

Member of Romanian Academy President of Timișoara Branch of Romanian Academy Acad. Dan DUBINĂ, PhD

Professor Dan Dubină, full Member of Romanian Academy from 2015 (Corresponding Member from 2010), has elected President of Timișoara Branch of Romanian Academy in September 26th of 2018.

His research fields of excellence are Stability of Steel Structures, Lightweight Steel Structures, Behaviour of Steel Structures in Seismic Areas, Structural Steel Connections. Prof. Dan Dubină has used to be Head of the Department of Steel Structures and Structural Mechanics at the Politehnica University Timișoara from 2004 to 2016, and, from 2001, Director of Excellence Research Centre for Mechanics of Materials and Structural Safety (CEMSIG - <https://www.ct.upt.ro/centre/cecmsig/>).

He has published, in his research domains more than 500 scientific papers and 50 authored books and edited volumes, and has coordinated as Guest Editor of several Special Topical Issues of Thin Walled Structures and Journal of Constructional Steel Research, both edited by Elsevier, as well as in Steel Construction, Design and Research edited by Ernst & Sohn.

From 1997, Professor Dan Dubină is member of the Executive Board of European Convention for Constructional Steelwork - ECCS, and is a member of the Technical Committees TC 7 (Cold Formed Thin Walled Sheet Steel in Building), TC 8 (Stability), TC 10 (Connections), and TC 13 (Seismic Design); in 2005/2006 was President of ECCS. He has been awarded with the ECCS European Steel Design Award twice, in 2003 at Lausanne, and 2007 at Luxembourg. From 2009, Professor Dubina represents Romania in the Coal and Steel Committee, COSCO, of the Research Fund for Coal and Steel - RFCS of European Commission.

In Romania he was awarded several times, in 2004, 2005, 2007 and 2009 with the prizes of AICPS (Romanian Association of Structural Design Engineers) for high performance designed structures and *Opera Omnia Medal*.

Professor Dan Dubina has awarded in 1992 by Romanian Academy with 1990 „*Anghel Saligny*” prize, for a series of 16 scientific articles on *stability of structures*. In 2014, the same prize, was awarded for the book „*Design of cold-formed Steel Structures*”, authors D. Dubina, V. Ungureanu, R. Landolfo, ECCS, Ernst&Sohn/Wiley-Blackwell, 2012, while in 2018, the book „*Design of Steel Structures for Buildings in Seismic Areas*”, authors R. Landolfo, F.M. Mazzolani, D. Dubina, L.S. da Silva and Mario D’Aniello, published by ECCS, Ernst&Sohn/Wiley, 2017, has received the „*Henri Coanda*” prize awarded by MLNM & Romanian Academy.



In 2005 professor Dan Dubină has been awarded by Technical University of Cluj-Napoca, Romania, with *Doctor Honoris Causa* degree, while in 2012 the Pecs University of Hungary awarded to him the *Honorary Professor* degree.

Professor Dan Dubină has lectured as Keynote or Invited Lecturer, as well as invited Reporter in International Conferences, in Universities and Scientific and/or Professional Institutions in more than 30 events in around Europe, China, Korea, Brazil, South African Republic.

22 young researchers have obtained their PhD. Degree under the coordination of Professor Dan Dubină. Some of them are actually Professors in the Department of Steel Structures and Structural Mechanics. They, and other young researchers, together with their *maestro* form the so called „Timișoara School of Steel Structures and Structural Stability, well-known around the World Community of Steel Structures.

This is the person, member of Politehnica University Timișoara Community, who actually chairs the Timișoara Branch of Romanian Academy!

Romanian Academy Corresponding member of the Romanian Academy Prof. Radu-Emil PRECUP, PhD

Prof. Radu-Emil Precup was elected a corresponding member of the Romanian Academy in the General Assembly that took place on June 28, 2018. He is a member of the Information Science and Technology Section of The Romanian Academy.

Radu-Emil Precup was born in Lugoj, Romania, in 1963. He received the Dipl.Ing. (Hons.) degree in automation and computers from the "Traian Vuia" Polytechnic Institute of Timișoara, Romania, in 1987, the Diploma in mathematics from the West University of Timișoara, in 1993, and the Ph.D. degree in automatic systems from the Politehnica University Timișoara, in 1996.

From 1987 to 1991, he was with Infoservice S.A., Timisoara. He is currently with the Politehnica University Timișoara (UPT), Romania, where he became a Professor in the Department of Automation and Applied Informatics, in 2000, and he is currently a Doctoral Supervisor of automation and systems engineering. He is also an Adjunct Professor within the School of Engineering, Edith Cowan University, Joondalup, WA, Australia, and an Honorary Professor and a Member of the Doctoral School of Applied Informatics with the Óbuda University (previously named Budapest Tech Polytechnical Institution), Budapest, Hungary. He is currently the Director of the Automatic Systems Engineering Research Center with UPT. From 1999 to 2009, he held research and teaching positions with the Université de Savoie, Chambéry and Annecy, France, Budapest Tech Polytechnical Institution, Hungary, Vienna University of Technology, Austria, and Budapest University of Technology and Economics, Hungary. He has been an Editor-in-Chief of the International Journal of Artificial Intelligence since 2008 and he is also on the editorial board of several other prestigious journals including IEEE Transactions on Fuzzy Systems, IEEE Transactions on Cybernetics, Applied Soft Computing (Elsevier), Evolving Systems (Springer) and Cogent Engineering (Taylor & Francis).

He is the author or coauthor of more than 300 papers published in various scientific journals, refereed conference proceedings, and contributions to books. His research interests include mainly development and analysis of new control structures and algorithms (conventional control, fuzzy control, data-driven control, sliding mode control, neuro-fuzzy control, etc.), theory and applications of soft computing, computer-aided design of control systems, modeling, optimization (including nature-inspired algorithms), and applications to mechatronics systems (including automotive systems and mobile robots), embedded systems, control of power plants, servo systems, electrical driving systems. His current h-index is 42 (Google Scholar), 36 (Scopus) and 34 (Clarivate Analytics Web of Science) as of April 2019.



Prof. Precup is a corresponding member of the Romanian Academy, a member of the Technical Committee (TC) on Virtual Systems in Measurements of the Institute of Electrical and Electronics Engineers (IEEE) Instrumentation & Measurement Society, the Task Force on Autonomous Learning Systems within the Neural Networks TC of the IEEE Computational Intelligence Society, the Subcommittee on Computational Intelligence as part of the TC on Control, Robotics and Mechatronics in the IEEE Industrial Electronics Society, the Task Force on Educational Aspects of Standards of Computational Intelligence as part of the TC on Standards in the IEEE Computational Intelligence Society, the TCs on Computational Cybernetics and Cyber-Medical Systems of the IEEE Systems, Man, and Cybernetics Society, the International Federation of Automatic Control (IFAC) Technical Committee on Computational Intelligence in Control (previously named Cognition and Control), the Working Group WG 12.9 on Computational Intelligence of the Technical Committee TC12 on Artificial Intelligence of the International Federation for Information Processing (IFIP), the European Society for Fuzzy Logic and Technology (EUSFLAT), the Hungarian Fuzzy Association, and the Romanian Society of Control Engineering and Technical Informatics.

He was the recipient of the Elsevier Scopus Award for Excellence in Global Contribution (2017), the "Grigore Moisil" Prize from the Romanian Academy, two times, in 2005 and 2016, for his contribution on fuzzy control and the optimization of fuzzy systems, the Spiru Haret Award from the National Grand Lodge of Romania in partnership with the Romanian Academy in 2016 for education, environment and IT and many other awards at various conferences.

Romanian Academy Corresponding member of the Romanian Academy Prof. Liviu MARȘAVINA, PhD

The General Assembly of the Romanian Academy elected by secret vote on 21st November 2018 four titular members and five corresponding members. Prof Liviu Marșavina from Politehnica University Timișoara was among the corresponding members (<http://www.acad.ro/bdar/armembriC.php>).

Prof Liviu Marșavina has outstanding contributions in Strength of Materials, Fracture Mechanics and Fatigue, Material Testing, Experimental and Numerical Stress Analysis. He is recognized at national and international level as an expert in experimental determination of fracture mechanics parameters, numerical simulation of crack propagation and development of modern methods for estimating integrity and durability of components and structures.

His research activity was performed on international research projects at Loughborough University (UK), University of Sheffield (UK), Ghent University (Belgium), Lublin University of Technology (Poland), Slovak Academy of Science (Slovakia), Università degli Studi di Cagliari (Italy), national and international grants and research contracts with multinational companies like Rolls Royce (UK), Adidas (Germany), Continental Automotive (Romania), TRW Automotive (Romania).

Prof. Marșavina was invited lecturer at important scientific events like: the workshop *Best Practices for Advanced Fracture Assessment* organized by European Commission – Joint Research Center, Institute for Energy, Petten, (Netherlands) 2004, at the *9th International Fracture Mechanics Summer School*, Varna (Bulgaria) 2005, at two advanced courses organized by CISM Udine (Italy) in 2009 and 2013, at the workshop *Frontiers on structural dynamics* at Beijing University of Civil Engineering and Architecture (China) 2017, symposium *7th Israelian Structural Integrity Group* at Tel Aviv University (Israel) 2018.

Prof. Marșavina is member in the Editorial board of *Fatigue and Fracture of Engineering materials and Structures* (Wiley) from 2016, *Frattura ed Integrità Strutturale* (Italian Group of Fracture) from 2014, *International Journal of Structural Integrity* (Emerald) from 2009, *Proceedings of the Romanian, Series A: Mathematics, Physics, Technical Sciences, Information Science* (Romanian Academy) from 2018. Also, he was editor of special issues for journals: *Fatigue and Fracture of Engineering materials and Structures*, Virtual Issue – *Mixed Mode Loading: Recent Developments* (2016); *Advances in Materials Science and Engineering*, Special



Issue – *Brittle or Quasi-Brittle Fracture of Engineering Materials* (2016); *Theoretical and Applied Fracture Mechanics*, Special Issue *Mixed Mode Fracture* (2017); *Materials*, Special Issue – *Advances in Metal Foams* (2018–2019). Prof. Marsavina is reviewer for more than 20 international journals.

As an international recognition prof. Marșavina is from 2014 co-chairman of the Technical Committee **TC13 – Education of European Structural Integrity Society** (ESIS) and representative of Romania in ESIS from 2006. At the 22nd European Conference on Fracture, held in Belgrade 26–31 August 2018, he was elected Vice President of *European Structural Integrity Society*.

Romanian Academy The „Aurel Vlaicu” Prize awarded in 2018 Remus-Daniel ENE, PhD, Vasile MARINCA, PhD & Valentin-Bogdan MARINCA, PhD

The Romanian Academy “Aurel Vlaicu” prize for Technical Sciences for 2016 was awarded to the group of papers “Optimal approximate analytical methods in the dynamic study of non-Newtonian fluids”, authors Ene Remus-Daniel, Marınca Vasile and Marınca Bogdan, affiliated to University Politehnica of Timisoara. The award ceremony took place in the high hall for science and culture at the General Assembly of the Romanian Academy on 13th December 2018.

The prize regards the papers:

- Remus-Daniel Ene, Vasile Marınca, and Valentin Bogdan Marınca, Viscous flow and heat transfer over an unsteady stretching surface, *Open Phys.*, 2016, vol. 14, pp. 371–381, DOI 10.1515/phys-2016-0042.
- Remus-Daniel Ene, Vasile Marınca, and Valentin Bogdan Marınca, Thin film flow of an Oldroyd 6-constant fluid over a moving belt: an analytic approximate solution, *Open Phys.*, 2016, vol. 14, pag. 44–64, DOI 10.1515/phys-2016-0005.
- Remus-Daniel Ene, Vasile Marınca, and Valentin Bogdan Marınca, Analytic Approximate Solutions to the Boundary Layer Flow Equation over a Stretching Wall with Partial Slip at the Boundary, *PLOS ONE*, 2016, vol. 11(3), 24 pages, DOI:10.1371/journal.pone.0149334.

These articles apply the methods of Optimal Homotopy Asymptotic Method (OHAM) and Optimal Homotopy Perturbation Method (OHPM) for finding the approximate analytical solutions for dynamical nonlinear systems from fluid mechanics. The important applications of this field describe heat and mass transfer, for example: microchip production, the linings of mammalian lungs, crystal growing, extrusion of plastic sheet, drawing plastic films, paper production, performance of lubricants, continuous casting, polymer extrusion, manufacture and drawing of plastics and rubber sheets, wire drawing and so on.

The aforementioned methods present some advantages compared to the classical one, among them we recall: there are not necessary small or large parameters in the equations or in the boundary/initial conditions, the construction is based on determination of the linear operators and of the auxiliary functions, which are combined in a convenient way to optimally control the convergence of the approximate solutions. The efficiency of the proposed procedure is proven, while an accurate solution is explicitly analytically obtained in an iterative way after one iteration only. The validity of this method is demonstrated by comparing the results obtained with the numerical solution.

Prof. dr. Vasile Marınca is member of the Center for Advanced and Fundamental Technical Research, Romanian Academy, Timișoara Branch. His field of research is Applied Mathematics in engineering.

Dr. Remus-Daniel Ene is Assistant Professor within the Department of Mathematics, UPT since 2002. He is the author of 26 ISI papers, in the field of Applied Mathematics.

Dr. Bogdan Marınca is Associate Professor within the Department of Applied Electronics, UPT. He works in the field of Applied Electronics.



Romanian Academy The „Anghel Saligny“ Prize awarded in 2018 Prof. Florea DINU, PhD & Assist. Prof. Ioan MĂRGINEAN, PhD

“Anghel Saligny” Award of Romanian Academy to Prof. Florea DINU, PhD and Assist. Prof. Ioan Marginean, PhD for a series of five scientific papers entitled „Robustness of steel building structures”.

The list of articles awarded by Romanian Academy is based on the research carried out within the framework of the national research project PN II 55/2012 “Structural conception and collapse control performance based design of multistory structures under accidental actions” CODEC, funded by UEFISCDI and carried out during the period 2012–2016, project director Florea Dinu (www.ct.upt.ro/centre/cemsig/codec.htm). Ioan Mărginean was member of the research team for the whole period of the project. CODEC research project supported also Mr. Ioan Mărginean in obtaining, in 2017, his PhD degree with the thesis “Behavior of beam-to-column connections subjected to high axial loads”, coordinator Acad. Dan Dubina.

The series of papers had a significant impact on the research in the field of robustness:

- 43 citations in the scientific literature, including 29 in ISI indexed journals and 14 in Scopus indexed journals;
- Preparation and submission of project proposals in national and international competitions (UEFISCDI; H2020; COST ESF; RFCS);
- Support for MSc, PhD and Habilitation theses;
- Two of the papers were included in a review of the most important contributions in the research and practice on progressive collapse and robustness of building structures in the 21st century (Adam J.M., Parisi F., Sagaseta J., Lu XZ, Research and practice on progressive collapse and robustness of building structures in the 21st century, *Engineering Structures*, 173, pp. 122–149, October 2018).



Romanian Academy

The „Gheorghe Ionescu-Șișești” Prize awarded in 2018

Assoc. Prof. Daniel HĂDĂRUGĂ, PhD & Assist. Prof. Gerlinde RUSU, PhD

“ROMANIAN ACADEMY AWARDS - 2016” ceremony was held on December 13, 2018, in Bucharest, during the General Meeting of the Romanian Academy. Seventy awards belonging to fourteen sections have been awarded for the top scientifically publications in the year 2016.

Two of the “Gheorghe Ionescu-Șișești” Awards, “Agricultural and Forestry Sciences” section, has been awarded for the scientifically contributions entitled “Differentiation of the rye and wheat flour as well as mixtures by using the kinetics of Karl Fischer water titration” and “Nanoencapsulation competitiveness of omega-3 fatty acids and correlations of thermal analysis and Karl Fisher water titration for European anchovy (*Engraulis encrasicolus* L) oil / β -cyclodextrin complexes”.

These studies were published in highly esteemed top journals Food Chemistry (Elsevier) 2016, 195, 49-55, and LWT - Food Science and Technology (Elsevier) 2016, 68, 135-144 (quartile Q1 in WoS), having authors from the Politehnica University Timișoara Assoc. Prof. Daniel Hădărugă, PhD and Assist. Prof. Gerlinde Rusu, PhD from the Department of Applied Chemistry, Organic and Natural Compounds Engineering (CAICON), Faculty of Industrial Chemistry and Environmental Engineering.

Researches were conducted in collaboration with researchers from the country and abroad (Heinz-Dieter Isengard - University of Hohenheim, Germany, Mustafa Ünlüsayın - Akdeniz University, Turkey, as well as Nicoleta Hădărugă, Corina Costescu, Laura Corpaș - University of Agricultural Sciences and Veterinary Medicine “King Mihai I of Romania” of Timișoara, Virgil Păunescu and Alexandra Gruia - University of Medicine and Pharmacy of Timișoara). They are approaching theoretical and applicative subjects in the food chemistry and supramolecular chemistry fields. Researches have a high level of multidisciplinary, dealing the influence of cereal product composition on the bonding of water molecules into the food matrix from the kinetic point of view. On the other hand, the protection and stability of omega-3 fatty acid-based triglycerides, contained by fish oils, have been evaluated by cyclodextrin nanoencapsulation. Both studies have great impact on the quality and stability of these products with food, pharmaceutical or cosmetic applications, and further to the human health.

These studies had significant impact in the scientific world, being cited in highly esteemed journals from the organic chemistry and food chemistry fields from Elsevier, Springer and Beilstein Institute (e.g., Food Chemistry - ISI 4.529, Food and Bioprocess Technology - ISI 2.998, International Journal of Thermal Sciences - ISI 3.361 and Beilstein Journal of Organic Chemistry - ISI 2.330). w



1. Hădărugă, D.I.; Costescu, C.I.; Corpaș, L.; Hădărugă, N.G.; Isengard, H.-D., Differentiation of rye and wheat flour as well as mixtures by using the kinetics of Karl Fischer water titration, Food Chemistry 2016, 195, 49-55, doi: 10.1016/j.foodchem.2015.08.124 (ISI 4.529 / Q1);
2. Ünlüsayın, M.; Hădărugă, N.G.; Rusu, G.; Gruia, A.T.; Păunescu, V.; Hădărugă, D.I., Nano-encapsulation competitiveness of omega-3 fatty acids and correlations of thermal analysis and Karl Fischer water titration for European anchovy (*Engraulis encrasicolus* L.) oil / β -cyclodextrin complexes, LWT – Food Science and Technology 2016, 68, 135-144, doi: 10.1016/j.lwt.2015.12.017 (ISI 2.329 / Q1).

Romanian Academy & the Romanian National Committee of the World Energy Council „Mircea Dimitrie Cazacu” awards for the best doctoral thesis - Second prize Mihail Reinhold WÄCHTER , PhD

The 14th WEC CENTRAL & EASTERN EUROPE REGIONAL ENERGY FORUM - FOREN 2018 with the main theme: „Central and Eastern Europe in the New Era of Energy Transition: Challenges, Investment Opportunity and Technological Innovations” will be held in Vox Maris Grand Resort, Costinesti, Romania, during 10-14 June 2018.

The event is organized by the WEC Romanian National Committee, under the auspices of the Government of Romania, under the leadership of the World Energy Council (WEC) and with the support of WEC Member Committees in Central and Eastern Europe.

Award of the Romanian Academy for a UPT graduate

A graduate of Politehnica University Timișoara has received an important award from the Romanian Academy and the Romanian National Committee of the World Energy Council for the results of his research on waste recovery.

Thus, following the analysis of the national applications for the “Mircea Dimitrie Cazacu” awards for the best doctoral thesis in the field of renewable energy sources, the Romanian Academy, through the Renewable Energy Commission of the Technical Sciences Section, and the Romanian National Committee of the World Energy Council decided to award the second prize to Dr. Mihail Reinhold Wächter for the thesis “Theoretical and Experimental Research on Methods of Energy Recovery from Municipal Solid Wastes”, elaborated under coordination of Prof. Ioana Ionel, PhD, and validated with the excellent score, namely Summa cum laude. Note that the first place was not awarded.

At European level, considerable efforts have been made over the last decades to find the most efficient and sustainable solutions for the management of household waste and, implicitly, waste resulting from its incineration in an environmentally friendly way with minimal impact on the environment.

Mr. Mihail Reinhold Wächter is a graduate of the Thermal Machines and Equipment specialization and of the Master of Energy and Thermal Engineering and Transport Vehicles of the Faculty of Mechanical Engineering of Politehnica University Timișoara, currently having a 10 year professional experience in design (ISPE Timișoara) and process engineering (SC COLTERM SA Timișoara) and thus a great ability to put into practice the engineering knowledge acquired during his career. He is also active in the UPT, being a director of a nationally-funded project, also in the field of environmentally friendly environmental protection research: “Innovative method for landfilling of municipal solid Waste Incineration Residues by STABilization/solidification into coal fly ash rock matrix resulted from dense slurry technology”, acronym: WIR-STAB-01, Project code: PN-III-P1-1.1-PD-2016-1093, Contract no.93 / 2018.



European Federation for Medical Informatics (EFMI) EFMI President for the term 2018 - 2020 Prof. Lăcrămioara STOICU-TIVADAR, PhD

In April 2018, during the MIE 2018 conference meeting in Gothenburg, Sweden, the EFMI Council elected the EFMI President for the term 2018-2020 as Lăcrămioara Stoicu-Tivadar, Professor at the Faculty of Automation and Computers from Politehnica University Timișoara.

The European Federation for Medical Informatics (EFMI) is the leading non-profit organization in biomedical and health informatics in Europe. The Federation comprises 30 national societies and includes an exceptional network of experts and stakeholders in healthcare, IT and its societal dimensions; to this national member we add 14 topic Working Groups ranging from human factors, to security and natural language processing and 10 Institutional members contributing to the industrial view of the association. The national members are Full Members. The main bodies of EFMI are the Council and the Executive Board. The Council gathers one representative from each Full Member, the Members of the Executive Board, the Chairpersons of the Working Groups, the Honorary Fellows and two representatives of the Institutional Members. The Council (only the Full members) elects an Executive Board consisting of President, Vice-President, Past President, Secretary, Treasurer, and several Officers.

In April 2018, during the MIE 2018 conference meeting in Gothenburg, Sweden, the EFMI Council elected - with 21 votes and 1 blanc - the EFMI President for the term 2018-2020 as Lăcrămioara Stoicu-Tivadar, Professor at the Faculty of Automation and Computers from Politehnica University Timișoara. Prof. Stoicu-Tivadar is the second president elected directly by Council vote and the first woman that took the new challenge and succeeded. The ceremony of investing the new EFMI President took place on October 16, 2018, at the International Conference MIE-STC 2018 held in Zagreb, Croatia.

The 3 directions on which Prof. Lăcrămioara Stoicu-Tivadar is working to develop the EFMI community are a closer cooperation with the medical professional associations (a project with EUSEM – European Society for Emergency Medicine was initiated immediately after taking the term), emphasizing the importance of young scientists in EFMI – creating a new position in the EFMI Board supporting this direction, and continuing the EFMI participation in European projects. Prof. Stoicu-Tivadar participates constantly in MIE and STC EFMI organized conferences, with papers, keynotes and as chair/member of Science Program Committees. She is President of the Romanian Society of Medical informatics and Senior IEEE member.



Prof. Lăcrămioara Stoicu-Tivadar was involved in national (MedINS/ MediNET, TELEASIS, SIMIMED) and international projects (CASA, Trillium Bridge), industry supported projects and presentations (IBM Award 2007, keynote in Milano during IBM Academic Days 2014) and has an intense and consistent research and educational activity related to digital healthcare. She initiated (2009) and coordinates the activity of the Healthcare Information System master's degree at the Faculty of Automation and Computers.

European recognition of the value of the Politehnica University Timișoara professors is always a reason for pride confirming the quality and innovative work promoted in UPT.

European Structural Integrity Society (ESIS) ESIS Vice President Prof. Liviu MARȘAVINA, PhD

At the 22nd European Conference on Fracture, held in Belgrade, Serbia between 26 – 31 August 2018 was elected the new Vice President Prof. Liviu Marșavina from Politehnica University Timișoara (Romania).

European Structural Integrity Society (ESIS) is a non-profit organisation run by the Executive Committee that is instructed by and responsible to a Council of delegates representing each European Country affiliated to the Society, as well as the Technical Committee chair – persons. ESIS has 17 Technical Committees and 25 affiliated countries (including Romania).

Structural Integrity refers to the safe operation of engineering components, structures and materials, and addresses the science and technology used to assess the margin between safe operation and failure.

The aim of ESIS is to develop and extend knowledge in all aspects of Structural Integrity and disseminating that knowledge world wide with the objective of improving the safety and performance of engineering equipment, individual components and structures.

Specifically:

- to foster research and collaboration into the prevention of failure of engineering materials, components and structures under mechanical loadings and associated phenomena.
- to encourage interdisciplinary research into the physical behaviour of engineering components, materials and structures.
- to develop new testing methods, numerical methods, and engineering estimation methods for structural integrity assessment.
- to improve engineering designs.
- to improve manufacturing, inspection and maintenance procedures.
- to develop methods for interpretation of material property data, probabilistic assessment and tools for failure prevention and management.
- to disseminate knowledge, by means of scientific publications, procedure documents, and referring developments to national and international code-making bodies where relevant.
- to educate young engineers and scientists in structural integrity matters.

ESIS is associated with Elsevier for publishing four well-recognized journals: *Engineering Fracture Mechanics*, *International Journal of Fatigue*, *Theoretical and Applied Fracture Mechanics* and *Engineering Failure Analysis*, as well for publishing the *Proceedia Structural Integrity* with contributions from organized meetings.

Executive Committee headed by President and two Vice Presidents assures the management of ESIS. The Council represented by the President, who acts as Chairman of Council, the two Vice Presidents, two delegates, one of whom is a voting member, from each of the National Groups of affiliated European countries, the Chairperson of each Technical Committee and the Secretary, who acts as Secretary to the Council elects them.

At the 22nd European Conference on Fracture, held in Belgrade, Serbia between 26 – 31 August 2018 the new President Prof. Francesco Iacoviello from Università di Cassino e del Lazio Meridionale (Italy) and Vice Presidents Prof. Alexander Sedmak from University of Belgrade (Serbia) and Prof. Liviu Marșavina from Politehnica University Timișoara (Romania) were elected for a four year mandate.

Prof. Liviu Marșavina had an important contribution in the affiliation of Romanian Association of Fracture Mechanics (ARMR) to ESIS. Since 2006 he participated at all European Conferences on Fracture organized by ESIS in Alexandropolis (Greece) in 2006, Brno (Czech Republic) in 2008, Dresden (Germany) 2010, Kazan (Russia) 2012, Trondheim (Norway) 2014, Catania (Italy) 2016 and Belgrad (Serbia) in 2018. From 2014 Prof. Marșavina acted as Co - Chair of the ESIS Technical Committee TC13: Education and Training.



International Exhibition of Inventions of Geneva 2018 Diploma & Silver Medal Ștefan PAVEL, PhD

The event *International Exhibition of Inventions of Geneva* took place in Switzerland, in the period of 11-15 april, 2018, where the following invention was presented: PORTABLE DEVICE FOR PAIN SIGNALING, OR DISCOMFORT DURING THE DENTAL PROCEDURES.

The awards won at this event are as follows:

- Diploma of the *International Exhibition of Inventions of Geneva*, with a silver medal;
- The international innovation award of the Polish Academy of Sciences, *Institute of Genetics and Animal Breeding from Poland* with diploma and medal.

The author of the invention presented at this event carry out their professional activity in Politehnica University Timișoara, at *Research Institute for Renewable Energy*.

The invention relates to a portable electrical device for signaling pain, sensitivity or discomfort during a dental medical act.

The advantages of this invention are as follows:

- The device is easily maneuverable and attached to the dental chair;
- Optionally providing a luminous, acoustic and (or) voice signaling of a patient's pain or discomfort during dental procedures;
- Provides safety in operation by using low-voltage currents and simplicity of electrical controls;;
- Ensures an almost instantaneous alert when the patient is in pain or discomfort.



18th IEEE International Conference on Advanced Learning Technologies - ICALT2018

Best Paper Award

Diana ANDONE, PhD, Silviu VERT, PhD, Mark FRYDENBERG, PhD & Radu VASIU, PhD

The team consisting of Diana Andone, Silviu Vert, Mark Frydenberg and Radu VasIU has been awarded with "Best Paper Award" for the paper "Open Virtual Reality Project to Improve Students' Skills" presented at the 18th IEEE International Conference on Advanced Learning Technologies ICALT2018, which took place in Mumbai, India in July 9-13, 2018. (<http://www.ieee-icalt.org>)

ICALT is an annual international conference on *Advanced Learning Technologies* and *Technology-enhanced Learning* organized by the IEEE Computer Society and the IEEE Technical Committee on Learning Technology. After its kick-off as IWALT in Palmerston North, New Zealand (2000), ICALT has been held in Madison, USA (2001), Kazan, Russia (2002), Athens, Greece (2003), Joensuu, Finland (2004), Kaohsiung, Taiwan (2005), Kerkade, The Netherlands (2006), Niigata, Japan (2007), Santander, Spain (2008), Riga, Latvia (2009), Sousse, Tunisia (2010), Athens, Georgia, USA (2011), Rome, Italy (2012), Beijing, China (2013), Athens, Greece (2014), Hualien, Taiwan (2015), Austin, Texas, USA (2016) and Timisoara, Romania (2017).

The 18th IEEE International Conference on Advanced Learning Technologies (ICALT2018) was organized at the Indian Institute of Technology Bombay (IIT Bombay), Mumbai, India.

There were fourteen tracks in ICALT 2018:

Track 1. Technologies for Open Learning and Education (i-OPENLearn), **Diana Andone**, Politehnica University Timișoara, [Co-ordinator]

Track 2. Adaptive and Personalized Technology-Enhanced Learning (APTel)

Track 3. Wireless, Mobile, Pervasive and Ubiquitous Technologies for Learning (WMUTE)

Track 4. Digital Game and Intelligent Toy Enhanced Learning (DIGITEL)

Track 5. Computer Supported Collaborative Learning (CSCL)

Track 6. Big Data in Education and Learning Analytics (BDELA)

Track 7. Technology-Enhanced Science, Technology, Engineering and Math Education (TeSTEM)

Track 8. Technology Enhanced Language Learning (TELL)

Track 9. Technology Enabled Learning of Thinking Skills (TELoTS)

Track 10. Technology Supported Education for People with Disabilities (TeDISABLE)

Track 11. Artificial Intelligence and Smart Learning Environments (AISLE)

Track 12. Augmented Reality and Virtual Worlds in Education and Training (ARWET)

Track 13. Motivational and Affective Aspects in Technology-enhanced Learning (MA-TEL)

Track 14. Applications of Semantic Web technologies for Learning (SW-EL)

The anticipated types of submissions for all tracks were:

- Full paper: 5 pages
- Short paper: 3 pages
- Posters: 2 pages



1st International Conference on Computational Methods and Applications in Engineering Best Paper Award Silviu VERT, PhD & Diana ANDONE, PhD

The team consisting of Silviu Vert and Diana Andone has been awarded with “Best Paper Award” for the paper “Virtual Reality Authoring Tools for Educators” presented at the 1st International Conference on Computational Methods and Applications in Engineering which took place in Timișoara, Romania in May 23 - 26, 2018. (<http://iccmæ.elearning.upt.ro/>)

The objectives of this conference are to enhance interdisciplinary international work between scientists and engineers in USA and Romania. In addition to plenary lectures, there will be sessions for mini-symposia and contributed talks.

The main topics are:

Track 1: Applied/Computational Mathematics

- Fractional Calculus
- Image Processing
- Mathematical Biology
- Optimal Control
- Differential Equations and their Numerical Methods

Track 2: Computational Methods in Mechanical Engineering

- Applied mathematics and Mechanics
- Applied Thermodynamics
- Applied Analytical and Numerical Material Modelling
- Computational Fluid Dynamics

Track 3: Applications in Information Technologies

- Open Data Applications
- Applied Statistics and Big Data Analytics
- Smart Cities Applications
- Integrated Infrastructures and Processes for Smart Cities
- eScience and the Information Society
- Virtual and Augmented Reality



MakeLearn & TIIM 2018 International Scientific Conference

Best Paper Award

Matei TĂMĂȘILĂ, PhD, Ilie TĂUCEAN, PhD, Alin ARTENE, PhD & Claudiu ALBULESCU, PhD

The paper entitled “Financial performance in the public administration sector: comparison between Romania and Hungary” (authors Matei Tămășilă, Ilie Tăucean, Alin Artene and Claudiu Albulescu) received the distinction of “Best Paper Award”, delivered by Scientific Committee of the MakeLearn & TIIM 2018 International Scientific Conference “Integrated Economy and Society: Diversity, Creativity and Technology”, held in Naples (Italy), on 16 to 18 May 2018.

The purpose of the MakeLearn & TIIM 2018 International Conference was to share most recent developments in the fields of management, economics, technology, and education.

The work was supported by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS-UEFISCDI, project number, PN-II-RU-TE-2014-4-1760, project entitled “The impact of the economic and financial stability on investments, innovation process and entrepreneurial activity in the EU” (Director, Prof. Claudiu ALBULESCU). The paper was published in 2018 in “Management”.



International Exhibition IDEA-Expo 2018 Abony Trophy, Cup, Medals & Diplomas Ștefan PAVEL, PhD

The event "International Exhibition IDEA-Expo 2018 Abony" took place in Hungary, in the period of 24-25 March, 2018.

The prizes won at this event are the following:

- *Second place, with the trophy received from the Parliament of Hungary (represented by the member of the parliament, Volner János); Volner János országgyűlési képviselő díjai-Bujdosó Tibor (H) Abony; Dr. Stefan Pavel (RO) Temesvár; Hegedűs Fanni (H) Abony; Külföldi: ABOKOM Kft. (H) Abony;*
- *IDEA Cup and Diploma awarded to Politehnica University Timișoara;*
- *"IDEA butella Abony" Award;*
- *8 Medals with diplomas awarded by the Hungarian Inventors Association, president Nagy Zoltán, Ötlet Club 13 Egyesület elnöke, Hódmezővásárhely;*
- *Diploma for Politehnica University Timișoara, awarded by the BALKAN MANAGERS ASSOCIATION;*
- *Diploma awarded by the Inventors Association from Bačka Palanka - the Serbian Republic for the prototypes in the dental medical field.*

The authors of the inventions presented at this event carry out their professional activity in Politehnica University Timișoara, "Victor Babes" University of Medicine and Pharmacy Timișoara, and private societies.

The inventions presented, as they appear from the titles presented below, are intended for the dental medical field and make a considerable contribution to the modernization and proper development of the professional activity of the medical staff.



These are the following:

- *INSTALLATION FOR THE DECONTAMINATION OF THE RESIDUAL WATER FROM THE DENTAL UNIT, RO 129343A8, authors: Pavel Ștefan, Borza Ioan, Bratu Emanuel Adrian, Doboșiloan Silviu, Găină Paulina Ioana, Streian Felicia, Talpoș Niculescu Șerban;*
- *LIGHTING INSTALLATION FOR THE „CERAMIC CHAMBER” COMPARTMENT OF DENTAL TECHNOLOGY, RO 2013 00033, authors: Pavel Ștefan, Borza Ioan, Bratu Emanuel Adrian, Doboșiloan Silviu, Găină Paulina Ioana, Streian Felicia, Talpoș Niculescu Șerban;*
- *COMPRESSED AIR INSTALLATION FOR DENTAL UNITS, RO 2013 00050, authors: Pavel Ștefan, Borzaloan;*
- *ELECTRICAL INSTALLATION FOR THE AIR DISINFECTION DESIGNED FOR DENTAL MEDICAL UNITS, RO 2014 00031, authors: Pavel Ștefan, Tutelcă Anuța Letiția, Jifcu Deian Adrian, Lăcătușu Eugen-Florin, Adam Andrei, Vlad Daliborca Cristina, Dumitrașcu Victor, Hogeia Elena, Borza Iconia Ecaterina, Suciuc Silviu Cristian;*
- *PORTABLE DEVICE FOR AIR AND SURFACE DISINFECTION FROM CLOSED SPACES U/00045/16.07.2015, authors: Pavel Ștefan, Suciuc Silviu-Cristian*
- *PORTABLE DEVICE FOR PAIN SIGNALING, OR DISCOMFORT DURING THE DENTAL PROCEDURES, RO 2015 00055, authors: Pavel Ștefan;*
- *MOBILE INSTALLATION FOR THE SUPPORT OF THE CHILD DURING PEDIATRIC RADIOLOGY, U/00021/08.06.2016, authors: Pavel Ștefan, Popoiu Călin Marius, Mocan Marian Liviu, Doboșiloan Silviu, Șerban Dan-Andrei;*
- *ELECTRICAL LIGHTING INSTALLATION FOR DENTAL ESTHETICS, U/00018 28.04.2017, authors: Pavel Ștefan, Kremis Cristina, Mocan Marian Liviu, Doboșiloan Silviu.*



„Orizonturi Universitare” Association, Romanian Academy Timișoara Branch & Timișoara’s Local Council „Eminent Young Researcher” Award Assist. Prof. Mircea-Bogdan RĂDAC, PhD

On December 11th 2018, Assistant Professor Mircea-Bogdan Rădac, PhD from the Department of Automation and Applied Informatics of Politehnica University Timișoara, received the “Eminent Young Researcher” award from the “Orizonturi Universitare” Association, in partnership with Romanian Academy Timișoara Branch, and with the Timișoara’s Local Council.

The XXIII edition of the yearly „Eminent Student” event awards the best students and young researchers from across all city universities and took place in the „Alexandru Rogojan” amphitheatre of the Politehnica University Timișoara.

The award acknowledged Dr. Rădac’s fruitful research activity of the last ten years on the areas of Control and Systems Engineering, Artificial Intelligence and Electrical and Electronic Engineering, encompassing publication of more than 140 scientific articles in journals and conference proceedings and participation with his team members in management and research activities for research grants won by national competitions.



Orthodox Metropolis of Banat & Timis County Council 2018 „Pro Cultura Timisiensis” for a member of the Politehnica academic community Assoc. Prof. Mariana CERNICOVA-BUCĂ, PhD

In 2001 the Timiș County Council decided to award the prize “Pro Cultura Timisiensis” to artists, writers, researchers who contribute decisively to the growth of the cultural thesaurus of Banat region. Starting with 2017, the Pro Cultura Timisiensis Gala is organized by the county public authority in cooperation with the Orthodox Metropolis of Banat.

Among the 24 personalities celebrated in December 2018 one belongs to the academic community of Politehnica University Timișoara: assoc. prof. Mariana Cernicova-Bucă from the Faculty of Communication Sciences, UPT, nominated for the prize on the initiative of the Association University Horizons (Orizonturi Universitare). In the Laudatio for assoc. prof. Mariana Cernicova-Bucă it is stated that the nominee published as a single author or in co-authorship 19 books, 9 of which are dedicated to the history and culture of Timis county and Timisoara city. Out of these, the volume dedicated to the history of the region (*Din cronologia județului Timiș*) was published in 4 editions,

in enriched and revised versions. Mrs. Mariana Cernicova-Bucă is also actively engaged in the life of the country and the region and received diplomas and awards to recognize her work in publishing, research activities and public service. She chairs the Board of Communication and Public Relations at the Faculty of Communication Sciences in Politehnica University Timișoara, coordinates the communication programs at the Master level at her faculty, co-edits the *Professional Communication and Translation Studies* (PCTS) volumes and acts as chair of the scientific committee for the PCTS conference since 2013.



Politehnica University Timișoara Award for EXCELLENCE IN RESEARCH Assoc. Prof. Călin Adrian POPA, PhD

At the end of the year, Politehnica University Timișoara awarded the “Excellence in Research” prizes to young people who achieved remarkable results during the academic year 2017-2018.

Călin-Adrian Popa is an Associate Professor at the Department of Computers and Information Technology from the Faculty of Automation and Computers. His research activity is mainly focused on the field of machine learning in general, and neural networks in particular. In the years 2017-2018, he published, as the only author (with one exception), 3 papers in ISI journals in the Q1 quartile, and 1 paper in an ISI journal in the Q2 quartile, 2 of them at the famous journal *Neural Networks*, which has an impact factor of 7,19. Also, in the same period, he published, as the only author (with one exception), 14 papers at ISI conferences, 5 of them at the famous International Joint Conference on Neural Networks (IJCNN), the most

important and prestigious conference in the field of neural networks. He was the director of the project PCD-TC-2017-41, granted in the internal competition „Proiecte de Cercetare, Dezvoltare pentru Tineri Cercetători (PCD-TC)” (Projects of Research, Development for Young Researchers), organized by the Politehnica University Timișoara. Starting with the same period, as a recognition of his research activity, he was appointed reviewer for 9 ISI journals in the Q1 quartile and for 3 ISI journals in the Q2 quartile, including the famous journal *IEEE Transactions on Neural Networks and Learning Systems*, which has an impact factor of 7,98.



