



ETH zürich

CURRICULUM VITAE

Dr. Eng. SAŠA ĆUKOVIĆ, Scientific Associate, MSCA Fellow
Swiss Federal Institute of Technology – ETH Zurich, Institute for Biomechanics
- IfB, Zurich, Switzerland
Leopold-Ruzicka-Weg 4, 8093 Zurich, Switzerland

Personal Information:

Name & Title: **Dr Saša Ćuković, Dipl., -Ing.**
Home address: No. 20, c/o Room Estate B, Auhofstrasse, 8051, Zurich, Switzerland
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E-mail addresses: cukovic@kg.ac.rs, sasa.cukovic@hest.ethz.ch
Website: <https://scukovic.com/>

Researcher ORCID: 0000-0003-0525-2197 | ResearchGate: <https://tinyurl.com/yagse726>
Google Scholar: <https://tinyurl.com/ycxxxwep> | Researcher ID: B-1140-2016

Research and Teaching Interests:

Science: Geometrical Modelling, Computational Biomechanics, Biomedical Engineering, Spine, Computer Vision, Industry 4.0.
Product: Patient Specific Implants and Product Design, Diagnostics and Monitoring, Mechanical Parts.
Tools: CAD/CAM/CAE Engineering, BioCAD, 3D Reconstruction, Digitalization, Reverse Engineering, Computer Vision (Augmented Reality and Virtual Reality), Medical Imaging (MRI/CT).
Diseases: Scoliosis.

Education:

2008 - 2015 **PhD in Mechanical Engineering**, University of Kragujevac (UniKg), Faculty of Engineering, **CGPA 10.0/10.0**. PhD thesis supervisor: Prof. Dr Goran Devedžić. 14/09/2011-04/09/2015. Awarded on 28/06/2016. PhD Thesis “Non-Rigid Registration of Sculptured Surfaces in Internet Environment” (in Serbian: “Деформабилна регистрација скулптурних површи у интернет окружењу”).
2002 - 2008 **MSc in Mechanical Engineering**, Graduate Mechanical Engineer, University of Kragujevac (UniKg), Faculty of Mechanical Engineering, **CGPA 9.79/10.0 (Highest average grade in the class)**. 05/07/2002-01/12/2008.
1998 - 2002 Technical High School of Mechanical and Transport Engineering, Kragujevac, Serbia **(Best student of the class)**. 01/09/1998-12/06/2002.

Professional Experience:

2020 - **MSCA Fellow, Principal Investigator (with employment contract)**, Marie Skłodowska-Curie Individual Fellowship H2020-MSCA-IF-2019, ScolioSIM - 892729. <https://cordis.europa.eu/project/id/892729>.

- 2019 - **Scientific Associate (with employment contract up to July 2021)**, Institute for Information Technologies – IfIT, Department for Technical Sciences, Jovana Cvijića, 34000 Kragujevac, University of Kragujevac, Serbia. 01/09/2019 – present.
- 2016 - 2019 **Scientific Associate (with employment contract)**, BioIRC, Faculty of Engineering, University of Kragujevac, Serbia. 06/07/2016-31/08/2019.
- 2017 - 2018 **Postdoctoral Fellow (without employment contract)**, Institute for Biomechanics, Department of Health Sciences and Technology, ETH Zurich, Switzerland. Swiss Government Excellence Scholarship holder - 14/09/2017-27/08/2018. Project: “Non-invasive 3D Computer-Aided Diagnosis and Monitoring of Spinal Deformities in Children with Idiopathic Scoliosis”. Academic Supervisor: Prof. Dr William R. Taylor
- 2012 - 2016 **Research & Teaching Assistant (with employment contract)**, Faculty of Engineering, University of Kragujevac, Serbia. 01/04/2012-06/07/2016.
- 2009 - 2012 **Scholarship holder - PhD Student (without employment contract)**, Ministry of Education, Science and Technological Development of Republic of Serbia. 01/03/2009-01/04/2012.
- 2006 **Volunteer in a Construction Department** - Construction Engineering of Die Tools for Automotive Industry (AUDI, Mercedes Benz, etc.) at Unior Components, Trg Topolivaca 4, 34000 Kragujevac, Serbia. Responsibilities: Generating technical documentation, Die tools computer aided design, CAD modelling.

Personal skills and competences

Mother tongue(s)	Serbian																			
Other language(s)																				
Self-assessment <i>European level (*)</i>																				
English																				
German																				
	<table><tr><th colspan="2">Understanding</th><th colspan="2">Speaking</th><th rowspan="2">Writing</th></tr><tr><th>Listening</th><th>Reading</th><th>Spoken interaction</th><th>Spoken production</th></tr><tr><td>excellent</td><td>excellent</td><td>excellent</td><td>excellent</td><td>excellent</td></tr><tr><td>good</td><td>good</td><td>good</td><td>good</td><td>good</td></tr></table>	Understanding		Speaking		Writing	Listening	Reading	Spoken interaction	Spoken production	excellent	excellent	excellent	excellent	excellent	good	good	good	good	good
Understanding		Speaking		Writing																
Listening	Reading	Spoken interaction	Spoken production																	
excellent	excellent	excellent	excellent	excellent																
good	good	good	good	good																
	<i>(*) Common European Framework of Reference (CEF) level</i>																			
Social skills and competences	First-class student, nice personality, polite manners, cheerful nature, dynamic, communicative, cooperative, strong desire for gaining new knowledge and experience.																			
Organizational skills and competences	He has profound knowledge and skills in application of very sophisticated and modern 3D systems for rapid product and process development. CAD/CAM systems and knowledgeware are major field of his interest. He has proved ability to improve and apply original ideas for solving many practical engineering problems in modern CAD/CAM systems.																			
Technical skills and competences	Professional knowledge of CAD/CAM systems: ▪ CATIA V5 (Part Design, Drafting, Assembly, Generative Shape Design, NC Manufacturing (Prismatic & Surface Machining), Sheetmetal Design, Reverse Engineering and KBE modules); ▪ Pro/ENGINEER, PTC/Creo; ▪ Autodesk Auto CAD and Inventor;																			

Computer skills and competences

- Unity 3D;
- Mechanical Desktop.

Professional knowledge of Reverse Engineering software:

- Geomagic Studio;
- MevisLab,
- MeshLab,
- Materialize Mimics.

Knowledge of programming languages:

- Visual Basic – VBA script;
- MS Visual Studio;
- MATLAB;
- SPSS.

Excellent knowledge of:

- Microsoft office and Internet;
- Adobe Reader/Acrobat;
- SS DVB applications (Skystar Satellite - Digital Video broadcasting systems);
- Various media applications, etc.
- Microsoft windows operating system.

**AWARDS, CERTIFICATES, DIPLOMAS
(NATIONAL & INTERNATIONAL)**

Diplomas and certificates:

2021	Certificate – British Council: Online Science Communication and Public Engagement Training Course as part of The Western Balkans Science Engagement Programme, Issued by University of West England - Bristol, United Kingdom.
2021	Certificate – ETH Zurich: Online course Leadership Essentials , Zurich, Switzerland.
2018	Online certifications edX: EPFLx: FndBioImgx Fundamentals of Biomedical Imaging: Magnetic Resonance Imaging (MRI) (Okt/2017-Jan/2018).
2017	Online certifications edX: MITx: 2.008x Fundamentals of Manufacturing Processes (Score 99%, Oct/2017-Dec/2017), Certificate: https://courses.edx.org/certificates/6ae63bc612b547dd8f9c7467d11727b8 .
2017	Online certifications edX: EPFLx: FndBioImgx Fundamentals of Biomedical Imaging: Ultrasounds, X-ray, positron emission tomography (PET) and applications (Score 93%, Sept/2017-Dec/2017), Certificate: https://courses.edx.org/certificates/184e223b068b4ffba4fd42b20344f191 .
2007	University of Kragujevac, Faculty of Mechanical Engineering Kragujevac, Diploma for 1st place in group for machine elements on the competition MASINIJADA 2007, Herceg Novi, Montenegro.
2005	University of Kragujevac, Faculty of Mechanical Engineering Kragujevac, Diploma for 1st place in group for machine elements on the competition MASINIJADA 2005, Kopaonik.
2005	Students Organization, Faculty of mechanical engineering in Kragujevac, Diploma for 1st place in group for machine elements on the competition 45 th MASINIJADA 2005, Kopaonik.

- 2004 University of Kragujevac, Faculty of Mechanical Engineering Kragujevac, Diploma for **1st place in group for machine elements** on the competition MASINIJADA 2004, Budva.
- 2004 Students Organization, Faculty of mechanical engineering in Kragujevac, Written commendation for **1st place in group for machine elements** on the competition 44th MASINIJADA 2004, Budva.
- 2003 UNIVERSITY OF CAMBRIDGE, English for Speakers of Other Languages, Entry Level Certificate in English (ESOL), Certificate for **Preliminary English Test (PET)** Council of Europe Level B1, 2003.
- 2002 Republic of Serbia, Ministry of education and sport, Ministry of science, technology and development, Republic center for talents Belgrade **DIPLOMA AND GOLD MEDAL for the best science research work Family tables in information technologies** at 44th Republic review of talents Kladovo, 2002.
- 2002 Karadjordjevic's Royal family, written commendation for all big successes in high education, Belgrade, 2002.
- 2002 Republic of Serbia, Ministry of education and sport, Ministry of science, technology and development, Republic center for talents Belgrade, Regional center for talents, **Diploma for 1st place in information technologies** at 44th Republic review of talents, Kladovo, 2002.
- 2002 Republic of Serbia, Ministry of education and sport, Republic center for talents Belgrade, Regional center for talents, **Diploma for 1st place in information technologies** at Regional review of talents, Kragujevac, 2002.

National scholarships and awards:

- 2009-2012 PhD **Scholarship holder of Ministry of Science and Technological Development, Republic of Serbia**, under the grant "Ontological Modelling in Bioengineering" (2009-2012).
- 2011 Declared as the **best young presenter** at 34th International Conference on Production Engineering, City of Nis, Serbia, 30/09/2011.
- 2008-2010 Scholarship holder of City of Kragujevac under the Fund "Akademik Dragoslav Srejsovic". Republic of Serbia, (2010/2011).
- 2008 He has won the **"One-month trip to the European Union"** granted by European Movement in Serbia, in cooperation with the Embassy of the Republic of Austria and the Belgrade City Hall, to the best university students in Serbia (2008).
- 2006 Winner of valuable Eurobank EFG, AD Belgrade, scholarship and diploma within the project **"We are investing in European values"**, as the best student at Faculty of Mechanical Engineering in Kragujevac (2006).
- 2004-2008 Scholarship holder of automotive industry **"ZASTAVA AUTOMOBILI Kragujevac"** (2004-2008).

International scholarships and awards:

- 2021 **CATIA Champion**, awarded by Dassault Systems (Paris, France).
<https://www.youracclaim.com/earner/earned/badge/57e5beaf-01d1-449a-8377-ca839afdade2>
- 2020 **Marie Sklodowska-Curie Individual Fellowship** H2020-MSCA-IF-2019, ScilioSIM - 892729. <https://cordis.europa.eu/project/id/892729>.
- 2019 **ERASMUS+ staff mobility grant** for training between programme and partner countries 2018-1-R001-KA107-047844. "Lucian Blaga" University of Sibiu, Romania.
- 2019 **Austrian scholarship for short Postdoc visits** - Stipendien der Stipendienstiftung der Republik Österreich, Postdocs. Awarding body: Scholarship Foundation of the Republic of Austria for the academic year 2018/19. OeAD-GmbH/ICM on behalf of

- and financed by the Austrian Federal Ministry of Science, Research and Economy (BMWF).
- 2019 **The Seal of Excellence:** 19/03/2019 – ScolioSIM project proposal for the H2020-MSCA-IF-2018 programme. The Seal of Excellence label awarded to projects submitted to Horizon 2020 which were deemed to deserve funding in the high-quality in a highly competitive evaluation process but did not receive it due to budget limits.
- 2018 **SwissBioLabs Award 2018 - 3rd place** for the early-stage StartUp, at the 2nd SwissBioLabs Start-Up Challenge "Diagnostics goes digital", 7 finalists. University of Applied Sciences Northwestern Switzerland, 21/06/2018.
- 2017 **Swiss Government Excellence Scholarships for Foreign Scholars and Artists - 2017/2018**, Postdoctoral Candidate @ ETH Zurich, Switzerland. Awarding body, the Federal Commission for Scholarships for Foreign Students (FCS), Bern, Switzerland on the basis of academic and scientific excellence, March 2017.
- 2016 **Award for the top ISI publications in 2016** (M21/3): Executive Agency for Higher Education, Research, Development and Innovation Funding UEFISCDI, Romanian Ministry of Education and Scientific Research (MECS).
- 2016 Selected in **Top-8 visiting assistant professors (docents) at Politecnico di Bari** (Italy) after call „INTERNATIONAL CALL FOR N.8 OUTSTANDING AND HIGHLY QUALIFIED VISITING PROFESSORS, VISITING RESEARCHERS AND VISITING FELLOWS“, 2016.
- 2016 **Falling Walls Lab Serbia 2016 - 3rd Place** for Breaking the wall of HDSD, 25/09/2016, 15 finalists, DAAD & Konrad Adenauer Stiftung, Belgrade.
- 2017 **First prize MIMICS INNOVATION AWARD 2016 – EMEA region**, awarded by Materialise (Leuven, Belgium) for a cutting-edge research "From Generic to the Patient Specific 3D Model of the Spine in Case of Adolescent Idiopathic Scoliosis (AIS)", ESB2016, Lyon, France, July 2016.
- 2016 Coauthor of the **best presented paper at [ICRAI2016]** - 2nd International Conference on Robotics and Artificial Intelligence, Los Angeles, USA, 2016.
- 2015 Ernst Mach Stipendium - Weltweit / **Ernst Mach grant – worldwide** - for the academic year 2015/16. OeAD-GmbH/ICM on behalf of and financed by the Austrian Federal Ministry of Science, Research and Economy (BMWF) and the EU.
- 2013 **Scholarship of the World University Service (WUS) Austria:** "One-Month Visit to Austrian Universities" -2013/2014. University of Graz, Österreichische Austauschdienst Gesellschaft - OeAD-GmbH Austrian Federal Ministry of Science and Research (BMWF), 2013 (1 month, June 2013).
- 2013 **Scholarship of the Scholarship Foundation of the Republic of Austria for Undergraduates, Graduates and Postgraduates.** Austrian Agency for International Cooperation in Education and Research (OeAD-GmbH), Centre for International Cooperation & Mobility (ICM), 2013 (1 month, September 2013).
- 2013 **DAAD language scholarship** - Deutscher Akademischer Austausch Dienst - STIPENDIENURKUNDE - ein Stipendium zur wissenschaftlichen Aus-und Fortbildung in Deutschland - Deutschkurse in Deutschland - DiD Deutsch Institut Worldwide GmbH – Berlin, 2013 (2 months – July/August 2013).
- 2012 **DAAD research scholarship** - Deutscher Akademischer Austausch Dienst DAAD - STIPENDIENURKUNDE - ein Stipendium zur wissenschaftlichen Aus-und Fortbildung in Deutschland, 2012 (5 months).

PROJECTS

(International and national funding)

Research Projects Supported by Ministry of Education, Science and Technological Development:

- 2017-2019 „Ultimate CCA - OAP Manufacturing System“, Collaborative program between the research and private sectors of the Innovation Fund. Title: Integrated System for Orthopedic Aids Production, 2017-2019. Grant's holder: Otto Bock Sava, Kragujevac.
- 2011-2019 Research Assistant and Scientific Associate, “Application of Biomedical Engineering in Preclinical and Clinical Practice”, Integral (Multidisciplinary) project, Ministry of Education, Science and Technological Development, Republic of Serbia, Grant III-41007, Researcher (Application of CAD/CAE technologies in medicine and biomechanics, 3D visualization and reconstruction of anatomical structures).
- 2008-2010 Research Assistant, Ontological Modeling in Bioengineering, Ministry of Education, Science and Technological Development, Republic of Serbia, Grant TR-12002, Researcher (Application of ICT and ontologies in spinal deformities).

Research Projects Supported by the European funds:

- 2021-2015 “IDIAG 4D Spine: A new low cost. High frequency 3D body scanner for clinical analysis and monitoring of spine pathologies and posture”, 47195.1 IP-LS - Innosuisse – Swiss Innovation Agency, IDIAG AG, ETH Zurich and BFH-TI. 2021-2025.
- 2020-2022 ScolioSIM: “From Skin to Skeleton: Revolutionary Contactless and Non-Ionizing 3D Digital Diagnosis and Monitoring of Spinal Disorders in Adolescents”, Marie Skłodowska-Curie Individual Fellowship H2020-MSCA-IF-2019, ScolioSIM - 892729. <https://cordis.europa.eu/project/id/892729>, 2020-2022.
- 2017-2018 Scientific Associate, UPB – GEX 2017, “Excellence Research Grants” Program, Ctr.No.57/25.09.2017: Pompe Magnetice Compozite (Magnetic driven pumps with composite components), University Politehnica of Bucharest, Rukovodilac, Dr.,-Ing. Ionut Ghionea, 2017-2018, (Application of CAD/CAM/CAE technologies in industry – new design of micro magnetic pumps).
- 2012-2016 Research Assistant: TEMPUS PROJECT, Studies in Bioengineering and Medical Informatics - BioEMIS, 530423-TEMPUS-1-2012-1-UK-TEMPUS-JPCR - EU: University of Birmingham (UK) – coordinator/grant holder, (Research and administration).

**Teaching, invited talks, and supervision
at home university and abroad**

Courses:

▪ **Faculty of Engineering, University of Kragujevac, Serbia**

- 2008-2009 CAD/CAM technologies (PG),
- 2008-2010 Engineering Drawings and Computer Graphics (UG),
- 2009-2015 Machine Design (UG),
- 2008-2011 Engineering CAD tools 2 (PG),
- 2009-2015 Engineering CAD tools 1 (UG),
- 2011-2015 CAD/CAM/CAE 1 (UG),
- 2011-2016 CAD/CAM/CAE 2 (PG).

▪ **Polytechnic Institute of Bari (PoliBa), Italy**

- 2011&2017 Virtual Simulations and Prototyping, 2010/2011, 2016/2017 (PG),
- 2015- Course Digital mock up and simulation (PG).

- **Swiss Federal Institute of Technology – ETH Zurich, Switzerland**
 - 2018 Scientific Writing, Reporting and Communication, in English, 376-1660-00L, MSc in Health Science and Technology, ETH Zurich Spring 2018, 2017/2018 (PG),
 - 2021- Clinical Biomechanics (PG).
- **Heilbronn University of Applied Sciences, Heilbronn, Germany**
 - 2020- Innovative interaction technologies (INIAT) (UG),
 - 2021- Requirements and Usability Engineering (RU&E) (PG).
- **Faculty of Technical Sciences, University of Kragujevac, Serbia**
 - 2020- Application of Augmented Reality in Industry and Medicine (**Doctoral Studies**).

Invited talks/workshops:

- **Presenter/Organizer:**
 - 27/06/2019 **S. Ćuković:** Virtual Design Analysis and Testing for Medical Device Design Using CAD, Singapore University of Technology and Design - SUTD, Singapore, (**Invited guest lecture**).
 - 09/04/2018 **S. Ćuković:** Rasterstereography 2.0 - From Surface to the Inside: An Update on Non-Ionizing Measurement in Patients with Adolescent Idiopathic Scoliosis (AIS), University Children's Clinic in Basel, UKBB's Paediatric Orthopaedic Research Day, Basel, Switzerland, (**Invited lecture**).
 - 29/03/2018 **S. Ćuković:** Non-Ionizing Three-Dimensional Estimation of Axial Vertebral Rotations in Adolescents Suffering from Idiopathic Scoliosis, 15th International Symposium on Computer Methods in Biomechanics and Biomedical Engineering – CMBBE2018, Lisbon, Portugal. (**Invited talk – Special session**).
 - 13/07/2016 **S. Ćuković:** From Generic to the Patient Specific 3d Model of the Spine in Case of Adolescent Idiopathic Scoliosis (AIS), 22nd Congress of the European Society of Biomechanics, Lyon, France, (**Invited talk – Special session; Mimics Innovation Award 2016 – EMEA regional award for the cutting – edge results in PhD research**).
 - 2011 MSc workshop “PLM system CATIA: Solutions for CAD/CAM” Polytechnic University of Bari, Department of Mechanics, Mathematics & Management, Bari, Italy. (3 weeks, 2011).
 - 2017 BSc workshop in Taranto: “CSVP - Computer Simulations and Virtual Prototyping”, PoliBa, (3 months, 2017).
 - 2017 MSc workshop in Bari: “Advanced Surface Modeling for a Product Design”, PoliBa, Department of Mechanics, Mathematics & Management, Bari, Italy. (3 months, 2017).
- **Attender:**
 - 2018 Symposium on 3D Printing for Life Sciences, University Hospital Basel, Zentrum für Lehre und Forschung, 27/06/2018, Basel, Switzerland.
 - 2018 AO Foundation, AO Research Institute Davos, Lab Networking Event: Biomaterials in prevention and Treatment of Orthopedic Device-Related Infections, 20/04/2018, Davos Switzerland.
 - 2018 Applicants Training for H2020 projects, by Swiss NCPs & EURResearch Network Office, 26/07/2018, ETH, Zurich, Switzerland.
 - 2018 Workshop on Virtual Orthopedics - Digital Solutions to New Implants and Prostheses with Simpleware and 3DS Simulia. Synopsys, 06/06/2018, Zurich, Switzerland.

Supervision:

▪ **PhD Students:**

- Martin Bertsch; 2021 – present (**ETH**),
- Mirko Keiser; 2021 – present (**ETH**).

▪ **PG Students:**

- Kirstin Krüger; 2020 – present (**FHH**),
- Andreja Kostić, 331/2013, Master Thesis (in Serbian): Primena inverznog inženjerstva i troosne obrade za 3D rekonstrukciju i izradu zadnje kočione čeljusti, Defense date: -, (**UniKg**).
- Bojan Rakonjac, 30/2004, Master Thesis (in Serbian): Razvoj i primena STEP standarda u savremenim CAD sistemima, Defense date: 29.09.2016. (**UniKg**),
- Bogdan Dimitrijević, 23/2010, Master Thesis (in Serbian): Modeliranje i simulacija kretanja vilice pomoću CAD sistema, Defense date: 23.09.2013. (**UniKg**).

▪ **UG Students:**

- Andreja Kostić, 134/2009, Bachelor Thesis (in Serbian): Modeliranje tehnoloških postupaka obrade prizmatičnih delova primenom softverskog paketa CATIA V5, Defense date: 21.12.2012. (**UniKg**),
- Milan Bajić, 43/2010, Bachelor Thesis (in Serbian): Parametarsko 3D modeliranje i simulacija mehanizama, Defense date: 28.08.2013. (**UniKg**),
- Miloš Milisavljević 44/2010, Bachelor Thesis (in Serbian): 3D modeliranje i parametarska optimizacija oblika plastičnih flaša, Defense date: 28.08.2013. (**UniKg**),
- Đorđe Nešković, 50/2013, Bachelor Thesis (in Serbian): Digitalizacija režima obrade pri obradi struganjem u PLM sistemu CATIA, Defense date: 28.09.2016. (**UniKg**),
- Stefan Lazarević, 40/2013, Bachelor Thesis (in Serbian): Simulacija obrade struganjem u PLM sistemu CATIA - NC kôd za obradu rotacionih delova, Defense date: 28.09.2016.
- Aleksandar Todorović, 106/2013, Bachelor Thesis (in Serbian): 3D modeliranje tehnološkog postupka za 2½-osnu obradu, Defense date: 28.10.2016. (**UniKg**).

RESEARCH VISITS & SPECIALIZATIONS **(International research and teaching visits)**

Short term visits (chronologically):

2019	Singapore University of Technology and Design – SUTD , Engineering Product Development (EPD) Pillar, Singapore. Host: Prof. dr Subburaj Karupppasamy. 21/06-29/06/2019.
2019	Universitatea "Lucian Blaga" din Sibiu (ULBS), România . ERASMUS+ KA1 – Learning Mobility of Individuals - Staff mobility for teaching and training activities between programme and partner countries. Advisor Radu Petrus. 03/06 - 10/06/2019.
2016	Materialise Headquarters , Training and Mimics Innovation Conference, Leuven Belgium, 22-23/09/2016.
2016	University Politehnica of Bucharest , CAMIS Center. Sponsored by EEA Grants (Iceland, Lichtenstein, Norway) 30/03-05/04/2016.
2015	Islamic Azad University - IAU , International Academic City, Dubai, United Arab Emirates (27/01/2015-03/02/2015).
2014	DAAD Workshop: "Proposal Writing and International Project Management for Young Researchers", University of Belgrade, Serbia, (October 2014).

- 2014 **Tampere University of Technology - TUT**, Tampere, Finland, Training Visit - Tempus BioEMIS (03-10/03/2014).
- 2014 **University of Birmingham**, Faculty of Mechanical Engineering, Birmingham, United Kingdom. Training Visit - Tempus BioEMIS (16-22/02/2014).
- 2011 **Polytechnic of Bari**, Department of Mechanical Engineering and Management, Virtual Reality and Reality Reconstruction Lab, Bari, Italy (tutor - Prof. Dr Michele Fiorentino), July 2011. Held a seminar for the first year of master studies: "PLM system CATIA: Solutions for CAD/CAM" at Dipartimento di Ingegneria Meccanica e Gestionale (DIMEG), Politecnico di Bari, Italy in course Corso di Simulazione e Prototipazione Virtuale, 12-19/07/2011.
- 2010 The 18th International Conference on Manufacturing Systems – ICMaS, 5-6 November 2010, University POLITEHNICA of Bucharest, Romania. Held lectures: "Assembly Design in PLM System CATIA" at University POLITEHNICA of Bucharest Romania, Machines and Manufacturing Systems Department, Engineering and Management of Technological System Faculty, 12/11/2010.
- 2010 International conference CAD&APPLICATION 2010, 20/06/2010-27/06/2010. DUBAI, UNITED ARAB EMIRATES, financed by Ministry of Science and Technological Development of Serbia.
- 2009 The 6th International Conference on Advanced Manufacturing Technologies - ICAMaT2009, 8-10 October 2009., Cluj-Napoca, Romania.

Long term visits, greater than one month (chronologically):

- 2020-2022 **ETH Zurich – Swiss Federal Institute of Technology, Zürich**, Department of Health Sciences and Technology, Institut für Biomechanik, Zürich, Switzerland, Supervisor: William R. Taylor, (24 months in 2020/2022).
- 2019 Post doctorate - Digital Image Processing Laboratory at the Center for Biomedical Engineering and Physics, **Medical University of Vienna – MedUni Vienna**, Austria. Research project: "3D Morphology of the Middle Spinal Alignment in Adolescent Idiopathic Scoliosis Optically Diagnosed". 3-months 08/07/2019-20/09/2019. Prof. Dr Wolfgang Birkfellner.
- 2017-2018 **ETH Zurich - Swiss Federal Institute of Technology, Zürich**, Department of Health Sciences and Technology, Institut für Biomechanik, Zürich, Switzerland, Tutor: William R. Taylor, (12 months in 2017/2018).
- 2017 Visiting professorship (Assistant professor - Docent), **Politecnico di Bari, Department of Mechanics, Mathematics & Management**, Italy, (BSc Courses in Bari and Taranto: SPV - Corso di Simulazione e Prototipazione Virtuale, MSc Training at PoliBa: Advanced Surface Modeling for a Product Design). 3 months, 2017.
- 2016 Postdoctoral research visit - **Christian Doppler Laboratory for Medical Radiation Research for Radiation Oncology**. AKH- Allgemeines Krankenhaus der Stadt, Vienna, Austria. 2 months, 2016.
- 2013 **Vienna Medical University - MedUni**, Medizinische Physik und Biomedizinische Technik. Center of Biomedical Engineering and Physics. AKH- Allgemeines Krankenhaus der Stadt Wien, AT. Prof. Dr Wolfgang Birkfellner, 1-month 2013.
- 2013 DiD Deutsch Institut Worldwide GmbH – Berlin. DAAD ISK – IntensivSprachKurse: „Deutschkurse in Deutschland“ bis 8 Wochen - Berlin, Germany.
- 2013 **Technical University of Graz - TU Graz**, Fakultät für Elektrotechnik und Informationstechnik. Zentrum für Biomedizinische Technik. Graz, Österreich. Prof. Dr Gerhard Holzapfel. Tutor: Prof. Dr Pierce David. 01/06/2013-30/01/2013.

2012-2013 **Technical University of Munich - TUM**, Lehrstuhl für Informatikanwendungen in der Medizin & Augmented Reality, CAMPAR Lab, München, Germany. Tutors Prof. Dr Nassir Navab and Prof. Dr Slobodan Ilic, 20/08/2012 - 20/01/2013.

LIST OF PUBLICATIONS

Journals, conferences, chapters, monographs and books

Journal Papers:

- [1] Goran Devedžić, **Saša Ćuković**, Vanja Luković, Danijela Milošević, K. Subburaj, Tanja Luković, "ScolioMedIS: WEB-ORIENTED INFORMATION SYSTEM FOR IDIOPATHIC SCOLIOSIS VISUALIZATION AND MONITORING", Journal of Computer Methods and Programs in Biomedicine, Vol.108, No.2, pp. 736-749, ISSN 0169-2607, Doi 10.1016/j.cmpb.2012.04.008, 2012.
- [2] Lozica Ivanović, Goran Devedžić, **Saša Ćuković**, Nenad Mirić, "MODELING OF THE MESHING OF TROCHOIDAL PROFILES WITH CLEARANCES", Journal of Mechanical Design - ASME, Vol.134, No.4, pp. 1-9, ISSN 1050-0472, Doi DOI: 10.1115/1.4005621, 2012.
- [3] Khelifa Baizid, **Sasa Cukovic**, Jamshed Iqbal, Ali Yousnadj, Ryad Chellali, Amal Meddahi, Goran Devedzic, Ionut Ghionea, "IRoSim: INDUSTRIAL ROBOTICS SIMULATION DESIGN PLANNING AND OPTIMIZATION PLATFORM BASED ON CAD AND KNOWLEDGEWARE TECHNOLOGIES", Journal of Robotics and Computer-Integrated Manufacturing [RCIM], Vol.42, No.-, pp. 121-134, ISSN 0736-5845, Doi 10.1016/j.rcim.2016.06.003, 2016.
- [4] Vanja Luković, **Saša Ćuković**, Danijela Milošević, Goran Devedžić, "AN ONTOLOGY-BASED MODULE OF THE INFORMATION SYSTEM SCOLIOMEDIS FOR 3D DIGITAL DIAGNOSIS OF ADOLESCENT SCOLIOSIS", Journal of Computer Methods and Programs in Biomedicine, Vol.178, No.x, pp. 247-263, ISSN 0169-2607, <https://doi.org/10.1016/j.cmpb.2019.06.027>.
- [5] Devedzic Goran, Ristic Branko, Stefanovic Miladin, **Cukovic Sasa**, Lukovic Tanja, "DEVELOPMENT OF 3D PARAMETRIC MODEL OF HUMAN SPINE AND SIMULATOR FOR BIO MEDICAL ENGINEERING EDUCATION AND SCOLIOSIS SCREENING", Journal of Computer Applications in Engineering Education, Vol.20, No.3, pp. 434-444, ISSN 1061-3773, Doi 10.1002/cae.20411, 2010.
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- International Technical Committees Member 2020 2nd International IEEE Conference on Robotics and Intelligent Control (**ICRIC 2020**), Hong Kong, China, November 20-22, 2020. ICRIC 2020 is co-sponsored by IEEE and Beijing Institute of Control Robots and Intelligent Technology (BICRI).
- Scientific Committee Member – Reviewer 2021 **International Conference on Cloud Computer, IoT and Intelligence System**, April 11-12, 2021, Beijing, China.
- Scientific Committee Member – Reviewer 2021 3rd International Conference on Computer Modeling, Simulation and Algorithm (**CMSA2021**) will be held in Changsha, China during February 2-3, 2021.

- Technical Program Committee Member 2021 International Workshop on Power, Electrical and Mechanical Engineering (**IWPEME2021**) will be held on April 11-12, 2021, Beijing, China. Reviewed manuscripts P6501, P6503, P6508.

Proceeding's editor:

- Conference Co-editor 2021 4th International Conference on Applied Mathematics, Modeling and Simulation (**AMMS2021**), Guangzhou, China, September 17-18, 2021. <http://4th-amms.org/com.html>.

Springer book co-editor:

- Revolutions in **Product Design for Healthcare**, Editors: Karupppasamy Subburaj, Kamalpreet Sandhu, Sasa Cukovic. Springer Singapore, 2022.

Journal editor:

- Assistant Editor of **Computer-Aided Design and Applications** (online ISSN: 1686-4360), <http://www.cad-journal.net/editors.html>, 2019-.

Chairmanship:

- Chairman of the session "3D body technology for Sport and Fitness" at **3DBODY.TECH 2020** Conference & Expo - The 11th International Conference and Exhibition on 3D Body Scanning and Processing Technologies, 17-18 November, Online/Virtual, Ascona, Switzerland, 2020.

Organizing committees:

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**Networks in research, industry and
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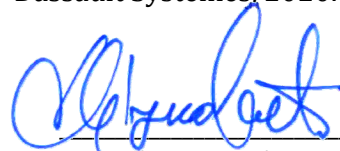
- Technical University of Munich – TUM, (Germany),
- Medical University of Vienna – MedUni, (Austria),
- Politehnica of Bucharest, (Romania),
- Technical University of Graz – TUG (Austria),
- Singapore University of Technology and Design – SUTD, (Singapore),
- Politecnico di Bari – PoliBa, (Italy),
- Materialise (Belgium),
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- Pro Management – CAD training center, Bucharest, Romania,
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- Institut de Biomécanique Humaine Georges Charpak (France),
- National University of Computer and Emerging Sciences (Pakistan),
- University of Jeddah, Department of Electrical and Electronics Engineering (Saudi Arabia),
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Memberships in national and international organizations and societies

- Member of the Union of Engineers and Technicians of Serbia – ID: 1791, from 08/2016 to present.
- Member of the European Society of Biomechanics – ESB, from 08/2016 to present.
- Member of IEEE Society from 01/2013 to present.
- Member of a Regional Center for Talented Youth KRAGUJEVAC, (until 2002).
- Member of Center for Integrated Product and Process Development and Intelligent Systems, University of Kragujevac, Serbia, (2005 - 2018).
- Member of "DAAD Alumni und Stipendiaten".
- Member of "Stipendiat/innen des OeAD".
- Member of the German Society of Biomechanics (DGfB) – 2018 Membership ID: DGfB-500.
- Member of the International Society of Biomechanics (ISB) – 2017 EDC Full Membership ID: 6293.
- Member of the Academic Association of Scientific Staff at ETH Zurich (AVETH) – 2018 Membership.
- Swiss Engineering STV – 2018 Membership ID 151990.
- Member of the Marie Curie Alumni Association Western Balkans and Swiss Chapters - (MCAA-WBC, MCAA-Swiss). ID: 0102494, 2020.
- Member of the Virtual Physiological Human Institute – VPH, 2020.
- Member of the CATIA Champion program – Dassault Systemes, 2020.

Place: **Zurich,**
Switzerland
Date: **16/03/2021**



(signature)