Gregor Kosec

Curriculum vitae

• BASIC INFO

DATE/PLACE OF BIRTH:	25.11.1980, Ljubljana, Slovenia
PERMANENT ADRESS:	Kleče 14, Ljubljana, Slovenia
MAIL:	gregor.kosec@ijs.si,
PERSONAL PAGE:	http://comms.ijs.si/~gkosec/
RESEARCH GATE PROFILE:	https://www.researchgate.net/profile/Gregor_Kosec
GOOGLE SCHOOLAR PROFILE:	http://scholar.google.si/citations?user=Obn5FmoAAAAJs

• EDUCATION

2011	**Ph.D**: University of Nova Gorica, Graduate school, thesis:: Local Meshless Method For Multi-Phase Thermo-Fluid Problems
2006	**BS.c**: University of Ljubljana, Faculty of Mathematics and Physics
1999	**Matura**: School of Electrical and Computer Engineering Ljubljana

• EMPLOYMENT

2011-	Jožef Stefan Institute :: **Parallel and distributed systems Laboratory** (research associate)
2006-2011	University of Nova Gorica :: **Laboratory for Multi-Phase Processes** (junior researcher / teaching assistant)

• VISITING RESEARCHER

2013-2014	Faculty of Computer Science and Engineering (FCSE), University "Ss. Cyril and Methodius", Skopje, Macedonia, dr. Ivica Dimitrovski and dr. Suzana Loskovska
2010, 2011	Institut Jean Lamour, Ecole des Mines de Nancy, France, Dr. Herve Combeau
2010	Faculty of Mechanical Engineering, University of Podgorica, Montenegro, Dr. Igor Vušanovič
2009	FAST, Heat & Mass Transfer and Fluid Flow group, Orsay, France, Dr. Dominique Gobin

• REWARDS

2017	State award, **The Puh Certificate of Recognition**
2014	Emerald's awards for excellence, **Engineering Outstanding Doctoral Research**
2013	Emerald's awards for excellence, **Outstanding paper** :: Solution of a low Prandtl number natural convection benchmark by a local meshless method
2010	Slovene human resources development and scholarship fund, **Reward for exceptional contribution to the sustainable development**
2009	Emerald's awards for excellence, **Highly recommended paper** :: Solution of thermo-fluid problems by collocation with local pressure correction
2009	World Federation of Scientists, **National Scholarship**

• COORDINATION AND IMPLEMENTATION OF APPLIED PROJECTS

2019	**Development of 3D printing simulation tool,** SinusPro, GmbH

2019	**Dynamic determination of DTR uncertainty,** ELES, Ltd., Electricity Transmission System Operator
2018	**DiTeR,** ELES, Ltd., Electricity Transmission System Operator
2017	**Cooling of overhead power lines in low wind regimes,** ELES, Ltd., Electricity Transmission System Operator
2016	**Dynamic Thermal Rating of Overhead Lines,** TETRACOM - Technology Transfer in Computing Systems
2015	**Analysis of de-icing possibilities by operational countermeasures**, ELES, Ltd., Electricity Transmission System Operator
2012	**Parallelization of North Atlantic Princeton Ocean Model**, Marine Biology Station, National Institute for Biology.

• PARTICIPATION IN OTHER PROJECTS

2017-2018	**EIMV;** Development and implementation of Dynamic Thermal Model for power transformers.
2016-	**FWO;** Multi-analysis of fretting fatigue using physical and virtual experiments.
2015	**TT;** System for mobile monitoring of vital physiological parameters and environmental context
2014-2015	**Oleum trading systems;** Development and implementation of algorithms for time series analysis.
2012-2014	**HiPEAC;** European Network on High Performance and Embedded Architecture and Compilation
2012-2013	**BI-ME/012¬13¬005;** Cellular and final automata for pattern recognition
2012-2013	**BI-HR/12-13-044;** Optimization of energy consumption in computer systems

• MEMBERSHIP IN SELECTED COMMITTEES:

Editorial board member of the International Conference on Parallel, Distributed, Grid and Cloud Computing for Engineering

Editorial board member of the DC VIS / Distributed Computing, Visualization and Biomedical Engineering.

Member of European Network of Excellence on High Performance and Embedded Architecture and Compilation

Member of NESUS - Network for Sustainable Ultrascale Computing

Member of European Network of IEEE

Editorial board member of the International Conference on Engineering Computational Technology

• PEDAGOGIC WORK

2019-	Supervisor in doctoral dissertation “Meshless numerical analysis in solid mechanics”, Mitja Jančič
2019-	Co-Supervisor in doctoral dissertation “Determination of emissivity model for overhead power lines”, Arin Hovanessian
2016-2018	Co-supervisor in doctoral dissertation “Three-Phase State Estimation in Power Distribution Systems”, Urban Kuhar.
2017-	Supervisor in doctoral dissertation “Solution of Navier equation with RBF-FD”, Jure Slak
2015-2017	Advising masters' students from Faculty of Mathematics and Physics at University of Ljubljana
2006-2011	Teaching assistant for Physics/Thermodynamics at University of Nova Gorica

• RESEARCH EXPERIENCES

Development and analysis of local meshless numerical method for solving partial differential equations

Generic implementation of numerical solvers and execution on different computer architectures

Numerical optimization

Laboratory experiments in geophysical fluid dynamics

• PUBLICATIONS

30 **peer reviewed articles** (12 in Q1 journals,)	**h-index** 10
36 papers in conference **proceedings**	351 **citations**
4 **book chapters**	
1 **scientific monograph** (Springer)	

• SELECTED PUBLICATIONS

KOSEC, Gregor, MAKSIĆ, Miloš, DJURICA, Vladimir. Dynamic thermal rating of power lines : model and measurements in rainy conditions. International journal of electrical power & energy systems, ISSN 0142-0615., **2017**, vol. 91, pp. 222-229.

KOSEC, Gregor. A local numerical solution of a fluid-flow problem on an irregular domain. Advances in engineering software, **2016**, ISSN 0965-9978**,** vol. 5, pp. 329-336.

KOSEC, Gregor, TROBEC, Roman, Simulation of Semiconductors Devices with a Local Numerical Approach, Engineering analysis with boundary elements , **2015**, vol. 50, pp 69-75.

KOSEC, Gregor, DEPOLLI, Matjaž, RASHKOVSKA, Aleksandra, TROBEC, Roman. Super linear speedup in a local parallel meshless solution of thermo-fluid problem. Computers & Structures, **2014**, vol. 133, pp. 30-38.

KOSEC, Gregor, ZINTERHOF, Peter. Local strong form meshless method on multiple Graphics Processing Units.Comput. model. eng. sci., **2013**, vol. 91, no. 5, pp. 377-396.

KOSEC, Gregor, ŠARLER, Božidar. Local RBF collocation method for Darcy flow. CMES, **2008**, vol. 25, pp.197

• REWIEVER FOR

Applied Mathematical Modelling	Water Resources
U.S. Department of Energy	Ain Shams Engineering Journal
Applied Mathematics And Computation	Progress in Computational Fluid Dynamics
Engineering Analysis With Boundary Elements	Scalable Computing: Practice and Experience
International Journal of Heat and Mass Transfer	International Journal of Computer Mathematics

• DESCRIPTIVE CV

Gregor Kosec graduated at University of Ljubljana, Faculty of Mathematics and Physics in 2006 and obtained Ph.D. in 2011 at University of Nova Gorica. In 2011 he became a member of Parallel and Distributed Systems Laboratory at Jožef Stefan Institute. His main research interest covers physical modelling, computational physics, meshless methods, and generic programming.

In cooperation with colleagues he published 30 peer reviewed original scientific papers, a scientific monograph in Springer**,** 4 book chapters, and presented his work at 36 international conferences. He was awarded with 4 international rewards and 2 domestic rewards, namely with reward for exceptional contribution to the sustainable development and with Puh Certificate of Recognition. He is an active reviewer for several international scientific journals and is also active in organization of international conferences.

In 2015 he led applied project “Analysis of de-icing by operational countermeasures” for ELES, Ltd., Electricity Transmission System Operator, followed by project Dynamic Thermal Rating of overhead power lines in icing conditions (DTRi) funded by FP7 TETRACOM**.** In 2018 he led projects “Cooling of overhead power lines in low wind regimes” and 2019 “Dynamic determination of DTR uncertainty” again for ELES, Ltd. From 2016 he is involved in FWO funded project "Multi-analysis of fretting fatigue using physical and virtual experiments" and in a technology transfer "System for mobile monitoring of vital physiological parameters and environmental context". He is also advising masters' and Ph.D students from Faculty of Mathematics and Physics at University of Ljubljana and