designer. The designer can bring it when the Workshop is closed. However, when the model(s) is left at the Workshop room after the conference, it will belong to Tecnotrade Obrabeci Stroje s.r.o.
- For applicant information, please visit <http://www.stratasys.com/> ..

## Applicant's procedure and conditions

- (1) An applicant submits the following compacted digital data in ZIP format **by the end of May** to [icdes2014@jsde.or.jp](mailto:icdes2014@jsde.or.jp)
  - Design concept summarized in one sheet of A4 size according to the template available on <http://www.jsde.or.jp/icdes2014/>
  - STL and STEP data for each part designed by 3D-CAD
  - Additional document which describes the material (FDM thermoplastic resin or PolyJet resin) and the colour(s) of part(s)

The volume of the ZIP file should be smaller than 5 MB. If the volume becomes over 5 MB, the applicant prepares the file at a free download website and he/she must let us know the corresponding URL.
- (2) The reviewing committee will inform the evaluation result to the applicant **by the end of June**. Then, the selected applicants should register to the conference via <http://www.jsde.or.jp/icdes2014/> and can accordingly participate in the ICDES 2014 conference programmes including the Student Workshop.
- (3) The design models of the selected applicants will be produced by Stratasys 3D printer and displayed at the Workshop room in the conference site from Aug. 31 to Sep. 3. The selected design concepts posters of A1 size in “portrait” orientation will be displayed at the Workshop room at the same time. The A1 posters are made by the organizing committee from the submitted design concepts by the applicants. The applicant can give a short oral presentation of his/her designed product with use of its printed model, prepared poster at the Workshop room.
- (4) Some applicants who designed excellent 3D printed models will be commended and awarded by the organizing committee at the buffet dinner (banquet). They will be invited to the dinner at no charge.

Contact info for inquiries: [icdes2014@jsde.or.jp](mailto:icdes2014@jsde.or.jp) with a subject of “Inquiry on Student WS in ICDES 2014”

Conference website: <http://www.jsde.or.jp/icdes2014/>

## Advertising by Organizing Committee and Local Organizing Committee of ICDES 2014



## The 3rd International Conference on Design Engineering and Science

August 31 – September 3, 2014, Pilsen, Czech Republic

<http://www.jsde.or.jp/icdes2014>

### Brief Information and Preliminary Invitation (Ver. 2)

**Organizer:**

Japan Society for Design Engineering (JSDE)

**Co-organizer** (under the auspices of):

University of West Bohemia (UWB),  
the City of Pilsen, and Pilsen Region

**Honorable Chairman:**

Eiji MUTOH

**Conference Chairman:**

Kazuyuki SASAJIMA, President, JSDE

**Conference site:**

**Parkhotel, U Borskeho parku 31, 320 04 Plzen, Czech Republic**

<http://www.parkhotel-czech.eu/>

**Access:**

Prague 90km, Nuernberg 180km, Muenich 290km, Vienna 350km,  
Berlin 410km, Paris 1000km, Milano 780km and 2 km from Pilsen city center  
International Roads: E50, E53, E49 and Motorway D5  
Airport: Prague Vaclav Havel Airport 80km (using D5)



**Main theme:**

The theme of ICDES2014 is set as

***New Role of Design Engineering and Science***

**Technical Sessions:**

**(1) Design Methodology**

Design process, Evaluation of design, Design assurance, Conceptual design, Ethics in design, Design strategy, Reliability, Mechatronics design

**(2) Design and Development**

Design of mechanical elements, Mechanical synthesis, Robotics, Linkage, Cam mechanism, Die cast, Biomedical device, Control system design, Welfare device, Vehicle dynamics design, Thermal design, Strength of materials, Human engineering

**(3) Design and Production**

Design management, Life cycle design, Producibility, Production planning, Inverse manufacturing, Reverse engineering, Recycling technology, Machine tool, Automation design, KANSEI

**(4) CAD/CAM/CAE**

Computer graphics, 2D/3D-CAD, CAM, Database, Tool path design, Expert system, Rapid prototyping, Finite element method, Optimization method, Dynamical simulation, Modeling, Artificial Intelligence

**(5) Accuracy and Measurement**

Surface characteristics, Tribology, Tolerance, Truncation, On-machine measurement, Industrial standard

**(6) Design Education**

Creative design education, Project based learning, CAI, Virtual reality, e-learning, Technology transfer, On hand learning, Robot contest, Active learning

**(7) Others Related to Design Engineering**

**Program ( Tentative ):**

August 31 (Sun)	Registration from afternoon (with soft drinks)
September 1 (Mon)	Opening ceremony, Special speech, Technical sessions (parallel) and Student Workshop
September 2 (Tue)	Technical sessions (parallel), Student Workshop and Buffet dinner (banquet)
September 3 (Wed)	Technical sessions and Closing ceremony

**Special speeches:**

- (1) Design Methodology and Design Science – Are we aware what we are doing in Design Research?  
by Prof. Herbert Birkhofer (Darmstadt University of Technology) on September 1.
- (2) Visions for Cooperation of the World Design Societies  
by Prof. Christopher McMahon (University of Bristol) on September 2.

**Conference fees (per one person in Japan yens – JPY)**

The conference basic fee includes registration, proceedings and coffee/tea breaks refreshment.

<b>Registration:</b>	<b>before July 31, 2014</b>	<b>after August 1, 2014</b>
Attendee with banquet (including speaker)	50,000 JPY	60,000 JPY
Student attendee with banquet (including speaker)	25,000 JPY	25,000 JPY
Attendee without banquet (including speaker)	40,000 JPY	50,000 JPY
Student attendee without banquet (including speaker)	15,000 JPY	15,000 JPY
Banquet fee for additional guests (including student)	10,000 JPY	10,000 JPY

**Organizing Committee:**

**Chair:** Tohru KANADA, Kanto Gakuin Univ.

**Co-chair:** Stanislav HOSNEDL, UWB

**Co-chair:** William ION, University of Strathclyde

**Treasure:** Nobuyuki IWATSUKI, Tokyo Inst. of Tech.

**Invited session:** Keiichi WATANUKI, Saitama Univ.

**Program:** Toshio OTAKA, Kokushikan Univ.

**Publication:** Koki KIKUCHI, Chiba Inst. of Tech.

**Paper Review:** Koki KIKUCHI, Chiba Inst. of Tech.

**Awards:** Hideki AOYAMA, Keio Univ.

**Conference site:** Stanislav HOSNEDL, UWB

**General affairs and Secretariat:**

Masayuki OCHIAI, Tokai Univ.

**Paper Review Committee:**

**Chair:** Koki KIKUCHI, Chiba Inst. Of Tech.

**Paper Award and Student Award committee:**

**Chair:** Hideki AOYAMA, Keio Univ.

**Local Organizing Committee:**

**Honorary Chair:** Miroslav SIMANDL, UWB

**Chair:** Stanislav HOSNEDL, UWB

**Secretariat :** Vaclav VANEK, UWB

**Administration:** Josef DVORAK, UWB

**Accommodation and Social Program:**

Petra HANAKOVA, Parkhotel

**Optional programs:** The following three plans are introduced in the ICDES 2014 web site.

**Plan A :** Cesky Krumlov,

**Plan B:** Karlovy Vary

**Plan C:** Pilsen

*Plan C will be supported by the sponsorship from Plzensky Prazdroj (Pilsen Brewery).*



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Design Engineering and Science



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### Institutional and Industrial Sponsors



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