

Dr.ing. Sandor I. BERNAD, CS I

Lista de lucrări structurată în raport cu cerințele preliminare și criteriile de evaluare și anume, după caz, în ordine:

maximum 10 publicatii selectionate de candidat considerate a fi cele mai relevante pentru realizarile profesionale obtinute ulterior conferirii titlului de doctor in stiinta, teza/tezele de doctorat, brevete de invenție, cărți și capitole de cărți, articole/studii in extenso publicate în reviste din fluxul stiintific internațional principal (ISI), publicatii in extenso aparute in lucrari ale principalelor conferinte internaționale de specialitate, alte lucrari și contributii stiintifice.

I. Lucrări considerate de candidat a fi cele mai relevante (10 lucrări)

1. **Sandor I. Bernad**, Alin F. Totorean, Ladislau Vekas, Particles deposition induced by the magnetic field in the coronary bypass graft model, Journal of Magnetism and Magnetic Materials, 2016, vol 401, pp: 269-286, doi:10.1016/j.jmmm.2015.10.020, ISSN: 0304-8853, (IF=2,357).
2. Alin F.Totorean, **Sandor I. Bernad**, Romeo F. Susan-Resiga, Fluid dynamics in helical geometries with applications for by-pass grafts, Applied Mathematics and Computation, 2016, vol 272 part 3, pp: 604-613, <http://dx.doi.org/10.1016/j.amc.2015.05.030>, ISSN:0096-3003, (IF = 1,345).
3. Elena S. Bernad, **Sandor I. Bernad**, Izabella Sargan, Marius L. Craina, Saphenous vein graft patency after geometry remodeling, Journal of Mechanics in Medicine and Biology, 2015, vol. 16, no. 2, 1540051, <http://dx.doi.org/10.1142/S0219519415400515>, ISSN: 0219-5194, (IF = 0,797).
4. **Sandor I. Bernad**, Alin I. Bosioc, Elena S. Bernad, Marius L. Craina, Helical type coronary bypass graft performance: Experimental investigations, Bio-Medical Materials and Engineering, vol. 26, no. s1, pp. 477-486, 2015, <http://dx.doi.org/10.3233/BME-151337>, ISSN: 0959-2989, (IF = 0,988).
5. Alin F. TOTOREAN, Alin I. BOSIOC, **Sandor I. BERNAD**, Romeo SUSAN-RESIGA, Critical Flows Regions in the Coronary By-pass graft Anastomosis, Proceedings of the Romanian Academy, Series A-Mathematics Physics Technical Sciences Informational Science, 16 (2):201–208, 2015, <http://www.acad.ro/sectii2002/proceedings/doc2015-2/11Bernad.pdf>, ISSN: 1454-9069, (IF = 1,735).
6. A.F. Totorean, A.I. Bosioc, **S.I. Bernad**, R. Susan-Resiga, Identification an visualization of the vortices in by-pass graft flow Proceedings of the Romanian Academy, Series A-Mathematics Physics Technical Sciences Informational Science,15(1):52-59, 2014, <http://www.acad.ro/sectii2002/proceedings/doc2014-1/07-Bernad.pdf>, ISSN: 1454-9069, (IF = 1,658).
7. E.S. Bernad, **S.I. Bernad**, M.L. Craina, Hemodynamic parameters measurements to assess severity of serial lesions in patient specific right coronary artery, Bio-Medical Materials and Engineering, Volume 24(1), 2014, pp: 323-334, DOI 10.3233/BME-130814, ISSN: 0959-2989, (IF = 1,091).
8. **S.I. Bernad**, A. Bosioc, E.S. Bernad, M.L. Craina, Comparison between experimentally measured flow patterns for straight and helical type graft, Bio-Medical Materials and Engineering, Volume 24/1, 2014, pp: 853-860, DOI 10.3233/BME-130877, ISSN: 0959-2989, (IF = 1,091).
9. E.S. Bernad, M. Craina, A. Tudor, **S.I. Bernad**, Perinatal outcome associated with nuchal umbilical cord, Clinical and Experimental Obstetrics & Gynecology, 39(4), 2012, pp: 494-497, ISSN: 0390-6663, (IF = 0,379).
10. **Bernad S.**, Susan-Resiga R., Muntean S., Anton I., (2007), Cavitation phenomena in hydraulic valves. Numerical modelling, Proceedings of the Romanian Academy, Series A-Mathematics Physics Technical Sciences Informational Science, 8(2):117-126, <http://www.acad.ro/sectii2002/proceedings/doc2007-2/10-Bernad%20.pdf>, ISSN: 1454-9069, (IF = 0.149).

1. Teza de doctorat

Sandor I. Bernad, (2000), Optimizarea funcționării supapelor hidraulice de presiune în regim staționar și dinamic, Universitatea "Politehnica" din Timișoara, Facultatea de Mecanică, Conducător Științific: Acad. Prof. Dr. H.C. Dr. Doc. Ing. Ioan ANTON, 292 pagini, (cum Laude). Diploma seria A Nr. 0001005 in baza Ordinului MEN nr. 3467 din 16.03.2001.

2. Cărți si Capitole in cărți

Cărți:

1. **Sandor I. Bernad**, Hemodinamica patologiei arterelor coronare, Editura Krista, (2016), 208 pagini, ISBN 978-973-99771-1-1.
2. **Sandor I. Bernad**, Hemodinamica curgerii in geometrii simplificate, Editura Krista, (2016), 166 pagini, ISBN 978-973-99771-2-8.
3. **Sandor I. Bernad**, Hidrodinamica echipamentelor de reglare pentru actionari hidraulice, Editura Orizonturi Universitare, (2005), 224 pagini, ISBN 973-638-249-4.
4. Resiga R., Muntean S., **Bernad S.**, Balint D., Balint I., Modern methods for fluid flow simulation using parallel computing. Orizonturi Universitare Publishing House, (2003), 296 pagini, ISBN 973-638-064-5.

Capitole in cărți:

- 1 **S.I. Bernad**, E.S. Bernad, T. Barbat, C. Brisan, V. Albulescu, Capter 11: An analysis of blood flow dynamics in AAA, pp: 191-206, in *Etiology, Pathogenesis and Pathophysiology of Aortic Aneurysms and Aneurysm Rupture*, editor: Reinhart Grudmann, InTech Open Access Publisher, (2011), Croatia, hard cover, 222 pages, ISBN: 978-953-307-523-5. (<http://www.intechopen.com/books/show/title/etiology-pathogenesis-and-pathophysiology-of-aortic-aneurysms-and-aneurysm-rupture>)
- 2 **S.I. Bernad**, Elena S. Bernad, T. Barbat, V. Albulescu, R. Susan-Resiga, Capter: Effects of different types of input waveforms in patient-specific right coronary atherosclerosis hemodynamics analysis, pp: 55-73, in *Modelling in Medicine and Biology* edited by C. A. Brebbia, WIT Press, (2011), Southampton, UK, 220 pages, ISBN: 978-1-84564-4, eISBN: 978-1-84564-573-1, <http://www.witpress.com/978-1-84564-572-4.html>
- 3 Hodor V., Bode F., Vaida L.I., Vaida C., Opruta D., Baran G., Bunea F., Oprina G., **Bernad S.I.** *Chapter 8. Vortex Flows in fluid Equipments*, (2007), pp: 387-427; pages 40. In Susan-Resiga R., Bernad S., Muntean S. (Editors) *Vortex Hydrodynamics and Applications*, Eurostampa Publishing House, Timisoara, ISBN: 978-973-687-659-2.
- 4 Balan C., Broboana D., Kadar R., Giurgea C., Rafiroiu D., **Bernad S.I.**, *Chapter 9. BioMedical Vortex Flows*, (2007) pp. 429-492, pages 63. In Susan-Resiga R., Bernad S., Muntean S. (Editors) *Vortex Hydrodynamics and Applications*, Eurostampa Publishing House, Timisoara, ISBN: 978-973-687-659-2.

Editor:

- 1 Susan-Resiga R., Muntean S., **Bernad S.**, (Editors), (2010), *Proceedings of the "25nd IAHR Symposium on Hydraulic Machinery and Systems"*, Timisoara, 20-24 Sept. 2010, in Institute of Physics. Conference Series Earth and Environment Science, Issue 12, ISSN 1775-1315. (<http://iopscience.iop.org/1755-1315/12/>)
- 2 Georgescu A.M, Georgescu Sanda-C, **Bernad S.**, (Editors), (2008), *Proceedings of the 4th Workshop on Vortex Dominated Flows. Achievements and Open Problems"*, Bucuresti, 12 - 13 sept. 2008, in Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Issue 3, Tom 53(67), ISSN 1224-6077.

- 3 Susan-Resiga R., **Bernad S.**, Muntean S. (Editors), (2007), *Proceedings of the "2nd IAHR International Meeting of the Workgroup on Cavitation and Dynamic Problems in Hydraulic Machinery and Systems*, Timisoara, 24-26 Oct. 2007, in Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Issue 6, Tom 52(66), (244 pp.), ISSN 1224-6077.
- 4 Susan-Resiga R., **Bernad S.**, Muntean S. (Editors), (2007), *Vortex Hydrodynamics and Applications*, Eurostampa Publishing House, (492 pp.), ISBN: 978-973-687-659-2.
- 5 **Bernad S.**, Muntean S., Susan-Resiga R. (Editors), (2007), *Proceedings of the "3rd Workshop on Vortex Dominated Flows. Achievements and Open Problems"*, in Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Issue 3, Tom 52(66), (158 pp.), ISSN 1224-6077.
- 6 **Bernad S.**, Muntean S., Susan-Resiga R. (Editors), (2006), *Proceedings of the 2nd Workshop on Vortex Dominated Flows Achievements and Open Problems*, in Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Mechanics, Special Issue, (196 pp.), ISSN 1224-6077.
- 7 **Bernad S.**, Muntean S., Susan-Resiga R. (Editors), (2005), *Proceedings of the Workshop on Vortex Dominated Flows Achievements and Open Problems*, in Scientific Bulletin of the "Politehnica" University of Timisoara, Romania, Transactions on Mechanics, Special Issue, (214 pp.), ISSN 1224-6077.
- 8 R. Susan-Resiga, **Bernad S.**, Muntean S., Popoviciu M. (Editors), (2004), *Proceedings of the 6th International Conference on Hydraulic Machinery and Hydrodynamics*, Scientific Bulletin of the 'Politehnica' University of Timisoara, Romania, Transactions on Mechanics, Tom 49(63), Special Issue, (740 pp.), ISSN 1224-6077.
- 9 Anton I., Resiga R., Sofonea S., **Bernad S.**, Muntean S., (Editors), (2003), *Proceedings of Workshop on Numerical Methods in Fluid Mechanics and FLUENT Applications*, Orizonturi Universitare Publishing House, (312 pp.), ISBN 973-638-022-X.

3. Articole în Jurnale ISI. Poziția de autor corespondent: marcat cu galben

No	Year	Title / Author(s) / Source	Impact factor	DOI / www	ISSN
1.	2016	Sandor I. Bernad , Alin F. Totorean, Ladislau Vekas, Particles deposition induced by the magnetic field in the coronary bypass graft model, Journal of Magnetism and Magnetic Materials, 2016, vol 401, pp: 269-286	2,357	doi:10.1016/j.jmmm.2015.10.020	0304-8853
2.	2016	Elena Bernad, Stelian Pantea, Angela Boglut, Ciprian Duta, Sandor I. Bernad , Izabella Petre, Investigation of Chorionic Artery Bifurcation Using Micro Vascular Casting Model, Revista de Chimie, 2016, 67(2), pp: 339-343	0,956	http://www.revistadechimie.ro/article_eng.asp?ID=4871	0034-7752
3.	2016	Alin F.Totorean, Sandor I. Bernad , Romeo F. Susan-Resiga, Fluid dynamics in helical geometries with applications for bypass grafts, Applied Mathematics and Computation, 2016, vol 272 part 3, pp: 604-613	1,345	http://dx.doi.org/10.1016/j.amc.2015.05.030	0096-3003
4.	2015	Elena Silvia Bernad, Izabella Petre, S.I.Bernad , R.Ilina, Fetoplacental Network Hemodynamics Investigations Using Vascular Casting Model, Materiale Plastice, 2015, vol 52, no 4, pp: 584-587	0,903	http://www.revmaterialeplastice.ro/pdf/4%2015.pdf	0025-5289
5.	2015	Elena S. Bernad, Sandor I. Bernad , Izabella Sargan, Marius L. Craina, Saphenous vein graft patency after geometry remodeling, Journal of Mechanics in Medicine and Biology, 2015, vol. 16, no. 2, 1540051,	0,797	http://dx.doi.org/10.1142/S0219519415400515	0219-5194
6.	2015	Izabella Petre, Elena Bernad, Anca Muresan, Anca Bordianu, Sandor I. Bernad , Onut Bacean, Roxana Folescu, Amelia Milulescu, Stelian Pantea, Choriocarcinoma developed in a tubal pregnancy – a case report, Rom J Morphol Embryol, 2015, 56(2 Suppl):871–874	0,811	http://www.rjme.ro/RJME/resources/files/561215871874.pdf	1220-0522
7.	2015	Sandor I. Bernad , Alin I. Bosioc, Elena S. Bernad, Marius L. Craina, Helical type coronary bypass graft performance: Experimental investigations, Bio-Medical Materials and Engineering, vol. 26, no. s1, pp. 477-486, 2015	0,988	http://dx.doi.org/10.3233/BME-151337	0959-2989
8.	2015	Alin F. TOTOREAN, Alin I. BOSIOC, Sandor I. BERNAD , Romeo SUSAN-RESIGA, Critical Flows Regions in the Coronary By-pass graft Anastomosis, Proceedings of the Romanian Academy, Series A-Mathematics Physics Technical Sciences Informational Science, 16 (2):201–208, 2015	1,735	http://www.acad.ro/sectii2002/proceedings/doc2015-2/11Bernad.pdf	1454-9069

9.	2014	A.F. Totorean, A.I. Bosioc, S.I. Bernad , R. Susan-Resiga, Identification an visualization of the vortices in by-pass graft flow Proceedings of the Romanian Academy, Series A-Mathematics Physics Technical Sciences Informational Science,15(1):52-59, 2014	1,658	http://www.acad.ro/sectii2002/proceedings/doc2014-1/07-Bernad.pdf	1454-9069
10.	2014	E.S. Bernad, S.I. Bernad , M.L. Craina, Hemodynamic parameters measurements to assess severity of serial lesions in patient specific right coronary artery, Bio-Medical Materials and Engineering, Volume 24(1), 2014, pp: 323-334	1,091	DOI 10.3233/BME-130814	0959-2989
11.	2014	S.I. Bernad , A. Bosioc, E.S. Bernad, M.L. Craina, Comparison between experimentally measured flow patterns for straigth and helical type graft, Bio-Medical Materials and Engineering, Volume 24/1, 2014, pp: 853-860	1,091	DOI 10.3233/BME-130877	0959-2989
12.	2012	E.S. Bernad, M. Craina, A. Tudor, S.I. Bernad , Perinatal outcome associated with nuchal umbilical cord, Clinical and Experimental Obstetrics & Gynecology, 39(4), 2012, pp: 494-497	0,379		0390-6663
13.	2008	Bernad S , Georgescu A, Georgescu SC, Susan-Resiga R, Anton I, Flow investigations in Achard turbine, Proceedings of the Romanian Academy, Series A-Mathematics Physics Technical Sciences Informational Science, 9 (2):129-140, 2008	0.276	http://www.acad.ro/sectii2002/proceedings/doc2008-2/08-Bernad.pdf	1454-9069
14.	2007	Bernad S ., Susan-Resiga R., Muntean S., Anton I., (2007), Cavitation phenomena in hydraulic valves. Numerical modelling, Proceedings of the Romanian Academy, Series A-Mathematics Physics Technical Sciences Informational Science, 8(2):117-126	0.149	http://www.acad.ro/sectii2002/proceedings/doc2007-2/10-Bernad%20.pdf	1454-9069

4. Articole în Proceedings indexate ISI

No	Year	Title / Author(s) / Source	DOI / www	ISI Accession number	ISSN / ISBN
1.	2016	S.I. Bernad , A. Bosioc, E.S. Bernad, I. Petre, and A.F. Totorean, Flow characteristics in narrowed coronary bypass graft, International Conference of Numerical Analysis and Applied Mathematics 2015 (ICNAAM 2015), 22–28 September 2015, Rhodes, Greece, AIP Conference Proceedings 1738, 030025 (2016)	http://dx.doi.org/10.1063/1.4951781	WOS:000380803300036	ISBN: 978-0-7354-1392-4
2.	2016	S.I. Bernad , A.F. Totorean, A.I. Bosioc, I. Petre, and E.S. Bernad, Stent implantation influence wall shear stress evolution, International Conference of Numerical Analysis and Applied Mathematics 2015 (ICNAAM 2015), 22–28 September 2015, Rhodes, Greece, AIP Conference Proceedings 1738, 030027 (2016)	http://dx.doi.org/10.1063/1.4951783	WOS:000380803300038	ISBN: 978-0-7354-1392-4
3.	2016	A.F. Totorean, S.I. Bernad , and R.F. Susan-Resiga, The influence of stenosis degrees and graft suture position on local hemodynamics of coronary bypass, International Conference of Numerical Analysis and Applied Mathematics 2015 (ICNAAM 2015), 22–28 September 2015, Rhodes, Greece, , AIP Conference Proceedings 1738, 030029 (2016)	http://dx.doi.org/10.1063/1.4951785	WOS:000380803300040	ISBN: 978-0-7354-1392-4
4.	2015	S.I. Bernad , A. Totorean, A. Bosioc, N. Crainic, C. Hudrea, E. S. Bernad, Fluid mechanics in stented arterial model, International Conference of Computational Methods in Sciences and Engineering 2015 (ICCMSE 2015), AIP Conf. Proc., vol 1702, 080008-1–080008-4, (2015)	http://dx.doi.org/10.1063/1.4938803	WOS:000371804300034	ISSN: 0094-243X ISBN: 978-0-7354-1349-8
5.	2015	E.S. Bernad, C.I. Hudrea, S.I. Bernad , A. F. Totorean, A. I. Bosioc, Luminal flow alteration in presence of the stent, , International Conference of Computational Methods in Sciences and Engineering 2015 (ICCMSE 2015), AIP Conf. Proc., vol 1702, 080011-1-080011-4, (2015)	http://dx.doi.org/10.1063/1.4938806	WOS:000371804300037	ISSN: 0094-243X ISBN: 978-0-7354-1349-8
6.	2015	E. S. Bernad, S. I. Bernad , A. F. Totorean, C. I. Hudrea, A. I. Bosioc and N. Crainic, Fluid dynamics in 45 degrees arterial by-pass model, , International Conference of Computational Methods in Sciences and Engineering 2015 (ICCMSE 2015), AIP Conf. Proc., vol 1702, 080010-1-080010-4, (2015)	http://dx.doi.org/10.1063/1.4938805	WOS:000371804300036	ISSN: 0094-243X ISBN: 978-0-7354-1349-8
7.	2015	A. F. Totorean, S. I. Bernad , A. Bosioc, I. C. Hudrea, E. S. Bernad and R. F. Susan-Resiga, The influence of number of turns to helicity variations at the outlet sections in helical geometries with applications for by-pass graft, AIP Conf. Proc.,	http://dx.doi.org/10.1063/1.4938802	WOS:000371804300033	ISSN: 0094-243X ISBN: 978-0-7354-1349-8

		vol 1702, 080007-1-080007-4, (2015)			
8.	2015	A.F. Totorean, S. I. Bernad , R. Susan-Resiga, A helical pipe investigation from cardiovascular perspective, 2014, 12th International Conference of Numerical Analysis and Applied Mathematics 2014, 9th Symposium on Numerical Analysis of Fluid Flow and Heat Transfer, 22-28 September, 2014, Rhodes, Greece, AIP Conference Proceedings 1648, 030033 (2015)	doi: 10.1063/1.4912350	WOS:000355339700045	ISSN: 0094-243X
9.	2013	Bernad, S.I. , Bosioc, A., Totorean, A., Stanciu, R., Bernad, E.S., Vortices in by-pass graft flow, (2013) AIP Conference Proceedings, 1558, pp. 160-163, 11th International Conference of Numerical Analysis and Applied Mathematics 2013, ICNAAM 2013, 21 - 27 September 2013, Rhodes, Greece	DOI: 10.1063/1.4825445	WOS 000331472800038	ISSN: 0094243X, ISBN: 9780735411845
10.	2013	Bosioc, A.I., Muntean, S., Susan-Resiga, R.F., Vékás, L., Bernad, S. , Numerical simulation of the swirl generator discharge cone at lower runner speeds, (2013) AIP Conference Proceedings, 1558, pp. 204-207, 11th International Conference of Numerical Analysis and Applied Mathematics 2013, ICNAAM 2013, 21 - 27 September 2013, Rhodes, Greece	DOI: 10.1063/1.4825456	WOS 000331472800049	ISSN: 0094243X, ISBN: 9780735411845
11.	2013	Bernad, S.I. , Totorean, A., Bosioc, A., Stanciu, R., Bernad, E.S., Numerical investigation of Dean vortices in a curved pipe, (2013) AIP Conference Proceedings, 1558, pp. 172-175., 11th International Conference of Numerical Analysis and Applied Mathematics, 2013, ICNAAM 2013, 21 - 27 September 2013, Rhodes, Greece	DOI: 10.1063/1.4825448	WOS 000331472800041	ISSN: 0094243X, ISBN: 9780735411845
12.	2010	S.I. Bernad , E.S. Bernad, D. Broboana, V.A Albulescu, D. Barbu, C. Balan, (2010), Three-dimensional assesment of the fetal flow in a normal and in the presence of the IUGR, Proceedings of the 12th European Congress of Perinatal Medicine, Granada, Spain, May 26-29, 2010, pp: 131-134		WOS:000281970400020	ISBN: 978-88-6521-0277
13.	2010	S.I. Bernad , E.S. Bernad, T. Barbat, D. Barbu, V. Albulescu, (2010), Assesment of the placental blood flow in the developing and growth-restricted fetus, Proceedings of the 12th European Congress of Perinatal Medicine, Granada, Spain, May 26-29, 2010, pp: 127-130		WOS:000281970400019	ISBN: 978-88-6521-0277
14.	2010	Frunza T., Susan-Resiga R., Muntean S., Bernad S. , (2010), <i>Optimization of the hydrofoil cascade and validation with quasi-analytical solution for hydraulic machinery</i> , Proceedings of the 25 th IAHR Symposium on Hydraulic Machinery and Systems, Timisoara, Romania, September 20-24, 2010, in Institute of Physics Conference Series: Earth and Environmental Science, Vol. 12, 2010, Paper No. 012075, 14 pp.	DOI: 10.1088/1755-1315/12/1/012075	WOS:000325657000075	ISSN: 1755-1315

15.	2009	S.I. Bernad , T. Barbat, E. Bernad, R. Susan-Resiga, (2009), Computational hemodynamics analysis in realistic 3D geometries of human coronary atherosclerosis, WIT Transactions on Biomedicine and Health, Volume 13, pp: 93-102	doi: 10.2495/BIO090091	WOS:000268884000009	ISSN: 1743-3525
16.	2009	Bernad S. , Barbat T., Bernad E., Susan Resiga R., (2009), <i>Computational Hemodynamics in Three-Dimensional Stenosed Right Coronary Artery</i> , Proceedings of the 10th WSEAS International Conference on MATHEMATICS and COMPUTERS in Biology and Chemistry, pag.81-86, Prague, Czech Republic, 23-25 Martie 2009		WOS:000265406500012	ISSN: 1790-5125
17.	2008	Bernad SI , Barbat T, Bernad ES, Susan-Resiga R., (2008) Cardio vascular surgery - Simulation based medical intervention, MATHEMATICS AND COMPUTERS IN BIOLOGY AND CHEMISTRY, pp: 100-106		WOS:000258094800022	ISSN: 1790-5125 ISBN: 978-960-6766-75-6
18.	2008	Bernad S. I. , Georgescu A., Georgescu S., Resiga R., (2008), Numerical Investigation of the Unsteady Flow in the Achard Turbine, In New Aspects of Fluid Mechanics and Aerodynamics" WSEAS Mechanical Engineering Series WSEAS Press, pp.59-65.		WOS:000260495700005	ISSN 1790-5095 ISBN 978-960-6766-98-5
19.	2008	Broboana, D; Bernad. S ; Balan, C, (2008), <i>Investigation of vortical structures in bifurcations</i> , 15th International Congress on Rheology/80th Annual Meeting of the Society-of-Rheology, August 3-8, 2008, Monterey, USA, PTS 1 AND 2 1027291-293		WOS:000257623000096	0094-243X
20.	2006	Elena Bernad, Ileana Enatescu, C. Ilie, S. Bernad , C. Muntean, (2006), Improve the prenatal care indicators with an electronic patient record system, Proceedings of the European Federation for Medical Informatics STC, Integrating Biomedical Information: From eCell to ePatient, IOS Press Amsterdam, 2006, pp:395-397		WOS:000271221000077	ISBN 1-58603-614-9
21.	2001	Bernad S. , Susan-Resiga R., Anton I., Ancușa V., (2001), <i>Vortex Flow Modeling Inside The Poppet Valve Chamber</i> , Proceedings of the Bath Workshop on Power Transmission & Motion Control, PTMC 2001, In Fluid Power Series, Series Ed. Prof. C.R. Burrows, Research Studies Press LTD, Taunton, Somerset, England, pp: 161-176, 2001		WOS:000173073000012	ISBN 0 86380-107-2
22.	1999	Bernad E., Bernad S. , Munteanu I., (1999), <i>Database for gynecological laparoscopy</i> , Proceedings of MIE99. In Studies in Health Technology and Informatics, vol 68, Bridges of Knowledge, Editors: P. Kokol, B. Zupan, J. Stare, M. Premik, R. Engelbrechy, IOS Press Amsterdam, pp: 95-98		WOS:000084548800020	ISSN: 0926-9630
23.	1998	E.S. Bernad, A. Frantescu, S.I. Bernad , C. Vernic, (1998), <i>WEB-</i>		WOS:000077613500144	ISSN: 0926-

		<i>MO - A Computer Aided Learnig on WWW</i> , Proceedings of The 9 th World Congress on Medical Informatics, MedInfo'98 In Studies in Health Technology and Informatics, vol 52, Editors: B. Cesnik, A.T. McCray, J.-R. Scherrer, IOS Press Amsterdam, pp: 745-747			9630
24.	1997	E.S. Bernad, A. Frantescu, S.I. Bernad , A. Dobrea, (1997), <i>Educational program on neurosurgery</i> , Proceedings Medical Informatics Europe'97. In Studies in Health Technology and Informatics, vol 43, Editors: C. Pappas, N. Maglaveras, J.-R. Scherrer, IOS Press Amsterdam, pp: 726-729		WOS:000073538500152	ISSN: 0926-9630

5. Articole publicate în jurnale de specialitate indexate în baze de date internaționale

No	Year	Title / Author(s) / Source	DOI / www	ISSN
1.	2017	E.S. Bernad, S.I. Bernad , A.F. Totorean, A.I. Bosioc, I. Sargan, Flow patterns in helical-type graft: Biomedical applications, International Journal of Design & Nature and Ecodynamics, 2017, 12(1):30-43, ISSN: 1755-7437, DOI: 10.2495/DNE-V12-N1-30-43, (SCOPUS)	DOI: 10.2495/DNE-V12-N1-30-43	1755-7437
2.	2015	S.I. Bernad , E.S. Bernad, A.F. Totorean, M.L. Craina, I. Sargan, Clinical important hemodynamic characteristics for serial stenosed coronary artery, International Journal of Design & Nature and Ecodynamics, 2015, 10(2):97-113, 2015, (SCOPUS)	doi:10.2495/DNE-V10-N2-97-113	1755-7437
3.	2012	BERNAD Sandor , SUSAN-RESIGA Romeo, MUNTEAN Sebastian, Two-Phase Cavitating Flow in Turbomachines, Research Journal of Applied Sciences, Engineering and Technology 4(22), 4685-4695, 2012, (SCOPUS)	http://maxwellsci.com/jp/abstract.php?jid=RJASET&no=232&abs=18	2040-7467
4.	2012	BERNAD Sandor , SUSAN-RESIGA Romeo, Numerical Model for Cavitational Flow in Hydraulic Poppet Valves, Modelling and Simulation in Engineering, Volume (2012), Article ID 742162, 10 pages, , 2012, (SCOPUS)	doi:10.1155/2012/742162	1687-5605
5.	2012	BERNAD Sandor , BERNAD Elena, CRAINA Marius, Sargan Izabella, TOTOREAN Alin, BRISAN Cosmin, Particle Depositions and Related Hemodynamic Parameters in the Multiple Stenosed Right Coronary Artery, Journal of Clinical Medicine Research, vol 4, no 3, pp: 177-189, 2012, (SCOPUS)	doi:10.4021/jocmr843w	1918-3003
6.	2010	S.I. Bernad , E.S. Bernad, T. Barbat, V. Albulescu, R. Susan-Resiga, (2010), Effects of different types of input waveforms in patient-specific right coronary atherosclerosis hemodynamics analysis, International Journal of Design and Nature & Ecodynamics, vol 5, no. 2, pp: 142-159, (SCOPUS)	doi:10.2495/DNE-V5-N2-142-159	1755-7437
7.	2009	S.I. Bernad , T. Barbat, E.S. Bernad, R. Susan-Resiga, (2009), Numerical blood flow simulations in narrowed coronary venous bypass graft, Journal of Chinese Clinical Medicine, vol. 4, no. 1, pp: 1- 10, (SCOPUS)		1562-9023
8.	2009	S.I. Bernad , E.S. Bernad, T. Barbat, R. Susan-Resiga, V. Albulescu, (2009), Effects of asymmetry in patient-specific wall shear stress analyses of abdominal aortic aneurysm, Journal of Chinese Clinical Medicine, vol. 4, no. 8, pp: 421-429,		1562-9023

		(SCOPUS)	
9.	2006	Bernad S. , Susan-Resiga R, Muntean S, Anton I. Numerical analysis of the cavitating flows. Proceedings of the Romanian Academy, Series A: Mathematics, Physics, Technical Sciences, Information Science 2006; 7(1):1–13, (ISI)	1454-9069
10.	2006	Susan-Resiga R., Muntean S., Bernad S. , Frunza T., Balint D., (2006), Thin Hydrofoil cascade design and numerical flow analysis, Part I – Design, Proceedings of the Romanian Academy, Series A: Mathematics, Physics, Technical Sciences, Information Science, Vol. 7, No 2, pp: 117-126, The Publishing House of the Romanian Academy, (ISI)	1454-9069
11.	2006	Susan-Resiga R., Muntean S., Bernad S. , Frunza T., Balint D., (2006), Thin Hydrofoil cascade design and numerical flow analysis, Part II – Analysis, Proceedings of the Romanian Academy, Series A: Mathematics, Physics, Technical Sciences, Information Science, Vol. 7, No 3, pp: 175-182, 2006, The Publishing House of the Romanian Academy, (ISI)	1454-9069

6. Articole publicate în Proceedings indexate în baze de date internaționale

No	Year	Title / Author(s) / Source	DOI / www	ISSN / ISBN
1.	2013	Bernad, E.S., Craina, M., Bernad, S.I. , Blood flow simulations in patient-specific coronary bypass grafts, (2013) WIT Transactions on Information and Communication Technologies, 45, pp. 187-196, 1st International Conference on Data Management and Security: Applications in Medicine, Sciences and Engineering, DATA 2013, 7- 9 May 2013, Elche, Alicante, Spain, (SCOPUS)	DOI: 10.2495/DATA130171	ISSN: 1743-3517, ISBN: 9781845647087
2.	2013	Bernad, E.S., Craina, M., Bernad, S.I. , Hemodynamics of human placenta, (2013) WIT Transactions on Biomedicine and Health, 17, pp. 39-48., 10th International Conference on Modelling in Medicine and Biology, BIOMED 2013, 24 - 26 April 2013, Budapest, Hungary, (SCOPUS)	DOI: 10.2495/BIO130041	ISSN: 1743-3525 ISBN: 9781845647063
3.	2013	Bernad, S.I. , Totorean, A., Bernad, E.S., Susan-Resiga, R., Particle motion in coronary serial stenoses, (2013) WIT Transactions on Biomedicine and Health, 17, pp. 169-180, Conference name: 10th International Conference on Modelling in Medicine and Biology, BIOMED 2013, 24 - 26 April 2013, Budapest, Hungary, ISSN: 1743-3525, (SCOPUS)	DOI: 10.2495/BIO130151	ISSN: 1743-3525 ISBN: 9781845647063
4.	2013	Bernad, S.I. , Totorean, A., Bernad, E.S., Susan-Resiga, R., Flow in re-stenosed artery after angioplasty, (2013) WIT Transactions on Information and Communication Technologies, 45, pp. 209-220, 1st International Conference on Data Management and Security: Applications in Medicine, Sciences and Engineering, DATA 2013, 7 - 9 May 2013, Elche, Alicante, Spain, (SCOPUS)	DOI: 10.2495/DATA130191	ISSN: 1743-3517, ISBN: 9781845647087
5.	2012	BERNAD Sandor , BERNAD Elena, Coronary venous bypass graft failure, hemodynamic parameters investigation; International Conference Biomedical Engineering (BioMed 2012), February 15-17, 2012 Innsbruck, Austria, pp. 509-515, 2012, (SCOPUS)	DOI: 10.2316/P.2012.764-161	ISBN: 978-0-88986-909-7
6.	2010	S.I. Bernad , A.F. Totorean, V.F. Vinatu, R.F. Susan-Resiga, (2010), Particle hemodynamics analysis after coronary angioplasty, Proceedings of the Word Congress on Engineering 2010, Vol 1, June 30 – July 2, 2010, London, UK, pp: 538-588, in Lecture Notes in Engineering and Computer Science, (SCOPUS)	http://www.iaeng.org/WCE2010/	ISSN: 2078-0958

7. Articole publicate în Proceedings la conferințe internaționale

1. S.C. Georgescu, A.M. Georgescu, **S.I. Bernad**, R. Susan-Resiga, (2009), Overall efficiency of hydropower farms consisting of multiple vertical axis, cross-flow, marine current turbine modules, in Proceedings of the Conference on Modelling Fluid Flow (CMFF'09), September 9-12, Budapest, Hungary, 2009. Vol. II, pp. 752 – 759, ISBN 978-963-420-987-4.
2. **Bernad S.I.**, Georgescu A.-M., Georgescu S.-C., Barbat T., Susan-Resiga R., (2008), *Numerical simulation of 2D unsteady flow around a blade of Achard turbine*, Proceedings of the 24th IAHR Symposium on Hydraulic Machinery and Systems, CD-ROM, Paper #100, 27-31 October, Foz do Iguassu, Brazil, 2008, ISBN: 978-85-60858-13.
3. Muntean S., D. Balint, R. Susan-Resiga, **S. Bernad**, I. Anton, (2006) *Analytical representation of the swirling flow upstream the Kaplan turbine runner for variable guide vane opening*, Proceedings of the 23rd IAHR Symposium on Hydraulic Machinery and Systems, Yokohama, Japan, Paper #151 (on CD-ROM), pp. 1-12. ISBN 4-8190-1809-4.
4. **Bernad S.I.**, Susan-Resiga R., Muntean S., Anton I., (2006) *Numerical Analysis of the Cavitating Flow Around a Hydrofoil*, in Proceedings of the 23rd IAHR Symposium on Hydraulic Machinery and Systems, October 17-21 2006, Yokohama, Japan, #193, pp. 1 -10, (on CD-ROM). ISBN 4-8190-1809-4.
5. Susan-Resiga R.F., Muntean S., **Bernad S.**, Anton I., (2006) *Numerical Simulation and Analysis of the Decelerated Swirling Flows in Hydraulic Turbines*. Lajos T., Vad J. (Eds) In Proceedings of the 13th International Conference on Modelling Fluid Flow (CMFF'06) Budapest, Hungary., Vol. II, pp. 956-963, ISBN: 96306 03829.
6. **S. Bernad**, R.F. Susan-Resiga, L.E. Anton, *Numerical Analysis of the Vortex Flow in the Hydraulic Poppet Valve*, Proceedings of the Conference on Modelling Fluid Flow [CMFF'06], Budapest, Hungary, September 2006, pp: 404-411, Vol 1, ISBN 963 06 0361 6, 2006.
7. **S. Bernad**, A. Irrera, R.F. Susan-Resiga, L.E. Anton, *Numerical analysis of the tree-dimensional unsteady free convection and radiation in an electrical heating element*, Proceedings of the Conference on Modelling Fluid Flow [CMFF'06], Budapest, Hungary, September 2006, pp: 464-470, Vol 1, ISBN 963-060-361-6, 2006.
8. Muntean S., Susan-Resiga R., Balint D., **Bernad S.**, Anton I., (2006) *Numerical Investigation and Analysis of Swirling Flow Upstream of Kaplan Runner for variable discharge*. Lajos T., Vad J. (Eds) in Proceedings of the 13th International Conference on Modelling Fluid Flow (CMFF'06) Budapest, Hungary, Vol. II, pp. 964-971, ISBN: 96306 03829.
9. Elena BERNAD, Elena URDA, Constantin ILIE, **Sandor BERNAD**, Calin MUNTEAN, (2006), Computerized system for the management of the data in obstetrics, Proceedings of Medical Informatics Europe [MIE2006], In European Notes in Medical Informatics, 2006, Vol II, no.2, pp: 275-279, ISSN 1861-3179.
10. Resiga R., Frunza T., Muntean S., **Bernad S.**, (2005) *Development of Turbomachinery computational toolbox CASCADEExpert: Cascade hydrodynamics from theory and numerical algorithms to expert software*, Proceedings of the International Conference Energy – Environment CIEM 2005 Bucharest, Editura Universul Energiei, pp: 3.69 – 3.75, ISBN 973-86948-5-X.
11. **Bernad S.I.**, Bernad E., Resiga R., Muntean S., (2005) *Unsteady flow simulation in the arterial stenosis*, Proceedings of the Southeastern Europe FLUENT Event 2005, May 11-13, Porto Carras Grand Resort, Halkidiki, Greece. (on CD-ROM),
12. **S.I. Bernad**, E. Bernad, R. Resiga, *Numerical Investigations of the Flow in the Pipe Elbow And Medical Applications*, Proceedings of the Southeastern Europe FLUENT Event 2005, May 11-13, Porto Carras Grand Resort, Halkidiki, Greece, on CD-ROM, pg. 10, 2005.
13. **Bernad S.I.**, Bernad E., Mihalas G., (2005), *Geometry influence of the unsteady flow through the arterial stenosis*, Proceedings of Medical Informatics Europe [MIE2005] - Connecting Medical Informatics and Bioinformatics, In European Notes in Medical Informatics, Vol 1, no.1, edited by European Federation for Medical Informatics - EFMI, pp: 1046-1051, ISSN 1861-3179.

14. Muntean S., Susan-Resiga R., **Bernad S.**, Anton I., (2004) *3D Turbulent Flow Analysis of the GMM Francis Turbine for variable discharge*, Proceedings of the 22nd IAHR Symposium on Hydraulic Machinery and Systems, June 29 – July 2 2004, Stockholm, Sweden. (on CD-ROM), Part A., paper A11-2, pp: 1-12.
15. Susan-Resiga R., Muntean S., **Bernad S.**, Anton I., (2003) *Numerical investigation of 3D cavitating flow in Francis turbines*. Proceedings of the Conference on Modelling Fluid Flow [CMFF'03], September 2003, Budapest, Hungary, pp: 950-957, ISBN 963 420 778 2.
16. **S.I. Bernad**, E. Bernad, G.I. Mihalaş, (2003), *Numerical investigation of blood flow in the arterial stenosis*, Proceedings of Medical Informatics Europe [MIE2003]. In Studies in Health Technology and Informatics, vol 95, The New Navigators: from Professionals to Patients, Editors: R. Baund, M. Fieschi, P. Le Beux, P. Ruch, IOS Press Amsterdam, pp: 3-8, ISSN 0926-9630, (**SCOPUS**).
17. **Bernad S.**, Susan-Resiga R., Muntean S., (2002) *Fluent Numerical Simulation of the Mold Filling Process for Titanium Dental Casting Applications*, Proceedings of the South-Eastern Europe Fluent Users Group Meeting, 31 October – 2 November 2002, Thessaloniki, Greece (on CD-ROM), pp. 1-12.
18. **Bernad S.**, Susan-Resiga R., Anton I., Ancuşa V., (2001), *Numerical Simulation of Cavitating Flow in Hydraulic Poppet Valve - part II*, 2nd Southeastern Europe Fluent Users Group Meeting, 31 October - 2 November , Bucureşti, România (on CD-ROM), pg. 12.
19. Resiga R.F., **Bernad S.I.**, Anton I., (2001), *Vortex Flow Modeling Inside the Poppet Valve Chamber*, Proceedings of the Seventh Scandinavian International Conference on Fluid Power, SICFP'01, May 30 - June 1, Linköping, Finland, pp: 131-145.
20. **S.I. Bernad**, (1995) *A study about the influence of the geometry of the hydraulic tract on the functional parameters of the shut-down pressure valve*, Proceedings of the International Conference of Hydro-Pneumatic Power Systems, Timisoara, Romania, part II, pp: 21-32.

8. Articole publicate în jurnale naționale de specialitate

1. **Sandor I. Bernad**, E. Bernad, Cosmin Brisan, Tiberiu Barbat, Vlad Albulescu, (2010), Computational hemodynamics analysis in realistic 3-D geometries of the human coronary atherosclerosis, *Timisoara Medical Journal*, Vol 60, supplement 2, pp: 143-149, ISSN 1583-5251, (**Index Copernicus**).
2. Vinatu V.F., Totorean A.F., **Bernad S.I.**, Susan-Resiga R.F., (2010), Hemodynamics for the by-pass flow for anastomotic junction angle of 60 degree, *Scientific Bulletin of the Politehnica University of Timisoara, Romania, Transactions on Mechanics*, Tom 55 (69), Fasc. 1, pp: 1-8, ISSN 1224-6077.
3. Elena Bernad, Cosmin Brisan, **Sandor Bernad**, Vlad Albulescu, Marius Craina, (2010), Pathology of the umbilical cord, *Timisoara Medical Journal*, Vol 60, supplement 2, pp: 139-142, ISSN 1583-5251(**Index Copernicus**).
4. Elena Bernad, Cosmin Brisan, Vlad Albulescu, Marius Craina, **Sandor Bernad**, (2010), Single umbilical artery, *Timisoara Medical Journal*, Vol 60, supplement 2, pp: 136-138, ISSN 1583-5251(**Index Copernicus**).
5. C. Tanasa, **S.I. Bernad**, R. Susan-Resiga, A. Ersek, (2009), Hemodynamic analysis of an abdominal aortic aneurysm in patient specific model, *Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics*, Issue 1, Tom 54(68), pp: 17-22, ISSN 1224-6077.
6. **S.I. Bernad**, P.F. Vassne, E. Bernad, T.A. Nyari, L. Balosin, (2009), Health project between neighbouring countries. The CSOTI-HPV project, *Timisoara Medical Journal*, vol 59, Suppl. 4, pp: 89-93, ISSN 1583-5251(**Index Copernicus**).
7. A.F. Totorean, V.F. Vinatu, **S.I. Bernad**, R.F. Susan-Resiga, (2009), *Hemodynamic analysis of the residual stenoses after coronary angioplasty*, *Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics*, Fascicola 3, Tom 54(68), pp: 49-56, ISSN 1224-6077.
8. Georgescu S.C., Georgescu A., **Bernad S.I.**, (2009), Numerical computation of the efficiency of a hydropower farm model, equipped with Achard turbines, tested in water channel, *ACTA TECHNICA NAPOCENSIS, Series: Applied Mathematics and Mechanics*, No. 52, vol. II, pp. 295 – 300, ISSN 1221-5872.
9. Georgescu S.-C., Georgescu A.-M., **Bernad S. I.**, (2008) Innovative simplified 2D numerical modelling of the inter-influence of vertical axis cross-flow turbines mounted in hydropower farms, *Scientific Bulletin "Politehnica" University of Timisoara, Transactions on Mechanics*, 53(67), No 3, pp. 57-62, ISSN 1224-6077.
10. Georgescu A.-M., Georgescu S.-C., **Bernad S. I.**, Hasegan L. V., (2008), Staggered arrangement of three bladed, vertical axis, cross-flow turbine towers in farms, *Scientific Bulletin "Politehnica" University of Timisoara, Transactions on Mechanics*, 53(67), No 3, pp. 63-68, ISSN 1224-6077.
11. **Bernad S. I.**, Barbat T., Georgescu A.-M., Georgescu S.-C., Susan-Resiga R., (2008) Unsteady Flow Simulation in the Achard Turbines Mounted in Hydropower Farms, *Scientific Bulletin "Politehnica" University of Timisoara, Transactions on Mechanics*, 53(67), No 3, pp. 69-74, ISSN 1224-6077.
12. **Sandor BERNAD**, Andrei Mugur-GEORGESCU, Sanda-Carmen GEORGESCU, Daniel BALINT, Romeo SUSAN-RESIGA, (2007), 2D Unsteady Flow Simulation in the Achard turbine, *Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics*, Tom 52(66), No 3, pp: 23 - 28, 6 pg., ISSN 1224-6077.
13. Sanda-Carmen GEORGESCU, Andrei Mugur-GEORGESCU, **Sandor BERNAD**, (2007), Two-dimensional of the unsteady flow through the Achard turbine: COMSOL MULTIPHYSICS versus FLUENT results, *U.P.B. Sci. Bull., Series C*, Vol. 69, No.4, pp: 635-642, (**SCOPUS**).
14. Andrei Mugur-GEORGESCU, Sanda-Carmen GEORGESCU, **Sandor BERNAD**, Costin I. COȘOIU (2007), COMSOL MULTIPHYSICS versus FLUENT: 2D numerical simulation of the stationary flow around a blade of the Achard turbine", *Scientific Bulletin of the "Politehnica"*

- University of Timisoara, Transactions on Mechanics, Tom 52(66), No 3, pp: 13-22, ISSN 1224-6077.
15. Muntean S., Susan-Resiga R., Bosioc A., **Bernad S.**, Anton I., (2007), *Water jet control technique for swirling flows in Francis turbines diffuser*, Universitatea Politehnica Bucuresti Scientific Bulletin, Series C, Vol. 69, No.4, pp: 665-672., ISSN 1224-6077, (**SCOPUS**).
 16. Susan-Resiga R., Muntean S., Bosioc A., Stuparu A., Milos T., Baya A., **Bernad S.**, Anton L.E., (2007), *Swirling Flow Apparatus and Test Rig for Flow Control in Hydraulic Turbines Discharge Cone*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 52(66), No 6, pp: 203 - 216, ISSN 1224-6077.
 17. Susan-Resiga R., Muntean S., Hasmatuchi V., **Bernad S.**, (2007), *Development of a swirling flow control technique for Francis turbines operated at partial discharge*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 52(66), No 3, pp: 1 - 12, ISSN 1224-6077.
 18. Muntean S., Susan-Resiga R.F., Balint D., **Bernad S.**, Anton I., (2006) *Numerical investigation of accelerated swirling flow in Kaplan turbines*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 51(65), No 3, pp: 37 - 44, ISSN 1224-6077.
 19. Susan-Resiga R.F., Muntean S., **Bernad S.**, Hasmatuchi V., Anton I., Avellan F., (2006) *Inviscid vortex breakdown in decelerated swirling flows and flow control methods*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 51(65), No 3, pp: 15 – 22. ISSN 1224-6077.
 20. **Bernad S.**, Susan-Resiga R.F., Muntean S., (2006) *Analysis of the recirculation region behind bluff bodies*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 51(65), No 3, pp: 45 - 50, ISSN 1224-6077.
 21. **Bernad S.I.**, Susan-Resiga R., Bernad E., Muntean S., (2006) *Computational analysis of blood flow in a curved tube model*, Timișoara Medical Journal, Vol 56, Supplement 4, pp: 83-86, ISSN 1583-5251(**Index Copernicus**).
 22. **Bernad S.I.**, Susan-Resiga R., Bernad E., Gaita D., (2006) *Geometry influence of the blood flow in the large artery: steady flow simulation in a stenotic arteries*, Timișoara Medical Journal, Vol 56, Supplement 4, pp: 83-86, ISSN 1583-5251(**Index Copernicus**).
 23. Muntean S., Balint D., Resiga R., **Bernad S.**, Anton I., (2005) *A numerical study of the 3d swirling flow upstream to the Kaplan turbine runner at off-design operating conditions*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 50(64), Special Issue, pp: 97-104, ISSN 1224-6077.
 24. Resiga R., Frunza T., Muntean S., **Bernad S.**, Armeanu C., (2005) *CASCADexpert: Software development for cascade hydrodynamics*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 50(64), Special Issue, pp: 59-68, ISSN 1224-6077.
 25. Resiga R., Milos T., Baya A., Muntean S., **Bernad S.**, (2005) *Mathematical and numerical models for axisymmetric swirling flows for turbomachinery applications*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 50(64), Special Issue, pp: 47 - 58, ISSN 1224-6077.
 26. Balint D., Resiga R., Muntean S., **Bernad S.**, (2005) *Swirling flow optimization in the spiral case and distributor of Kaplan hydraulic turbines*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 50(64), Special Issue, pp: 105 - 112, ISSN 1224-6077.
 27. **Bernad S.**, Muntean S., Bernad E., Resiga R., (2005) *Numerical simulation of turbulent flow in plane sudden expansion*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 50(64), No 2, pp: 29 - 36, ISSN 1224-6077.
 28. **Bernad S.**, Muntean S., Resiga R., Anton I., (2005) *Vorticity in hydraulic power equipment*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 50(64), Special Issue, pp: 185 - 191, ISSN 1224-6077.
 29. Muntean S., Susan-Resiga R., **Bernad S.**, Anton I., (2004) *Analysis of the GAMM Francis Turbine Distributor 3D Flow for the Whole Operating Range and Optimization of the Guide*

- Vane Axis Location*, Scientific Bulletin of the 'Politehnica' University of Timisoara, Transactions on Mechanics, Tom 49(63), Special Issue, pp: 131- 136, ISSN 1224-6077.
30. **Bernad S.**, Susan-Resiga R., Muntean S., Anton I., (2004), *Vortex Flow Analysis in Poppet Valve Chamber*, Scientific Bulletin of the 'Politehnica' University of Timisoara, Transactions on Mechanics, Tom 49(63), Special Issue, pp: 325-330, ISSN 1224-6077.
31. **Bernad S.**, Susan-Resiga R., Muntean S., Anton I., (2004) *Numerical Simulation of Two-Phase Cavitating Flow in Turbomachines*, Scientific Bulletin of the 'Politehnica' University of Timisoara, Transactions on Mechanics, Tom 49(63), Special Issue, pp: 439- 446, ISSN 1224-6077.
32. **Bernad S.**, Muntean S., Susan-Resiga R., Anton I., (2004) *Cavitation Phenomena in Hydraulic Poppet Valve*, Scientific Bulletin of the 'Politehnica' University of Timisoara, Transactions on Mechanics, Tom 49(63), no. 2, pp: 65- 72, ISSN 1224-6077.
33. **Bernad S.**, Muntean S., Susan-Resiga R., Anton I., (2004) *Multiphase Modeling of Cavitating Flow*. Scientific Bulletin of the 'Politehnica' University of Timisoara, Transactions on Mechanics, Tom 49(63), no. 2 pp: 73-80, ISSN 1224-6077.
34. **Bernad S.**, Susan-Resiga R., Bernad E., Gaita D., Mihalas G.I., Munteanu I., (2004), *Computerized Study of the Blood Flow in Arterial Stenosis*. Timisoara Medical Journal, 54, no. 2, pp. 142-145, ISSN 1583-5251(**Index Copernicus**).
35. E. Bernad, **S.I. Bernad**, G.I. Mihalas, I. Munteanu, (2003), *Management of clinical data in sterility, caused by tubal problems*, Cercetări Experimentale Medico-Chirurgicale, Vol X, nr. 1, pp: 89-90, ISSN 1223-1533.
36. C. Sinescu, R. Susan-Resiga, **S. Bernad**, M. Romînu, S. Lakatos, (2002), *Studii numerice ale turnării aliajelor de Cr-Co în Stomatologie*, Medicina Stomatologică, Vol 6, nr.5, pp: 18-22, ISSN 1453-1224.
37. E.S. Bernad, **S.I. Bernad**, G.I. Mihalas, I. Munteanu, (2002), *Electronic management of the data in human assisted reproduction*, Timișoara Medical Journal, Vol 52, nr 3-4, pp: 16-20, ISSN 1583-5251(**Index Copernicus**).
38. **Bernad S.I.**, Resiga R.F., Anton I., (2000), *Poppet Angle and Displacement Influence on the Vortices Behavior in Hydraulic Poppet Valves*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 45(59), Special Issue, vol 1; pp:15-22, ISSN 1224-6077.
39. Resiga R.F., **Bernad S.I.**, Anton I., (2000), *A Theoretical Model for the Vortex Flow in Hydraulic Poppet Valve*, Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 45(59), Special Issue, vol 1; pp:167-174, ISSN 1224-6077.
40. **S.I. Bernad**, (1999), *Velocity and pressure distribution in hydraulic poppet valve*. Scientific Bulletin of the "Politehnica" University of Timisoara, Transactions on Mechanics, Tom 44(58), Special Issue, pp: 385-392, ISSN 1224-6077.

9. Articole publicate la conferințe naționale de specialitate

1. Romeo SUSAN-RESIGA, **Sandor I. BERNAD**, Tiberiu BĂRBAT, Elena S. BERNAD, (2010), *Blood Flow in Heart By-pass. Numerical Investigations*, Conferința Progrese în Simularea Echipamentelor și Proceselor Industriale. Soluții Eficiente cu ANSYS & FLUENT”, 29-30 Mai, Sinaia, CD-ROM, 10 pages, ISBN: 975-686-521-612-7.
2. **Bernad S. I.**, Georgescu A.-M., Georgescu C., Bărbat T., (2008) *Marine turbine development. Fluent numerical investigations*, In: Conferința Progrese în Simularea Echipamentelor și Proceselor Industriale. Soluții Eficiente cu ANSYS & FLUENT, 29-30 Mai, Sinaia, CD-ROM, 8 pages, ISBN: 975-686-521-612-7.
3. Georgescu A.-M., Georgescu S.-C., **Bernad S. I.**, (2008), *Inter-influence of the vertical axis, cross-flow, marine current turbines mounted in farms*, Proceedings of the Conference Excellence Research – A Way to Innovation CEEEX2008, July 27-29, Brasov 2008, vol. 2, Editura Tehnica, eds. N. Vasiliu & S. Lanyi, pp. 192/1-192/6.
4. **Bernad S.**, Resiga R., Muntean S., Anton L.E., (2006) *Numerical analysis of the hydrodynamic field inside the hydraulic poppet valve chamber* in Proceedings of the Romanian Fluent Users Meeting, pp: 72-77, Editura Printech, ISBN 973-718-443-2.
5. Resiga R., **Bernad S.**, Muntean S., Anton I., (2003) *Analysis and development of cavitation flow model and FLUENT implementation*, Proceedings of Workshop on Numerical Methods in Fluid Mechanics and FLUENT Applications, Editura Orizonturi Universitare, Timișoara, pp: 11-21. ISBN 973-638-022-X.
6. Muntean S., Resiga R., **Bernad S.**, Anton I., (2003), *Mixing interface method for 3D turbulent flow analysis applied to Francis turbine*, Proceedings of Workshop on Numerical Methods in Fluid Mechanics and FLUENT Applications, Editura Orizonturi Universitare, Timișoara, pp. 22-36. ISBN 973-638-022-X.
7. Muntean S., **Bernad S.**, Resiga R., Anton I., (2003), *3D cavitating flow in hydraulic Francis turbines*, Proceedings of Workshop on Numerical Methods in Fluid Mechanics and FLUENT Applications, Editura Orizonturi Universitare, Timișoara, pp. 37-45. ISBN 973-638-022-X.
8. **Bernad S.**, Resiga R., Muntean S., Anton I., (2003), *2D versus 3D flow in hydraulic poppet valves*, Proceedings of Workshop on Numerical Methods in Fluid Mechanics and FLUENT Applications, Editura Orizonturi Universitare, Timișoara, pp. 121-126. ISBN 973-638-022-X.
9. Anton L., Baya A., Resiga R., **Bernad S.**, Muntean S., Stuparu A., (2003), *Numerical and experimental investigation of the flow in the pipe elbow*, Proceedings of Workshop on Numerical Methods in Fluid Mechanics and FLUENT Applications, Editura Orizonturi Universitare, Timișoara, pp. 187-194. ISBN 973-638-022-X.
10. **S. Bernad**, Susan-Resiga R., Anton I., Ancușa V., (2001), *Numerical Simulation of Cavitating Flow in Hydraulic Poppet Valve*. Proceedings of the Workshop on Numerical Simulation for Fluid Mechanics and Magnetic Liquids, Editura Orizonturi Universitare, Timișoara, pp: 140 – 154, ISBN 973-8109-70-1.

Dr.ing. Bernad Sandor Ianos, CS I