



**ACADEMIA ROMÂNĂ**  
**Secția de Științe Tehnice**

**RAPORT SINTETIC DE ACTIVITATE**  
pe anul 2017

În decursul anului 2017 membrii Secției de Științe Tehnice au avut o susținută activitate științifică proprie (vezi Anexa 1) și au coordonat activitatea de cercetare din institutele care aparțin secției.

Dintre numeroasele aspecte ale activității secției menționăm :

- Coordonarea și urmărirea realizării planului de cercetare 2017 aferent celor două institute de cercetare ale secției (Institutul de Mecanica Solidelor București - IMSAR și Centrul de Cercetări Tehnice Fundamentale și Avansate Timișoara - CCTFA) și pregătirea și avizarea planului 2018;
- Evaluarea institutelor coordonate de secție ;
- Supervizarea activității de doctorat – IOD, Institutul de Mecanica Solidelor
- Acordarea premiilor Academiei Române în domeniul științelor tehnice pe anul 2015;
- Analiza și avizarea planului de relații externe din anul 2017;
- Actualizarea permanentă a portofoliului de apariții în Editura Academiei Române;
- Analiza revistelor supervizate de secție : *Revue Roumaine des Sciences Techniques - Série de Mécanique Appliquée*, *Revue Roumaine des Sciences Techniques - Série Électrotechnique et Énergétique* și domeniul *Technical Sciences* al revistei *Proceedings of the Romanian Academy, series A : Mathematics, Physics, Technical Sciences, Information Science*
- Secția a reanalizat portofoliul existent de propuneri de noi membri ai Academiei Române

6.12.2017

Președintele secției,

**Acad. Dorel BANABIC**

Secretar științific,

**Dr. Dinu BRATOSIN**

**Anexe :**

- **Anexa 1 – Lucrari publicate de membrii sectiei in anul 2017**
- **IMSAR, Raport 2017**
- **CCTFA, Raport 2017**
- **IMSAR, Plan 2018**
- **CCTFA, Plan 2018**



**ACADEMIA ROMÂNĂ**  
**Secția de Științe Tehnice**

**Cele mai semnificative lucrări publicate în anul 2017 sunt:**

1. **V. Badescu**, Optimal Control in Thermal Engineering, Volume 93 in Studies in Systems, Decision and Control, Springer International Publishing, Switzerland, 2017
2. L.F. Mazzolani, **D. Dubina**, L. Simões da Silva, M. D’Aniello, Design of Steel Structures for Buildings in Seismic Areas, ECCS-CECM-EKAS, Ernst&Sohn, 2017,
3. **Banabic D.**, Balan T., Comsa D.S., Anisotropic Yield Criteria for Aluminum Alloy Sheets, In: (Ed. Totten I., Encyclopedia of Aluminium and its Alloys), Taylor and Francis, New York, 2017
4. Madescu Gh., Biriescu M., Tutelea L.N., Mot M., Svoboda M., **Boldea I.**, Experimental Investigation of Rotor Currents Distribution in the Healthy and Faulty Cage of Induction Motors at Standstill, IEEE Transactions on Industrial Electronics, Year: 2017, Volume: 64, Issue: 7, Pages: 5305 – 5313.
5. Daniela Susan-Resiga, L. **Vékás**, Ferrofluid based composite fluids: Magnetorheological properties correlated by Mason and Casson numbers, Journal of Rheology 61(3), 401-408 (2017)

6.12.2017

Președintele secției,

**Acad. Dorel BANABIC**

Secretar științific,

**Dr. Dinu BRATOSIN**

**LISTA DE LUCRARI**

27 Nov 2017

**A. CARTI**

**A.1 CARTI PUBLICATE IN ROMANIA**

1. Lăzărescu L., Comsa D.S., **Banabic D.**, **Proiectarea tehnologiilor si a matritelor pentru prelucrarea tablelor metalice**, Casa Cartii de Stiinta Cluj Napoca, 2017, 306 pag.

**B. CONTRIBUTII LA CARTI**

**B.2 PUBLICATE IN STRAINATATE**

1. **Cea mai semnificativa:**  
**Banabic D.**, Balan T., Comsa D.S., Anisotropic Yield Criteria for Aluminum Alloy Sheets, In: (Ed. Totten , Encyclopedia of Aluminium and its Alloys), Taylor and Francis, New York, 2017

**C. ARTICOLE PUBLICATE IN REVISTE**

**C.1 PUBLICATE IN REVISTE ISI**

1. A. Kami, B. Mollaei Dariani, D. S. Comsa, **D. Banabic**, A. Sadough Vanini, M. Liewald, An experimental study on the formability of a vibration damping sandwich sheet (Bondal), Proceedings of the Romanian Academy, Series A, 18(2017), 281-290 (IF=1.735).

**C.1 PUBLICATE IN REVISTE NECOTATE ISI**

1. D. Lumelskyj, J. Rojek, **D. Banabic**, L. Lazarescu, Detection of strain localization in Nakazima formability test -experimental research and numerical simulation, Procedia Engineering 183 (2017) 89 – 94.
2. A. Kami, K. Chung, **D. Banabic**, Analytical and numerical studies on formability of metal/polymer/metal sandwich sheets, Romanian Journal of Technical Sciences - Applied Mechanics, (2017), Nr. 1, 28-38.

**C. LUCRARI PUBLICATE IN VOLUMELE CONFERINTELOR INTERNATIONALE COTATE ISI**

1. H. Alharthi, S. Hazra, **D. Banabic**, R. Dashwood, Analytical methodology for the determination of the flow curves of aluminum and steel alloys using the hydraulic bulge tests, AIP Conference Proceedings, Vol. 1769, 200004.1-6
2. D.S. Comsa, L. Lăzărescu, **D. Banabic**, Assessing the Formability of Metallic Sheets by Means of Localized and Diffuse Necking Models, AIP Conference Proceedings, Vol. 1769, 2000010.1-6

**D. LUCRARI PUBLICATE IN VOLUMELE CONFERINTELOR INTERNATIONALE**

1. **D. Banabic**, Industry 4.0-Applications in metal forming, 8th International Conference on Manufacturing Science and Education – MSE 2017 , “Trends in New Industrial Revolution”, June 7-9, 2017, Sibiu, Romania (Keynote paper)
2. **D. Banabic**, Applications of the multiscale modeling in sheet metal forming, IDDRG Conf., July 02-06, 2017, Munich (Keynote paper)
3. **D. Banabic**, The Fourth Industrial Revolution -Industry 4.0, The 41st American Romanian Academy Congress, July 19-22 July 2017 Craiova, ROMANIA (Keynote Paper).
4. L. Lazarescu, **D. Banabic**, Evaluation of deep drawing force under different friction conditions, Conf. Modern Technologies in Manufacturing-MTeM2017, 12-13 October, 2017 Cluj Napoca

**E. LUCRARI PUBLICATE LA CONFERINTE NATIONALE**

1. **D. Banabic**, Industria și universitățile tehnice românești în fața sfidărilor mondiale, Conf. Educația Și Cercetarea Românească, 23 martie 2017, București
2. V. Axinciuc, **D. Banabic**, Evoluția corpului tehnic din România din 1864 până în present, Conferinta Zilele Academiei de Științe Tehnice din România, 6-7 Octombrie 2017, Constanta

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**Acad. Mihail-Viorel Bădescu**

ARTICOLE

Qahtan Adnan Abed, Viorel Bădescu, Adrian Ciocanea, Iuliana Soriga and Dorin Burețea, Models for New Corrugated and Porous Solar Air Collectors under Transient Operation, *J. Non-Equilib. Thermodyn.* 2017, 42(1) 79-97; DOI 10.1515/jnet-2016-0013

D. Stanciu, V. Bădescu, Solar-driven Joule cycle reciprocating Ericsson engines for small scale applications. From improper operation to high performance. *Energy Conversion and Management*, 135 (2017) 101-116, doi:/10.1016/j.enconman.2016.12.070

Marius Paulescu, Marek Brabec, Remus Boata, Viorel Bădescu, Structured, physically inspired (gray box) models versus black box modeling for forecasting the output power of photovoltaic plants, *Energy* 121 (2017) 792 – 802, doi: 10.1016/j.energy.2017.01.015.

Mohanad Aldhaidhawi, Radu Chiriac, Viorel Bădescu, Ignition delay, combustion and emission characteristics of Diesel engine fueled with rapeseed biodiesel – A literature review, *Renewable and Sustainable Energy Reviews* 73 (2017) 178–186, doi:10.1016/j.rser.2017.01.129.

Viorel Bădescu, Qahtan A. Abed, Adrian Ciocanea, Iuliana Soriga, The stability of the radiative regime does influence the daily performance of solar air heaters, *Renewable Energy* 107 (2017) 403-416, doi:10.1016/j.renene.2017.02.011.

Viorel Bădescu, Mahdi Hatf Kadhum Aboaltaboq, Horatiu Pop, Valentin Apostol, Malina Prisecaru, Tudor Prisecaru, Design and operational procedures for ORC-based systems coupled with internal combustion engines driving electrical generators at full and partial load, *Energy Conversion and Management* 139 (2017) 206–221; doi:10.1016/j.enconman.2017.02.046.

Sanda Budea, Viorel Bădescu, Improving the Performance of Systems with Solar Water Collectors used in Domestic Hot Water Production, *Energy Procedia* 112 ( 2017 ) 398 – 403, doi: 10.1016/j.egypro.2017.03.1088

V. Bădescu, Smooth and non-smooth optimal pin fin profiles beyond the Schmidt optimality assumption and “length-of-arc” approximation, *Applied Mathematical Modelling* 47 (2017) 358–380, doi: 10.1016/j.apm.2017.03.011

Tudor Baracu, Viorel Bădescu, Catalin Teodosiu, Mircea Degeratu, Monica Patrascu, Constantin Streche, Consideration of a new extended power law of air infiltration through the building’s envelope providing estimations of the leakage area, *Energy and Buildings* 149 (2017) 400–423; DOI: 10.1016/j.enbuild.2017.04.055

Mohanad Aldhaidhawi, Radu Chiriac, Viorel Bădescu, Georges Descombes, Pierre Podevin, Investigation on the mixture formation, combustion characteristics and performance of a Diesel engine fueled with Diesel, Biodiesel B20 and hydrogen addition, *International Journal of Hydrogen Energy* 4 2 ( 2 0 1 7 ) 1 6 7 9 3 -1 6 8 0 7, DOI: 10.1016/j.ijhydene.2017.01.222

Marek Brabec, Marius Paulescu, Viorel Badescu, Statistical properties of clear and dark duration lengths, *Solar Energy* 153 (2017) 508–518, DOI:10.1016/j.solener.2017.06.003

I Soriga, V Badescu, Performance of SDHW systems with fully mixed and stratified tank operation under radiative regimes with different degree of stability, *Energy*, 2017, 118:1018-1034, DOI: 10.1016/j.energy.2016.10.137.

Shady Attia, Polyvios Eleftheriou, Flouris Xeni, Rodolphe Morlot, Christophe Ménézo, Vasilis Kostopoulos, Maria Betsi, Iakovos Kalaitzoglou, Lorenzo Pagliano, Maurizio Cellura, Manuela Almeida, Marco Ferreira, Tudor Baracu, Viorel Badescu, Ruxandra Crutescu, Juan Maria Hidalgo-Betanzos, Overview and future challenges of nearly zero energy buildings (nZEB) design in Southern Europe, *Energy and Buildings* 155 (2017) 439–458, DOI: 10.1016/j.enbuild.2017.09.043.

Mohanad Aldhaidhawi, Marek Brabec, Miron Lucian, Radu Chiriac, Viorel Bădescu, Experimental and numerical assessment of ignition delay period for pure diesel and biodiesel B20, *Materials Science and Engineering* 252 (2017) 012068, doi:10.1088/1757-899X/252/1/012068

Alexandru Dumitrescu, Chris A. Gueymard and Viorel Badescu, Reconstruction of historical aerosol optical depth time series over Romania during summertime, *Int. J. Climatol.* 37: 4720–4732(2017);DOI:10.1002/joc.5118.

V. Badescu, Thermodynamics of Photovoltaics, Reference Module in Earth Systems and Environmental Sciences, Elsevier, 2017, pp. 1-39; doi: 10.1016/B978-0-12-409548-9.04806-5.

## CARTI

43. V. Badescu, Optimal Control in Thermal Engineering, Volume 93 in Studies in Systems, Decision and Control, Springer International Publishing, Switzerland, 2017, DOI: 10.1007/978-3-319-52968-4; ISBN: 978-3-319-52967-7 (Print) 978-3-319-52968-4 (Online), 588 pp.

## CEA MAI IMPORTANTA LUCRARE:

V. Badescu, Smooth and non-smooth optimal pin fin profiles beyond the Schmidt optimality assumption and “length-of-arc” approximation, *Applied Mathematical Modelling* 47 (2017) 358–380, doi: 10.1016/j.apm.2017.03.011

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## Acad. Ion-Gheorghe Boldea

Total: Indice Hirsch(ISI):31,citari( fara autocitari)-ISI >3200 la 2017,19 Sept

### 1. Lucrari stiintifice(dupa IEEEExplore/boldea/2017

1.Comparative Study of Transversal-Flux Permanent Magnetic Linear Oscillatory Machines for Compressor Xiang Li; Wei Xu; Caiyong Ye; Ion Boldea, *IEEE Transactions on Industrial Electronics*, Year: 2017, Volume: PP, Issue: 99

2. Line Start 1 Phase – Source Split Phase Capacitor Cage – PM Rotor – RelSyn Motor: Modeling, Performance and Optimal Design, with Experiments, Lucian Nicolae Tutelea; Tiago Staudt; Ana Popa; Wagner Hoffmann; Ion Boldea, *IEEE Transactions on Industrial Electronics*, Year: 2017, Volume: PP, Issue: 99, Pages: 1 – 1, IEEE Early Access Articles.

3. Axial-flux PM synchronous machines with air-gap profiling and very high ratio of spoke rotor poles to stator concentrated coils, Vandana Rallabandi; Narges Taran; Dan M. Ionel; Ion G. Boldea, 2017 IEEE International Electric Machines and Drives Conference (IEMDC), Year: 2017, Pages: 1 – 7, IEEE Conference Publications.

4. Linear Electric Machines, Drives and MAGLEVs: an Overview, Ion Boldea; Lucian Tutelea; Wei Xu; Marcello Pucci, *IEEE Transactions on Industrial Electronics*, Year: 2017, Volume: PP, Issue: 99, Pages: 1 – 1, IEEE Early Access Articles.

5. Small-power 4 stator-pole stator-ferrite PMSM single-phase self-starting motor drive: FEM-based optimal design and controlled dynamics, Andy-Sorin Isfanuti; Lucian Nicolae Tutelea; Ion Boldea; Tiago Staudt, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Year: 2017, Pages: 517 – 522, IEEE Conference Publications.

6. Fast computation of bar over-currents in the faulty cage of induction motors with experimental validation, Gheorghe Madescu; Marius Biriescu; Lucian-Nicolae Tutelea; Martian Mot; Ion Boldea, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Year: 2017, Pages: 388 – 394, IEEE Conference Publications.

7. Closed slot induction machine inductances and rotor resistance characterization versus current and frequency via FEM, Ileana Torac; Lucian-Nicolae Tutelea; Ion Boldea, 2017 International Conference on Optimization of

Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Year: 2017, Pages: 275 – 280, IEEE Conference Publications.

8. A step capacitor controlled 1 phase a.c. autonomous PM generator, with experiments, Ion Boldea; Lucian-Nicolae Tutelea; Dan Hulea; Nicolae Muntean, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Year: 2017, Pages: 253 – 260, IEEE Conference Publications.

9. Optimal design of BLDC multi-phase reluctance machines (MRM) for variable speed drives, Dragos Ursu; Lucian-Nicolae Tutelea; Dan Ionel; Ion Boldea, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Year: 2017, Pages: 483 – 488, IEEE Conference Publications.

10. Electric generators and motors: An overview, Ion Boldea, CES Transactions on Electrical Machines and Systems, Year: 2017, Volume: 1, Issue: 1, Pages: 3 – 14, CES Journals & Magazines.

11. Combined Active Flux and High Frequency Injection Methods for Sensorless Direct Flux Vector Control of Synchronous Reluctance Machines, Arzhang Yousefi-Talouki; Paolo Pescetto; Gianmario Pellegrino; Ion Boldea, IEEE Transactions on Power Electronics, Year: 2017, Volume: PP, Issue: 99, Pages: 1 – 1, IEEE Early Access Articles

12. ASTR Conference/ Oct.2017, Constanta/ I. Boldea, N. Muntean:“HVDC systems : an overview with perspective”

NOTE: some of IEEE Journal papers, all approved are already on IEEE site but will be printed later this year or early next year(the list is taken from IEEEExplore)

#### **Articolul cel mai important :**

Experimental Investigation of Rotor Currents Distribution in the Healthy and Faulty Cage of Induction Motors at Standstill, Gheorghe Madescu; Marius Biriescu; Lucian Nicolae Tutelea; Martian Mot; Marcus Svoboda; Ion Boldea, IEEE Transactions on Industrial Electronics, Year: 2017, Volume: 64, Issue: 7, Pages: 5305 – 5313, IEEE Journals & Magazines.

#### 2. Cursuri intensive :

a.UTDallas/March 2017/6 ore: “Optimal design of small electric Motors”

b. **University of Aalborg/Denmark**/two intensive Courses/27 ore, November 2017/ “Sensorless control of electric motors and generators: a review, with contributions” and “reluctance electric machines design and control : a review, with contributions”

c. **IECON/IEEE/Beijing**/Oct. 2017/ intensive course contribution/2 hours “ Linear electric machines drives and MAGLEVS”

d. **IEEE Conf/Australia,Adelaide**/ November 2017/intensive course participation /2 hours: “Linear oscillatory PM machines for compressor drives”

3. **Keynote Address**: International Symposium on power electronics/IEEE/Novisad ,Oct/2017: “High power windgens design and control: an overview”

4. Continuarea editarii revistei internationale pe Internet-only : www.jee.ro cu 4 numere pe an cu cite 50-60 de articole pe numar, cu o rata de respingere(neplanificata) de circa 50 %; 3000 de vizitatori ai site-ului(revistei) pe luna ,pe counter.

**Acad. Dan Dubinǎ**

**H-index : WoS 14, SCOPUS 15, Google Scholar 22**

#### **Lucrarea cea mai semnificativa : cartea :**

Landolfo, Federico Mazzolani, **Dan Dubina**, Luís Simões da Silva, Mario D’Aniello  
*Design of Steel Structures for Buildings in Seismic Areas*, ECCS-CECM-EKAS,  
Ernst&Sohn,

A Wiley Brand, 1<sup>st</sup> Edition 2017, ISBN (ECCS): 978-92-9147-138-6, ISBN (Ernst & Sohn):  
978-3-433-03010-3, Printed in Sersilito, Empresa Gráfica Lda, Maia, Portugal

#### **Articole reviste ISI (indexate WoS)**

1. **Numerical study of a hybrid damping system composed of a buckling restrained brace with a magneto rheological damper**

By: Filip-Vacarescu, Norin; Vulcu, Cristian; Dubina, Dan

**PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS  
TECHNICAL SCIENCES INFORMATION SCIENCE** Volume: 18 Issue: 3 Pages: 273-  
280 Published: JUL-SEP 2017

2. **Beam-to-CFT High-Strength Joints with External Diaphragm. II: Numerical Simulation of Joint Behavior**

By: Vulcu, Cristian; Stratan, Aurel; Ciutina, Adrian; et al.

JOURNAL OF STRUCTURAL ENGINEERING Volume: 143 Issue: 5 Article  
Number: 04017002 Published: MAY 2017

3. **Beam-to-CFT High-Strength Joints with External Diaphragm. I: Design and Experimental Validation**

By: Vulcu, Cristian; Stratan, Aurel; Ciutina, Adrian; et al.

JOURNAL OF STRUCTURAL ENGINEERING Volume: 143 Issue: 5 Article  
Number: 04017001 Published: MAY 2017

4. **Strengthening of masonry shear walls based on metal solutions. Part II: fe-model for the performance evaluation**

By: Dogariu, Adrian Ioan; Dubina, Dan

PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS PHYSICS  
TECHNICAL SCIENCES INFORMATION SCIENCE Volume: 18 Issue: 2 Pages: 158-  
165 Published: APR-JUN 2017

5. **Strengthening of masonry shear walls based on metal solutions. Part II: experimental investigation**

By: Dogariu, Adrian Ioan; Dubina, Dan

PROCEEDINGS OF THE ROMANIAN ACADEMY SERIES A-MATHEMATICS  
PHYSICS TECHNICAL SCIENCES INFORMATION  
SCIENCE Volume: 18 Issue: 1 Pages: 81-88 Published: JAN-MAR 2017

6. **Experimental testing and numerical modelling of steel moment-frame connections under column loss**

By: Dinu, Florea; Marginean, Loan; Dubina, Dan

ENGINEERING STRUCTURES Volume: 151 Pages: 861-878 Published: NOV  
15 2017

7. **Plastic mechanisms of thin-walled cold-formed steel members in eccentric compression**

By Viorel Ungureanu, Maria Kotelko, Anna Karmazyn, **Dan Dubina**

TWIN WALLED STRUCTURES, <http://dx.doi.org/10.1016/j.tws.2017.09.029>

**Carti in edituri straine :**

Landolfo, Federico Mazzolani, **Dan Dubina**, Luís Simões da Silva, Mario D'Aniello  
*Design of Steel Structures for Buildings in Seismic Areas*, ECCS-CECM-EKAS,  
Ernst&Sohn, Wiley Brand, 1<sup>st</sup> Edition 2017, ISBN (ECCS): 978-92-9147-138-6, ISBN  
(Ernst & Sohn): 978-3-433-03010-3, Printed in Sersilito, Empresa Gráfica Lda, Maia,  
Portugal, 491 p.

**Capitole in carti, publicate in edituri straine ;**

**Dan Dubina** & Viorel Ungureanu: „*Chapter 20: Research and design of thin-walled steel structures by FEM. Part I- Stability of slender steel structures: A short review and guidance for numerical modelling*”, în volumul 5: *Statics, Dynamics and Stability of Structures - Selected problems of solid mechanics* (Eds. Zbigniew Kolakowski, Radoslav J. Mania), Lodz University of Technology Press, ISBN 978-83-7283-758-5, 2016, pp. 447-485.- (print Sept 2016)

**Dan Dubina** & Viorel Ungureanu: „*Chapter 1: Research and design of thin-walled steel structures by FEM. Part II- Two Case studies applying advanced FEM based modelling*”, în volumul 6: *Statics, Dynamics and Stability of Structures - Selected problems of solid mechanics* (Eds. Zbigniew Kolakowski, Radoslav J. Mania), Lodz University of Technology Press, ISBN 978-83-7283-768-4, 2016, pp. 21-48.- (print Oct 2016)

Ungureanu V., **Dubina D.**, Kotelko M., Mania R., Chapter 9: *Post-ultimate behaviour of thin-walled cold-formed steel open-sections members in pure and eccentric compression*, ”, în volumul 6: *Statics, Dynamics and Stability of Structures - Selected problems of solid mechanics* (Eds. Zbigniew Kolakowski, Radoslav J. Mania), Lodz University of Technology Press, ISBN 978-83-7283-768-4, 2016, pp. 191-209.- (print Oct 2016)

Chesoan A., Stratan A., **Dubina D.**: Chapter 8 : *Replaceable bolted link* , in *Innovative anti-seismic devices and systems*, ECCS-European convention for constructional steel, ISBN 978-92-9147-136-2, ECCS, Brussels, 2017, 203-236

Neagu C., Dinu F., **Dubina D.**, Chapter 8, *Replaceable shear panel*, in *Innovative anti-seismic devices and systems*, ECCS-European convention for constructional steel, ISBN 978-92-9147-136-2, ECCS, Brussels, 2017, 237-268

#### Articole in Volumeale conferintelor Internationale :

1. **Dubina D.**, Dinu F., Neagu C., Marginean I., Dan D., *Structural upgrade of reinforced concrete building frames using replaceable hysteretic steel-based elements*, 3rd Int Conf. On Protection of historical constructions-PROHITECH'17, 12-15 july, 2017, Lisbon Portugal, IST Press , ISBN 978-989-8481-58-0, Istituto superior Technico, 347-348 ( and CD), 2017
2. Cristian Vulcu, **Dan Dubină\***, Nicolae Popa, Ladislau Vekas, Gheorghe Ghiță, Tudor Sireteanu, Istvan Borbath, Radu Oprescu : *Hybrid seismic protection system: Buckling restrained brace of nano-micro composite magneto rheological damper* , 8<sup>th</sup> European conference on steel and composite structures, EUROSTEEL 2017, 13-17 sept. 2017, Copenhagen, Denmark, Ernst & Sohn Verlag /a Wiley brand , <http://onlinelibrary.wiley.com/doi/10.1002/cepa.345/pdf>
3. Ioan Both\*, Ciprian Zub, Aurel Stratan, **Dan Dubina**: *Cyclic behaviour of European carbon steels* , 8<sup>th</sup> European conference on steel and composite structures - EUROSTEEL 2017, 13-17 sept. 2017, Copenhagen, Denmark, Ernst & Sohn Verlag /a Wiley brand, <http://onlinelibrary.wiley.com/doi/10.1002/cepa.370/pdf>
4. Aurel Stratan\*, Cosmin Maris, **Dan Dubina**, Calin Neagu : *Experimental prequalification of bolted extended end plate beam to column connections with* , 8<sup>th</sup> - European conference on steel and composite structures EUROSTEEL 2017, 13-17 sept. 2017, Copenhagen, Denmark, Ernst & Sohn Verlag /a Wiley brand, <http://onlinelibrary.wiley.com/doi/10.1002/cepa.77/pdf>
5. Mariana Zimbru\*, Mario D’Aniello, Aurel Stratan, Raffaele Landolfo, **Dan Dubina** : *Parametric finite element analyses of detachable short links* , 8<sup>th</sup> -European conference on steel and composite structures EUROSTEEL 2017, 13-17 sept. 2017, Copenhagen, Denmark, Ernst & Sohn Verlag /a Wiley brand , <http://onlinelibrary.wiley.com/doi/10.1002/cepa.394/pdf>
6. **Dan Dubina\***, Aurel Stratan, Adriana Chesoan : *Design recommendations for dual moment - eccentric braced frames with replaceable links*, 8<sup>th</sup> -European conference on steel and composite structures EUROSTEEL 2017, 13-17 sept. 2017, Copenhagen, Denmark, Ernst & Sohn Verlag /a Wiley brand , <http://onlinelibrary.wiley.com/doi/10.1002/cepa/pfd>



7. Ciprian Ionut Zub, Adrian Dogariu, Aurel Stratan, **Dan Dubina** : *Pre-test numerical simulations for development of prequalified buckling restrained braces*, 8<sup>th</sup> -European conference on steel and composite structures EUROSTEEL 2017, 13-17 sept. 2017, Copenhagen, Denmark, Ernst & Sohn Verlag /a Wiley brand, <http://onlinelibrary.wiley.com/doi/10.1002/cepa.395/pdf>
  8. **D. Dubina**, Does the application of seismic design principles to steel building frames mitigate the risk of progressive collapse?, *Holzbau und Verbundbau-Festschrift zum 60.Geburtstag von univ.-prof.Dr.Ing. Ulrike Kuhlmann*, Ernst&Sohn, Berlin, Stuttgart, Germany (2017), 98-107
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**Prof. Vasile Marinca,**  
**Membru corespondent al Academiei Romane**

**Cea mai importantă lucrare :**

Bogdan Marinca, **Vasile Marinca**: *New exact and explicit solutions of the Zakharov equations and generalized Zakharov equations by the quotient trigonometric function expansion method*, Proceedings of the Romanian Academy series A – Mathematics, Physics, Technical Sciences, Information sciences, 18 (2017) 166-173. Factor de impact (ISI): **1,623**

1. **Vasile Marinca**, Remus Ene: *Optimal homotopy perturbation method for nonlinear differential equations governing MHD Jeffery-Hamel flow with heat transfer problem*, Open Physics, 15 (2017) 42-57. Factor de impact (ISI): **0,745**
- 
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**Prof. Alexandru M. Morega**  
**Membru corespondent al Academiei Romane**

**Lucrarea selectată**

J.M. Cruz-Duarte, **A.M. Morega**, A. Garcia-Perez, C.R Correa-Cely, “Numerical simulation of heat transfer process in a non-conventional calorimeter”, *Rev. Roumaine Sci. Techn. Electrotech. et Energ.*, **62**, 4, p. 335-340, 2017.

**Lista de lucrări**

**Lucrări în reviste**

1. J.M. Cruz-Duarte, A.M. Morega, A. Garcia-Perez, C.R Correa-Cely, “Numerical simulation of heat transfer process in a non-conventional calorimeter”, *Rev. Roumaine Sci. Techn. Electrotech. et Energ.*, **62**, 4, p. 335, 2017.
2. L. Pislaru-Danescu, **A.M. Morega**, M. Morega, F. Bunea, P. Marius, C.A. Babutanu, “A new type of linear magnetostrictive motor”, *Electrical Engineering*, **99**, 2, pp. 601-613, 2017.

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3. COST Action MP1206 "Electrospinning Nanofibres" responsabil national, membru in Management Committee din partea Romaniei (2013-)

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1. *Diploma și Medalia Aniversară* „20 de ani de la înființarea ASTR”, *Academia de Științe Tehnice din România*.
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**Membru corespondent al Academiei Romane**

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