

Universitatea POLITEHNICA din București
Facultatea Energetică
Departamentul Producere și Utilizare a Energiei

LISTA DE LUCRĂRI
Candidat: Prof. Dr. Ing. Daniel Dupleac

I. TEZA (E) DE DOCTORAT (T)

T.1. *Contributii la studiul regimurilor nestationare din circuitul primar al unei centrale nucleare* (Universitatea “Politehnica” Bucuresti, ianuarie 1998).

II. CĂRȚI PUBLICATE (C)

Ca – Cărți / cursuri (manuale) pentru uzul studentilor, publicate în edituri recunoscute.

Ca.1. **D. Dupleac**, I. Prisecaru – ***Introducere in termohidraulica reactorilor nucleari CANDU***, Editura Proxima 2005, 430 pagini, ISBN 973-7636-02-3

Ca.2. I. Prisecaru, **D. Dupleac**, I. Opris – ***Simularea proceselor dinamice din echipamentele si sistemele termoenergetice***, Editura Proxima 2006, 163 p. ISBN 973-7636-16-3

Ca.3. **D. Dupleac**, ***Introducere în analiza termohidraulică a reactorilor CANDU***, Editura Universitara Carol Davila 2013, 173 p. ISBN 978-973-708-713-3.

Ca.4. I. Prisecaru, **D. Dupleac**, ***Sistemele centralelor nucleare electrice CANDU***, Editura Universitara Carol Davila 2013, 291 p. ISBN 978-973-708-712-6.

Cb - Cărți de specialitate publicate în edituri recunoscute (autor, coautor, editor).

Cb.1. V. Ionescu, M. Badea, D. Vidican, I. Prisecaru, **D. Dupleac** – ***Extinderea duratei de viata a CNE (cu reactori CANDU-6), aspecte tehnice, economice si de securitate nucleara***, Editura Printech, 2008, 82 p., ISBN 978-973-718-960-8

Cb.2. Cao, X.; Choi, J.-H.; **Dupleac, D**; Kim, D.-H.; Lele, H.G.; Nayak, A.K; Nitheanandan, T.; Rammohan, H. P. - ***Benchmarking Severe Accident Computer Codes for Heavy Water Reactor Applications*** - IAEA TECDOC SERIES, TECDOC No. 1727, International Atomic Energy Agency, Vienna, 2013, 311 p. ISSN 1011-4289; no. 1727; ISBN 978-92-0-114413-3

III. ALTE MATERIALE PUBLICATE (I,D)

I - Culegeri și Îndrumare publicate (separate în edituri cu ISBN și în tipografiile locale/de instituții sau de uz intern).

- I.1. **D. Dupleac**, R. Dupleac – *Termohidraulica instalațiilor nucleare*, Editura Bren Prod Srl, Bucuresti, 2000, 178 p.
- I.2. I. Prisecaru, **D. Dupleac** - *Probleme de energetica nucleara*, Editura UPB, Bucuresti, 1993, 228 p.
- I.3. N. Mihailescu, **D. Dupleac** – *Teoria reactoarelor nucleare - Probleme*, Editura UPB, Bucuresti, 1999, 147p.
- I.4. V. Athanasovici, I.S. Dumitrescu, C. Raducanu, R. Patrascu, **D. Dupleac**, R. Dupleac – *Utilizarea energiei termice, Termoenergetica industrială și termoficare, Energetica operațiilor și proceselor tehnologice industriale, Transportul și distribuția agenților termici*, Editura Printech, Bucuresti, 1999, 176 p ISBN 973-9402-50-X.
- I.5. **D. Dupleac**, M. Dumitrescu, A. Budu – *Termohidraulica sistemelor și echipamentelor specifice circuitului primar CNE – Indrumar de proiectare*, Editura UPB, Bucuresti, 2004, 44 p.

D - Alte lucrări publicate: capitole publicate în volume colective, capitole teoretice redactate, sisteme de laborator funcționale etc.

- D.1 **D. Dupleac**, C. Valache – *Termohidraulica circuitului primar*, Curs NA-107, DDRU-CNE PROD Cernavoda, aprilie 2000, 75 p.

IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R,V)

Ris - Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters, sau indexate în alte Baze de Date Internaționale - BDI specifice domeniului, care fac un proces de selecție a revistelor pe baza unor criterii de performanță).

- Ris.1 Prisecaru, I., **Dupleac, D.**, Chirica, T. and Havris, A. *Nuclear energy development in Romania*, World Review of Science, Technology and Sustainable Development, Vol. 4, Nos. 2/3, (2007) pp.268–283. Indexata BDI – SCOPUS, ISSN online: 1741-2234, ISSN print: 1741-2242
- Ris.2 M. Mladin, **D. Dupleac**, I. Prisecaru *SCDAP/RELAP5 application to CANDU6 fuel channel analysis under postulated LLOCA/LOECC conditions*, Nuclear Engineering and Design 239 (2009) 353–364, **Indexata ISI**

WOS:000263458400019, ISSN: 0029-5493, (factor de impact 2009: 0.785; 2012 – 0.805)

- Ris.3** M. Mladin, **D. Dupleac**, I. Prisecaru *Modifications in SCDAP code for early phase degradation in a CANDU fuel channel*, Ann. Nucl. Energy, Volume 36, Issue 5, May, pages 634-640 (2009), **Indexata ISI WOS:000266185400012**, ISSN: 0306-4549, (factor de impact 2009: 0.604; 2012 – 0.800)
- Ris.4** **D. Dupleac**, M. Mladin, I. Prisecaru *Generic CANDU 6 plant severe accident analysis employing SCDAPSIMRELAP5 code*, Nuclear Engineering and Design Volume: 239 Issue: 10 Pages: 2093-2103 (2009), **Indexata ISI WOS:000270411500039**, ISSN: 0029-5493, (factor de impact 2009: 0.785; 2012 – 0.805)
- Ris.5** Gheorghe Negut, Alexandru Catana, Ilie Prisecaru, **D. Dupleac** *Severe accident development modeling and evaluation for CANDU*, Ann. Nucl. Energy Volume: 36 Issue: 9 Pages: 1424-1430, (2009), **Indexata ISI WOS:000270644500016**, ISSN: 0306-4549, (factor de impact 2009: 0.604; 2012 – 0.800)
- Ris.6** M. Mladin, **D. Dupleac**, I. Prisecaru, D. Mladin *Adapting and applying SCDAP/RELAP5 to CANDU in-vessel retention studies*, Annals of Nuclear Energy, Volume 37, Issue 6, June 2010, pg. 845-852, **Indexata ISI WOS:000278504800009**, ISSN: 0306-4549, (factor de impact 2009: 0.724; 2012 – 0.800)
- Ris.7** Stefan Nicolici, **Daniel Dupleac**, Ilie Prisecaru, *Numerical analysis of debris melting phenomena during late phase CANDU 6 severe accident*, Nuclear Engineering and Design, Volume 254, January 2013, Pages 272-279, **Indexata ISI WOS:000315002200027**, ISSN: 0029-5493, (factor de impact 2012 – 0.805)

Rns - Reviste de specialitate de circulație națională recunoscute de CNCSIS.

- Rns.1** Andrei Budu, **Daniel Dupleac**, *Pressure tube oxidation heat addition in an accident in a CANDU nuclear power plant*, U.P.B. Science Bulletin, Series C, Vol. 73, Iss. 2, 2011, Indexata SCOPUS ISSN 1454-234x (CNCSIS B+ Cod 50)
- Rns.2** Prodea, I., Rizoiu, A., Prisecaru, H., **Dupleac, D.**: *Void reactivity evaluation using hafnium absorber in advanced CANDU fuel cells*, UPB Scientific Bulletin, Series C: Electrical Engineering 72 (2) , pp. 239-246 , 2010 Indexata SCOPUS ISSN 1454-234x (CNCSIS B+ Cod 50)
- Rns.3** Catana, A., Prisecaru, I., **Dupleac, D.**, Nicolae, D. : *Computational fluid dynamic approach for CANDU6 and ACR1000 fuel channel coolant flow*, UPB Scientific Bulletin, Series D: Mechanical Engineering 72 (1) , pp. 167-175 , 2010, Indexata SCOPUS ISSN 1454-2358 (CNCSIS B+ Cod 50)
- Rns.4** Prisecaru, I., Nită, I.P., **Dupleac, D.** : *Influence of preheater loss in regeneration efficiency on the secondary circuit*, UPB Scientific Bulletin, Series C: Electrical

Engineering 72 (1) , pp. 153-162 , 2010, Indexata SCOPUS ISSN 1454-234x (CNCSIS B+ Cod 50)

Rns.5 Mladin, M., **Dupleac, D.**, Prisecaru, I.: *Evaluation of the RELAP5/SCDAP accident analysis code applicability to CANDU nuclear reactors*, UPB Scientific Bulletin, Series C: Electrical Engineering 71 (4) , pp. 143-156, 2010, Indexata SCOPUS ISSN 1454-234x (CNCSIS B+ Cod 50)

Rns.6 **Dupleac, D.** : *Neutronic flux reconstruction method within nodes* , UPB Scientific Bulletin, Series A: Applied Mathematics and Physics 60 (3-4) , 1998, Indexata SCOPUS ISSN 1223-7072 (CNCSIS B+ Cod 50)

Rns.7 **Dupleac, D.**: *Transverse leakage approximations for analytical nodal method applied to CANDU reactors. I. Steady state case*, UPB Buletin Stiintific Politehnica University of Bucharest, Scientific Bulletin Series C (Electrical Engineering), v 60, n 3-4, 1998, p 29-36 Indexata Engineering Village (INSPEC) ISSN 1454-234x (CNCSIS B+ Cod 50)

Rns.8 **Dupleac, D.**: *Transverse leakage approximations for analytical nodal method applied to CANDU reactors. II. Transient case*, UPB Buletin Stiintific Politehnica University of Bucharest, Scientific Bulletin Series C (Electrical Engineering), v 60, n 3-4, 1998, p 59-66 Indexata Engineering Village (INSPEC) ISSN 1454-234x (CNCSIS B+ Cod 50)

Rns.9 Prisecaru, I.; **Dupleac, D.**: *Saturated steam turbine operation modeling with application at NPP Cernavoda*, University "Politehnica" of Bucharest, Scientific Bulletin Series C: Electrical Engineering, v 68, n3, p 3-14, 2006 Indexata Engineering Village (INSPEC) ISSN 1454-234x (CNCSIS B+ Cod 50)

Rns.10 Stefan Nicolici, Ilie Prisecaru, **Daniel Dupleac**, *Two-phase flow CFD modeling for evaluation of particulate erosion*, U.P.B. Sci. Bull., Series D, Vol. 75, Iss. 1, pg 187-198 , 2013, Indexata Google Scholar ISSN 1454-2358 (CNCSIS B+ Cod 50)

Rns.11 Alexandru Catana, Nicolae Danila, Ilie Prisecaru, **Daniel Dupleac**- *Pressure drop variation as a function of axial and radial power distribution in CANDU fuel channel with standard and CANFLEX 43 bundles*, Buletinul UPB, vol.69, nr.4, Seria C, Inginerie Electrica, 2007 Indexata INSPEC ISSN 1454-234x (CNCSIS B+ Cod 50)

Rns.12 Melania Bîgu, Mircea Tenescu, Iulian Pavel Nita, Ilie Prisecaru, **Daniel Dupleac** - *Reactor, turbine and feedwater regenerative system - Assembly behaviour*, Buletinul UPB, vol.69, nr.4, Seria C, Inginerie Electrica, 2007 Indexata INSPEC ISSN 1454-234x (CNCSIS B+ Cod 50)

Rns.13 Dan Vidican, Marian Badea, Virgil Ionescu, Ilie Prisecaru, **Daniel Dupleac**- *CANDU-6 NPP life extension aspects*, Buletinul UPB, vol.69, nr.4, Seria C, Inginerie Electrica, 2007 Indexata INSPEC ISSN 1454-234x (CNCSIS B+ Cod 50)

- Rns.14** Negut, Gheorghe; Catana, Alexandru; Prisecaru, Ilie; **Dupleac, Daniel**: *CANDU severe accident analysis*, Scientific Bulletin - Politehnica University of Bucharest. Series C, Electrical Engineering, v. 69(4), 2007, p. 741-748 Indexata INSPEC ISSN 1454-234x (CNCSIS B+ Cod 50)
- Rns.15** Mladin, Mirea; Mladin, Daniela; Prisecaru, Ilie; Danila, Nicolae; **Dupleac, Daniel**: *PSA support safety analysis using RELAP5 for the reactivity insertion event in 14 MW TRIGA react*, Scientific Bulletin - Politehnica University of Bucharest. Series C, Electrical Engineering, v. 69(4), ISSN 1454-234X, 2007, p. 779-786 Indexata INSPEC ISSN 1454-234x (CNCSIS B+ Cod 50)
- Rns.16** **D. Dupleac**, I. Prisecaru – *CANDU Channel Blockage Analysis using the RELAP5 code*, Buletin Stiintific UPB Series C: Electrical Engineering, vol. 66, 2004, No. 1, pg. 23-29. ISSN 1454-234x Indexata INSPEC (CNCSIS B+ Cod 50)
- Rns.17** **D. Dupleac**, I. Prisecaru, M. Constantinescu - *The Real Time Simulation of The Transitory Thermal Regimes in The Fuel Rods of Nuclear Reactors*, Buletin Stiintific UPB Series C: Electrical Engineering, vol. 57-58, 1995-1996, No. 1-4, pg. 13-20 ISSN 1220-3033 (CNCSIS B+ Cod 50)
- Rns.18** I. Prisecaru, **D. Dupleac**, M. Constantinescu – *Application of Nodal Method to Space-Time neutronic Analysis of CANDU Reactors*, Buletin Stiintific UPB Series C: Electrical Engineering, vol. 59, 1997, No. 1-4, pg. 15-20 ISSN 1220-3033 (CNCSIS B+ Cod 50)
- Rns.19** **D. Dupleac** – *Two-Group Analytic Nodal Method Applied to Space-Time Kinetics of CANDU Reactors*, Buletin Stiintific UPB Series C: Electrical Engineering, vol. 61, 1999, No. 3-4, pg. 15-25, ISSN 1454-234X (CNCSIS B+ Cod 50)
- Rns.20** **D. Dupleac** – *A Thermalhydraulic Model for CANDU Fuel Channel*, Buletin Stiintific UPB Series C: Electrical Engineering, vol. 61, 1999, No. 3-4, pg. 97-107, ISSN 1454-234X (CNCSIS B+ Cod 50)
- Rns.21** Elena DINCA, **Daniel DUPLEAC**, Ilie PRISECARU, *Verification by analytical means of the efficiency of some accident management measures for SBO ataCANDU-6 NPP*. International Nuclear Safety Journal, vol. 4 issue 4, 2015, pages 9 – 22 (Google Academic)

Rno - Alte reviste de specialitate de circulație națională.

- Rno.1** I. Prisecaru, **D. Dupleac**, M. Constantinescu, I. Munteanu, G. Darie, I. Motoiu – *Modelarea si simularea regimurilor tranzitorii pentru partea clasica a CNE. Aplicatie la CNE Cernavoda*, Energetica, nr.7, iunie 1998, pg. 330-334, ISSN 1220-5133
- Rno.2** **D. Dupleac**, I. Prisecaru – *A Nodal Fluxes Reconstruction Method for CANDU Reactors*, Energia Nucleara, vol. 9, no.1-4, 1998, pg. 24-26, ISSN 1220-5508

- Rno.3 D. Dupleac**, I. Prisecaru – *Modelarea termohidraulicii canalelor de combustibil ale reactorilor de tip CANDU*, Energia Nucleara, vol. 9, no.1-4, 1998, pg. 42-44, ISSN 1220-5508
- Rno.4 D. Dupleac**, I. Prisecaru– *Simularea comportarii elementului combustibil in regim tranzitoriu*, Energetica, nr.3, martie 1999, pg. 122-125, ISSN 1220-5133
- Rno.5 I. Prisecaru, D. Dupleac**– *Studiu comparativ al modelelor matematice utilizate la calculul termohidraulic pentru analizele de securitate nucleara*, Energetica, nr.3, martie 1999, pg. 125-130, ISSN 1220-5133
- Rno.6 I. Prisecaru, D. Dupleac** – *Simulator didactic pentru reactorul CANDU 600*, Energia Nucleara, vol. 11, no.1-2, 2000, pg. 33-37, ISSN 1220-5508
- Rno.7 D. Dupleac**, I. Prisecaru – *Relap5-Posibilitate de verificare a analizelor de securitate nucleara pentru CANDU 6*, Energia Nucleara, vol. 16, no.1-2, 2004, pg. 33-36, ISSN 1220-5508
- Rno.8 I. Prisecaru, D. Dupleac**, A. Constantinescu, I. Nita – *Modelarea matematica a functionarii turbinelor cu abur saturat in regimuri nestationare cu aplicatie la CNE Cernavoda*, Energia Nucleara, vol. 16, no.3-4, 2004, pg. 40-46, ISSN 1220-5508
- Rno.9 Virgil Ionescu, Marian Badea, Dan Vidican, Ilie Prisecaru, Daniel Dupleac**, *Extinderea duratei de viață a CNE CANDU 6, aspecte tehnice, economice și de securitate nucleară* Energia Nucleara, vol.20/nr.1-2/2009, ISSN1220-5508
- Rno.10. R. Dupleac, C. Ciucasu, D. Dupleac, M. Ionescu** – *Motoare termice in termoficare, solutii pentru ieftinirea producerii energiei electrice si a caldurii*, Buletinul gospodariei comunale si locative, mai 1998, pg.13-16
- Rno.11. D. Dupleac, M. Dupleac, R. Dupleac, M. Ionescu** – *Utilizarea schimbatoarelor de caldura tip placa*, Buletinul ANPPGCL, martie-aprilie 1999, pg.40-42
- Rno.12. M. Dupleac, D. Dupleac, R. Dupleac, M. Ionescu** – *Producerea de abur prin recuperarea caldurii gazelor evacuate de o instalatie cu turbine cu gaze*, Buletinul ANPPGCL, iulie-august 1999, pg.31-35

Vis- Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate, indexate ISI Thomson Reuters sau indexate în alte Baze de Date Internationale - BDI specifice domeniului, care fac un proces de selecție a publicațiilor pe baza unor criterii de performanță.

- Vis.1. I. Prisecaru, D. Dupleac, Adrian Constantinescu** – *CANDU Steam Generators Modelling Using CompGen for MMS Package* – Proceedings of international conference ESMc'2004 (European Simulation and Modelling Conference), 25-27 oct 2004, pg 301-306 Paris, France, **Indexata ISI WOS:000230167800049**, ISBN: 90-77381-14-7
- Vis.2. I. Prisecaru, D. Dupleac** – *CANDU Saturated Steam Turbine Modelling using COMPGEN for MMS package* – Proceedings of international conference

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pg 401-406, Porto, Portugal, **Indexata ISI WOS:000235515700062**, ISBN: 90-
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- Vis.3.**I. Prisecaru, **D. Dupleac**, P. Ghitescu, L.Biro – *A Parametric Study of a Large Break in Reactor Inlet Header of CANDU 6 Reactors using RELAP5 Code* –2006 International Congress on Advances in Nuclear Power Plants, ICAPP '06, June 4-8, 2006, Reno, NV, USA , Proceedings of the 2006 International Congress on Advances in Nuclear Power Plants, ICAPP'06 2006 , pp. 1116-1125 , 2006 indexata SCOPUS Code 68837 ISBN: 0894486985;978-089448698-2
- Vis.4.** I. Prisecaru, **D. Dupleac**, Nita Iulian – *"Thermalhydraulic modeling and analysis of CANDU Shutdown Cooling System"* – Proceedings of international conference ESMc'2006 (European Simulation and Modelling Conference), 23-25 oct 2006 , pg 141-146, Toulouse, France, **Indexata ISI WOS:000245528900027**, ISBN: 978-90-77381-30-4
- Vis.5.** **D. Dupleac**, I. Prisecaru, P. Ghitescu, G. Negut – *Thermalhydraulic analysis of CANDU 6 100% reactor outlet header break using RELAP5 code* – Societe Francaise d'Energie Nucleaire - International Congress on Advances in Nuclear Power Plants - ICAPP 2007, "The Nuclear Renaissance at Work" 1 , pp. 246-255, ICAPP '07, May 13-18, 2007, Nice, France, indexata SCOPUS Code 72093 ISBN: 0894480588;978-089448058-4
- Vis.6.** G. Negut, S. Covaci, I. Prisecaru, **D. Dupleac** – *TRIGA Spent Fuel Bundles Safe Storage* – 2007 International Congress on Advances in Nuclear Power Plants, ICAPP '07, May 13-18, 2007, Nice, France, Volume 1, 2008, Pages 157-162 indexata SCOPUS Code 73704, ISBN: 978-160423871-6
- Vis.7.** Catana, A., Danila, N., Prisecaru, I., **Dupleac, D.**, Prodea, I.: Subchannel flow analysis in CANDU and ACR pressure tubes with radial and axial diameter variation , Power Plants - ICAPP 2007, "The Nuclear Renaissance at Work Volume 3, 2008, Pages 1346-1355 Nice; France; 13 May 2007 through 18 May 2007; indexata SCOPUS Code 73704, ISBN: 978-160423871-6
- Vis.8.** P. Ghitescu, I. Prisecaru, **D. Dupleac**– *Romanian Network of Nuclear Education RONEN*, Volume 3, 2008, Pages 1780-1783, Nice; France; 13 May 2007 through 18 May 2007; indexata SCOPUS Code 73704 ISBN: 978-160423871-6
- Vis.9.** I. Prisecaru, **D. Dupleac**, M.Biro – *"CANDU 6 NUCLEAR POWER PLANT CONTAINMENT MODELING"* – Proceedings of international conference ESMc'2007 (European Simulation and Modelling Conference), 22-24 oct 2007 , pg 555-559, St. Julien, Malta, **Indexata ISI WOS: 000255638600088**, ISBN: 978-90-77381-36-6
- Vis.10.****Daniel Dupleac**, Ilie Prisecaru, Mirea Mladin, Gheorghe Negut - *SCDAP/RELAP5 Investigation on Coolability of Severely Degraded CANDU 6*

Core – Preliminary Results - Volume 2, 2008, Pages 1095-1101 International Conference on Advances in Nuclear Power Plants, ICAPP 2008; Anaheim, CA; United States; 8 June 2008 through 12 June 2008; indexata SCOPUS Code 76974 ISBN: 978-160560787-0

- Vis.11. Daniel Dupleac**, Ilie Prisecaru, Mirea Mladin, Gheorghe Negut, P. Ghitescu - *Investigation of Header Manifold Model Effect at CANDU6 Large Loss of Cooling Accident* - Proceedings of the 16th International Conference on Nuclear Engineering, ICONE16, May 11-15, 2008, Orlando, Florida, USA, VOL 4 Pages: 673-679, **Indexata ISI WOS: 000260672200084**, ISBN: 978-0-791-84817-3
- Vis.12.I. Prisecaru, D. Dupleac**, Nita Iulian – *Water Hammer in Nuclear Installations Case Study in Feed Water System* – Proceedings of international conference ESMc'2008 (European Simulation and Modelling Conference), 27-29 oct 2008 , pg 433-437, Le Havre, France, **Indexata ISI WOS: 000264749400065**, ISBN: 978-90-77381-44-1
- Vis.13.A. Catana, Nicolae Danila, I. Prisecaru, D. Dupleac** – *Thermal-hydraulics analysis for advanced fuel to be used in CANDU 600 nuclear reactors* – Proceedings International Conference on the Physics of Reactors «Nuclear Power: A Sustainable Resource» PHYSOR 08, 2 , pp. 1456-1463 September 14 –19, 2008, Interlaken, Switzerland, indexata SCOPUS Code 84518 ISBN: 978-161782121-9
- Vis.14. Daniel Dupleac**, Mirea Mladin, Ilie Prisecaru - *SCDAP/RELAP5 Analysis of Progression of Severe Accident in CANDU 6 Plant* - Proceedings of the 17th International Conference on Nuclear Engineering, ICONE17, VOL 3 Pages: 47-57 July 12-16, 2009, Brussels, Belgium **Indexata ISI WOS: 000282466600007**, ISBN: 978-0-7918-4353-6
- Vis.15. Mirea Mladin, Daniel Dupleac**, Ilie Prisecaru - *Verification of modified SCDAP/RELAP5 against CANDU fuel deformation experimental results* – Proceedings of the 17th International Conference on Nuclear Engineering, ICONE17, VOL 2 Pages: 379-385, July 12-16, 2009, Brussels, Belgium **Indexata ISI WOS: 000290372700046**, ISBN: 978-0-7918-4352-9
- Vis.16. Ilie Prisecaru, Iulian Nita, Daniel Dupleac**, *Modeling and simulation CANDU 6 feedwater system behaviour*, ESMc'2009 – in The 2009 European Simulation and Modelling, Conference, Pages: 361-365 October 26-28, Leicester, United Kingdom, **Indexata ISI WOS: 000280117100057**, ISBN: 978-9-07738-152-6
- Vis.17. Ilie Prisecaru, Daniel Dupleac** Nita Iulian, *CANDU liquid injection shutdown system hydraulic modeling*, ESM '2010 The 2010 European Simulation and Modelling Conference, pag. 403-408. October 25-27, 2010, A Publication of EUROSIS-ETI, Hasselt University, Hasselt, Belgium, **Indexata ISI WOS: 000305812900063**, ISBN: 978-90-77381-57-1

- Vis.18.**Gheorghe Negut, Petre Ghitescu, **Daniel Dupleac** , Ilie Prisecaru. *An overview on the national strategy to implement a deep geological repository in ROMANIA*. International Congress on Advances in Nuclear Power Plants 2010, ICAPP 2010 3 , pp. 1947-1951, 2010, indexata SCOPUS Code 81587 ISBN: 978-161738643-5
- Vis.19.****Daniel Dupleac**, Mirea Mladin, Ilie Prisecaru, Gheorghe Negut. *SCDAPSIM/RELAP5 investigation on in-vessel corium retention for CANDU 6 plant* Volume 2, 2010, Pages 1105-1111 International Congress on Advances in Nuclear Power Plants 2010, ICAPP 2010; San Diego, CA; United States; 13 June 2010 through 17 June 2010; indexata SCOPUS Code 81587 ISBN: 978-161738643-5
- Vis.20.**Nicolici S., **Dupleac D.**, Prisecaru I., *CFD Modeling of Debris Melting Phenomena during Late Phase Candu6 Severe Accident*, Volume 2, 2012, Pages 1369-1376 International Congress on Advances in Nuclear Power Plants 2012, ICAPP 2012; Chicago, IL; United States; 24 June 2012 through 28 June 2012; indexata SCOPUS Code 93719 ISBN: 978-162276210-1
- Vis.21.**Negut, Gheorghe; Prisecaru, Ilie; Catana, Alexandru, **Daniel Dupleac**: *CANDU 600 severe accident assessment*, ICONE16: Proceeding of the 16th International Conference on Nuclear Engineering - 2008, vol 3 Pages: 477-484 Published: 2008, Orlando, FL Date: May 11-15, 2008, **Indexata ISI WOS: 000260916100054**, ISBN: 978-0-79184-816-6
- Vis.22**Negut, G., Catana, A., Prisecaru, H., **Dupleac, D.:** *Thermal hydraulics of the CANDU degraded cores* , Proceedings - 12th International Topical Meeting on Nuclear Reactor Thermal Hydraulics, NURETH-12, 2007, 12p 12th International Topical Meeting on Nuclear Reactor Thermal Hydraulics, NURETH-12; Pittsburgh, PA; United States; 30 September 2007 through 4 October 2007; indexata SCOPUS Code 72093 ISBN: 0894480588;978-089448058-4
- Vis.23****Dupleac, D.**, Prisecaru, I., Ghitescu, P., Negut, G.: *Effect of CANDU 6 core modeling on large break LOCA analysis*, Proceedings - 12th International Topical Meeting on Nuclear Reactor Thermal Hydraulics, NURETH-12, 2007, 14p 12th International Topical Meeting on Nuclear Reactor Thermal Hydraulics, NURETH-12; Pittsburgh, PA; United States; 30 September 2007 through 4 October 2007; indexata SCOPUS Code 72093 ISBN: 0894480588;978-089448058-4
- Vis.24****D. Dupleac**, I. Prisecaru – *An Unequal Velocity Equal Temperature Model for Simulation of CANDU Fuel Channel Thermalhydraulic Behaviour*, Proceedings of International Symposium on Nuclear Energy, SIEN'99, Part II 15-16 oct.1999, Bucharest, pg. 414-419, BDI Google Scholar INIST-CNRS, Cote INIST : Y 33920 (1), 35400009695785.0820
- Vis.25.** I. Prisecaru, S. Nicolici, **D. Dupleac** and I. P. Niță - *CFD Modeling of the SDS2 Injection System for CANDU6 Nuclear Reactor* , 25th European Simulation

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- P.8** PARTENERIATE. NR 71-064/2007. Sistem de control a compozitiei unui amestec deuteriu–tritiu in faza lichida produs de o coloana de distilare criogenica. ICSI Rm. VALCEA - membru
- P.9** EUJEP- "European- Japanese Cooperation in Nuclear Education"- membru
- P.10** Retea de Excelență pentru pregatirea în domeniul Fizicii și Ingineriei Nucleare - REFIN. CEX 05-D10-64-300 – membru
- P.11** Cercetari avansate asupra modelarii și conducerii proceselor dinamice din CNE în scopul creșterii securitatii nucleare; (A001 Creșterea securitatii instalatiilor existente în energetica nucleara și ciclul combustibilului nuclear B3. Cod 9.3. A001) Grant ORIZONT 2000, contract de finantare nr. 574 / 2000, ANSTI; (2000-2002) – membru
- P.12** Analiza comparativa a posibilelor strategii se exploatare a grupului 1 Cernavoda în scopul minimizarii riscului operational (Utilizarea eficienta și sigura a energiei nucleare în dezvoltarea durabila a societatii. Denumirea obiectivului subsidiar: Creșterea securitatii instalatiilor existente în energetica nucleara și ciclul combustibilului nuclear Tematica C&D: A001, cod. 9.3.) Grant ORIZONT2000 Contract.1584/1997, (1999-2000) – membru
- P.13** Modele matematice modulare pentru simularea funcționării unor componente din schemele termice ale centralelor Grant MCT Contract 573, Tema A2, Cod program 9.1 (1996-1998) – membru
- P.14** Cercetări avansate asupra modelarii proceselor dinamice din CNE in scopul asigurării securității nucleare Grant Ministerul Invățământului, Contract 4001/1995, Cod program: 2; Cod Domeniu 332099 (1995-1996) – membru
- P.15** Modelarea și simularea proceselor termoenergetice cu aplicații la informatizarea și conducerea asistată de calculator a centralelor electrice clasice și nucleare. Grant MCT Contract 294 act ad. Nr. 1/1995 MCT (1995) – membru
- P.16** Realizarea suporturilor cu elasticitate și amortizare controlata (SEC) pentru rețele de conducte și echipamente Grant RELANSIN 828/2000 (2001-2004) – membru

F – Alte lucrări de cercetare – dezvoltare

Contracte elaborate ca responsabil

- Fa.1.** Benchmarking severe accident computer code for heavy water reactor applications, CRP-IAEA 1451 – 2008 -2011
- Fa.2.** An evaluation of severe accident computer codes for CANDU nuclear power plants, Canadian Nuclear Safety Commission Ottawa, Canada, 87055-08-0410/2008
- Fa.3.** Evaluarea comparativă a modelelor analitice asociate codului de calcul RELAP5 și programele de calcul utilizate în analizele de accident la CNE tip CANDU-600, Contract nr. 3/ octombrie 2005, CITON
- Fa.4.** Adaptarea si/sau realizarea de module MMS (software) pentru studierea regimurilor dinamice operaționale pentru componente și sisteme din cadrul CNE CERNAVODA; Module MMS pentru condensatorul turbinei cu abur saturat de la CNE Cernavoda, Module MMS pentru regulatoarele și buclele de reglaj, Module MMS pentru degazoarele termice. Beneficiar : R.A.A.N. Sucursala de Inginerie Tehnologică Obiective Nucleare, București-Măgurele, Contract 12.007/23.03.2002 act aditional nr.4/2005 (2005)
- Fa.5.** Adaptarea si/sau realizarea de module MMS(software) pentru studierea regimurilor dinamice operaționale pentru componente și sisteme din cadrul CNE CERNAVODA Module MMS pentru generatoarele de abur, Module MMS pentru turbina cu abur saturat de la CNE Cernavoda Beneficiar : R.A.A.N. Sucursala de Inginerie Tehnologică Obiective Nucleare, București-Măgurele, Contract 12.007/23.03.2002 act aditional nr.3/2004 (2004)
- Fa.6.** Adaptarea si/sau realizarea de module MMS(software) pentru studierea regimurilor dinamice operaționale pentru componente și sisteme din cadrul CNE CERNAVODA: Module MMS pentru: conducte; ventile de reglare; pompe centrifuge; rezervor deschis; colector; divizor; model pentru conectarea elementelor rezistive; model pentru condiții la limită intrare/ieșire presiune . Beneficiar : R.A.A.N. Sucursala de Inginerie Tehnologică Obiective Nucleare, București - Măgurele, Contract 12.007/23.03.2002 ; act adițional nr.2/2003 (2003)
- Fa.7.** Adaptarea si/sau realizarea de module MMS(software) pentru studierea regimurilor dinamice operaționale pentru componente și sisteme din cadrul CNE CERNAVODA: Modul MMS al chesonului calandriei; Module MMS pentru: Schimbător de căldura aer-apa cu fluidul rece circulând prin țevi; Răcitor local de aer (LAC); Schimbător de căldură apa-apa cu fluidul rece circulând prin tevi; Module MMS pentru: vas calandria; bazin de combustibil ars; rezervor de întârziere; protecțiile de capat; schimbător de căldura apă grea - apă ușoară. Beneficiar: R.A.A.N. Sucursala de Inginerie Tehnologică Obiective Nucleare, București - Măgurele, Contract 12.007/23.03.2002 act adițional 1/2002 (2002)

- Fa.8.** Adaptarea Ghidului de cartele pentru RELAP 5 SCDAP APENDIX A Contract nr. 05/25.04.2003 Beneficiar: Regia Autonoma pentru Activitati Nucleare (R.A.A.N.) – Sucursala de Cercetari Nucleare Pitesti
- Fa.9.** Traducerea si adaptarea documentatiei privind modelele matematice si a structurii si a structurii codului RELAP, manual RV1, contract Nr. 35 din 11.11.2002 Beneficiar: RAAN CITON
- Fa.10.** Modelul matematic al curgerii bifazice ascendente in GA intr-un sector cuprins intre trei suportii intermediari, CONTRACT RAAN-SCN 68/08/2000

Contracte la care candidatul este participant

- Fb.1.** Simulator 50 MW - Model matematic al turbinei nr.1 si nr 2. Caracteristici energetice. Contract nr. 6-90-8/1990 IPB
- Fb.2.** Analiza fenomenelor ce insotesc scurtcircuitul in conductorii retelelor de JT si analiza probabilistica a posibilitatilor de initiere a aprinderii unor materiale combustibile prin particule incandescente rezultate in urma scurtcircuitului. Contract nr. 6-90-15/1990 IPB
- Fb.3.** Fundamentarea necesitatilor introducerii garantiilor indicatorilor de fiabilitate si disponibilitate a echipamentelor energetice si aparatajului electric destinate sistemului energetic. Contract nr. 6-91-3/1991 IPB
- Fb.4.** Conducere prin dispecer a sistemului national de energie. Contract nr. 6-91-4/1991 IPB
- Fb.5.** Optimizarea dezvoltarii energetice ca structura si ritm in perioada 1995-2000-2010. Contract nr. 6-91-5/1991 IPB
- Fb.6.** Estimarea starii statice pentru principalii parametri ai schemei termice din CET cu bare colectoare de abur. Contract nr. 6-91-7/1991 IPB
- Fb.7.** Modelarea si analiza regimurilor tranzitorii ale sistemului de racire la oprire pentru CNE-Cernavoda. CONTRACT CITON 1996
- Fb.8.** Modelarea componentelor principale ale circuitului termic secundar in vederea simularii regimurilor tranzitorii cu mediul software ACSL, CONTRACT RAAN-CITON 11/29.06.2000
- Fb.9.** Cursuri de pregatire operatori CNE Prod Contract nr. 005/2000 CFCEM ;
- Fb.10.** Modelarea si simularea functionarii unui sistem de proces pilot (SRO) cu mediul de software ACSL, 557/27.06.2000-09-13
- Fb.11.** Program de pregatire a unor specialisti SITON, in domeniul modelarii matematice si simularii regimurilor tranzitorii cu pachetele de programe ACSL si MMS, Contract: 002/2000
- Fb.12.** Metode si mijloace pedagogice pentru formarea profesionala in domeniul nuclear, Contract nr. 6-97-6/1997-UPB 1584/1997

- Fb.13.** Proceduri si biblioteci software de proprietati termodinamice ale apei grele pentru calcule termohidraulice de regimuri stationare si nestationare ale sistemelor CNE PHWR CANDU Contract nr. Nr. 5 din 30.01.2001 R.A.A.N. Pitești.
- Fb.14.** Modele de simulare modulara aplicabile la CNE Cernavoda Contract nr. 15 / 10.04.2001 SCN Pitesti
- Fb.15.** Cursuri de pregatire "Fenomene și procese de baza operatori", Contract nr. 38/28.08.02 Beneficiar CP-ON Cernavoda
- Fb.16.** Cursuri pentru o grupa de cursanți, a noilor angajați ai CNE Invest - Cernavoda. contract nr. 4 din 18.09.2002
- Fb.17.** Cursuri pregătire Cernavoda Contract CNE Prod – "Fenomene și procese de bază în CNE" pentru CPPON din CNE-PROD contract nr. 40-1/2002.
- Fb.18.** Cursuri de pregătire operatori în "Fenomene și procese de baza în CNE", act adițional nr.4/2004 la contractul nr.42-1/30.09.2003, CPON, CNE Cernavoda
- Fb.19.** Studiu privind modelarea regimurilor tranzitorii din generatorul de abur si realizarea unui model matematic modular Contract nr. 26 /12.04.2002 Beneficiar: SCN Pitesti.
- Fb.20.** Fenomene si procese de baza in CNE Cernavoda - Beneficiar: Societatea Naționala „Nuclearelectrica” S.A. Nr. UPB EN 060913