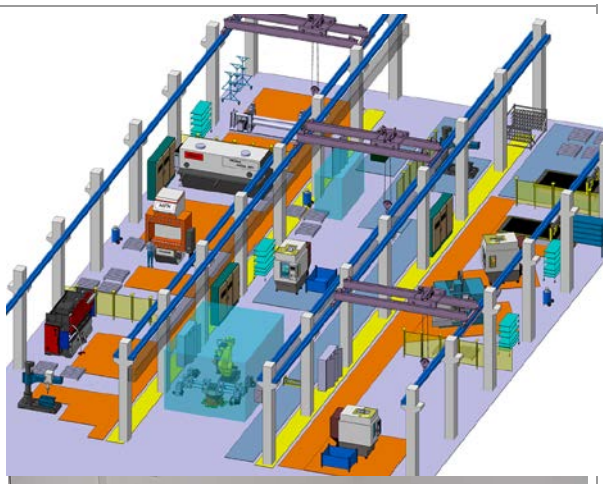
DASSAULT SYSTÈMES SOLUTIONS CENTER

Contact details

Name	**Dassault Systèmes Solutions Center**
Acronym	**DSSC**
Logo	CENTRUL DE COMPETENTE SI SOLUTII DASSAULT SYSTEMES
Site	http://www.muri.utcluj.ro/index.php?main_page=admitere&subsection=master&id_specializare=5
Address	103-105 Muncii Av., rooms B07, B09, M401, M402, M403,M404, Cluj-Napoca, Romania
Faculty Department	**Faculty of Machine Building** **Design Engineering and Robotics Department**
Telephone	+40 264 202796
Fax	+40 264 415710
Director	Prof. Dr. Eng. Daniela Popescu
e-mail	daniela.popescu@muri.utcluj.ro



Areas of expertise

The main focus of the center is **Digital Product and Production Design Development and Simulation** based on the following topics:
CAD/CAM/CAE – the center is the first Dassault Systèmes academic partner from Romania and offers solutions in the fields of computer aided design, as well as modelling and simulation of products and manufacturing systems**.**
Reverse engineering and digitization –with interdisciplinary applications in: innovative product development, digital archaeology and reconstruction of history, medical prosthetics and others.
Virtual and augmented reality – complex applications regarding the human – virtual environment interaction using the newest hardware – software solutions.

Team

Prof. Dr. Eng. Daniela Popescu, Prof. Dr. Eng. Mircea Galiş, Assoc. Prof. Dr. Eng. Călin Neamţu, Assist. Dr. Eng. Florin Popişter, Assist. Dr. Eng. Rareş Ghinea, Assist. Dr. Eng. Radu Comes, Dr. Eng. Buna Zsolt, Dr. Eng. Ionuț Badiu, Eng, Sabau Radu, Eng. Zabala Ioan

Representative projects

DACIT, "The conservation and revitalisation of cultural and natural heritage, When ancient everyday life becomes UNESCO heritage. The scanning, digital restoration and contextualization of Dacian artefacts from Orăştie Mountains", EEA grants - PA16/RO12, (2015-2016)
CAD/CAM/CAE, projects contracts with industrial partners Comelf SA, Turdeana SA, RAAL SA, Robert Bosch SRL, Continental Automotive Romania, Elcom Cablaje, Leoni Wirings System Romania, etc.
NoGAP, **"Knowledge Transfer Community to bridge the gap between research, innovation and business creation"**, European FP7 project, (2013-2016)
"Digitizing and reconstructing the historic artifacts from the "Grădiştea de munte" archaeological site (Sarmisegetuza Regia)", The National Museum of History of Transylvania, (2012)

“Blended learning course on Measurement Uncertainty for advanced vocational training”, Leonardo da Vinci - Transfer of Innovation, (2011-2013)
“Realizing a virtual museum for promoting the patrimony of The National Museum of History of Transylvania”, The National Museum of History of Transylvania (2010)
“Project concerning research on new product design, development and simulation”, HAMK Univ. Finland , (2007-2009)
“Scanning and generating surfaces for a orthopedic prosthesis”, SC Gibas CNC East Europe SRL, (2008)

Significant results

The most representative publications of the past 5 years:

1. Măruţoiu, C., I. Bratu, L. Troşan, C. Neamtu, V. C. Măruţoiu, D. Pop, C. Tănăselia, and S. Garabagiu. "Scientific investigation of the Imperial Gates belonging to the wooden church from Săcel, Turda County, Romania." Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 152 (2016): 311-317.
2. C. Radu, C. Neamtu. "Design a low-cost eyewear display adapted to additive manufacturing." Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering, 58, no. 4 (2015).
3. D. Popescu, F. Popister, S. Popescu, C. Neamtu, and M. Gurzau, 2014. Direct toolpath generation based on graph theory for milling roughing. Procedia CIRP, 25, pp.75-80.
4. D. Popescu, S. Popescu, C. Neamţu, “Framework for increasing adequacy of simulation software in training CMM specialists”, in *10th CIRP International Conference on Computer Aided Tolerancing*, pp. 243-250
5. D. Popescu, S. Popescu, C. Neamţu, D. Mihai, “Model for developing design of the electronic courses” in *IEEE International Conference Automation, Quality and Testing, Robotics*, pp. 483-488
6. C. Neamţu, D. Hurgoiu, S. Popescu, M. Dragomir, H. Osanna, “Training in coordinate measurement using 3D virtual instruments”, in *Measuremen*t, vol. 45, no. 10, 2012, pp. 2346-2358
7. D. Popescu C. Neamţu, R. Răcăşan, “Course on Measurement Uncertainty Developed in an International Consortium”, in *Proceedings of the 5 Balkan Region Conference on Engineering and Business Education & 2nd International Conference on Engineering and Business Education*, Sibiu, Romania

Significant solutions:
Measurement uncertainty evaluation in case of classical measurements hand tools for length
Mold Design for injected plastic part
Reverse engineering of mechanical parts
Terrestrial laser scanning
Products and technologies:
Virtual reality application for museum
Augmented reality application for measurement
Others:
Neamțu Călin, Popescu Daniela, Popișter Florin, *Module CAD/CAM în Catia V5*, ISBN 978-606-543-361-8 Editura Mega, Cluj-Napoca, 2013
Neamţu Călin, Dragomir Mihai, Popescu Daniela, Popescu Sorin, Răcăsan Radu *Uncertainty of conventional measurements / Incertitudinea de măsurare în metrologia clasică*, , ISBN 978-973-662-783-5, Editura UT PRESS, Cluj-Napoca, 2012
Wojciech Plowucha (ed.) et al. – *Didactics of Coordinate Metrology*, Editura Wydawnictwo naukowe Akademii Techniczo-Humanistycznej W Bielsku-Bialej, ISBN 978-83-63713-30-0 - Bielsko Biala 2012, - capitolul Virtual Laboratory, autori: Călin Neamțu, Mihai Dragomir, Daniela Popescu, Rareș Ghinea

The offer addressed to the economic environment

Research & development	Virtual reality in training and education E-education Designing and optimization of products and industrial manufacturing systems Reverse engineering Digital Archaeology Research in the field of Digital Factory simulations Research on adapting the reverse engineering techniques in various interdisciplinary fields (art, medicine, etc.) Reverse engineering and reconstruction of complex surfaces Designing, modelling and 3D simulating of manufacturing systems 3D modelling of components and complex assemblies
Consulting	Consultancy regarding the optimization of CAD/CAM processes Consultancy regarding production planning Consultancy regarding advance 3D modelling Consultancy in virtual simulation
Training	CAD/CAM/CAE: using the Dassault Systèmes software packages Training on various topics with the help of virtual reality Advanced reverse engineering technique 3D Shet metal design Measurement Uncertainty