



## CURRICULUM VITAE

### DATE PERSONALE

Numele	<b>BANABIC</b>
Prenumele	<b>DOREL</b>
Data nasterii	██████████
Locul nasterii	Ciceu-Giurgesti, Bistrita- Nasaud
Adresa	Univ. Tehnica din Cluj-Napoca Facultatea de Constructii de Masini Dept. de Ingineria Fabricatiei B-dul Muncii, 103-105, Cluj-Napoca, ROMANIA Tel.0264-401733, Fax.0264-415603 e.mail: ██████████@tcm.utcluj.ro

### FORMARE PROFESIONALA

1971-1975	Liceul Andrei Muresanu, Dej (Clasa Speciala de matematica)
1975-1980	Institutul Politehnic din Cluj-Napoca Facultatea de Mecanica, Sectia TCM
1980	Diploma de inginer mecanic
1989-1993	Doctorand în specialitatea Deformari Plastice
nov.1993	Sustinerea tezei de doctorat cu titlul " <b>Cercetari privind deformabilitatea tablelor metalice subtiri</b> "
oct.-dec. 1990	Stagii de specializare la Universitatea Tehnica din
oct.-nov. 1991	Varsovia, Polonia (Prof. <i>Z. Marciniak</i> )
oct.1992-ian.1993	
mai-iul.1993	Stagii de specializare la Ecole des Mines de Paris,
dec.1995	CEMEF Sophia Antipolis (Prof. <i>J.L. Chenot</i> )
nov.-dec.1994	Stagii de specializare la Universitatea din Stuttgart, Institut fur
nov.-dec.1995	Umformtechnik (Prof. <i>K. Steger</i> )

### ACTIVITATEA PROFESIONALA

1980-1984	<b>Inginer proiectant</b> la Intreprinderea "Mecanica" din Sibiu si Fabrica de masini de rectificat "Napomar" din Cluj-Napoca
1984-1996	<b>Asistent universitar, Sef de lucrari si Conferentiar</b> la Institutul Politehnic din Cluj-Napoca, Catedra TCM
Din 1996	<b>Profesor</b> la Universitatea Tehnica din Cluj-Napoca, Catedra TCM
1994-1996	<b>Director</b> al Departamentului de Cercetare Stiintifica al CCSTTI din Universitatea Tehnica din Cluj-Napoca
Din 2000	<b>Director</b> al Centrului de Cercetari in Domeniul in Tehnologia Deformarii Tablelor (CERTETA) din cadrul Universitatii Tehnice din Cluj Napoca (acreditat de CNCSIS din 2002)
Din 1999-	<b>Conducator de doctorat</b> in Stiinte Ingineresti
1996-1998	<b>Cercetator invitat</b> la Institutul de Deformari Plastice, Universitatea din Stuttgart, Germania, in cadrul unei burse Humboldt
Iul-Oct. 1999	<b>Cercetator invitat</b> la Institutul de Deformari Plastice, Universitatea din Stuttgart
Iun-Iul.1999	<b>Cercetator invitat</b> la Universitatea Paris Nord, Franta
Ian-Mar 2000	<b>Profesor invitat</b> la Universitatea Franche-Comte, Besancon, Franta

Iun-Iul 2000	<b>Profesor invitat</b> la Universitatea Paris Nord, Franta
Nov. 2001	<b>Profesor invitat</b> la Universitatea Tehnica din Chemnitz, Germania
Iulie 2002	<b>Profesor invitat</b> la RWTH Aachen, Germania
2000-2004	<b>Profesor</b> la Universitatile din Stuttgart, Germania si Universitatea Tehnica din Cluj-Napoca
Dec. 2006	<b>Profesor invitat</b> la Universitatea Ulster din Belfast, UK
Iun-Iul 2007	[redacted] la Universitatea din Metz, Franta
Sept 2010	<b>Profesor invitat</b> la Universitatea Tehnica de Stat din Moscova, Rusia
Sept. 2009	<b>Profesor invitat</b> la Scoala de vara <b>SMART 2009</b> , Univ. din Palermo, Italia
Sept. 2011	<b>Profesor invitat</b> la Scoala de vara <b>SMART 2011</b> , Univ. din Erlangen, Germania
Sept 2013	<b>Profesor invitat</b> la Scoala de vara de la Universitatea Tehnica de Stat din Moscova, Rusia
Oct 2013	[redacted] la Scoala de vara <b>SMART 2013</b> , Univ. din Palermo, Italia
Dec 2013	<b>Profesor invitat</b> la Universitatea Warwick, Anglia
Nov 2018	<b>Profesor invitat</b> la Universitatea din Palermo, Italia
Nov-Dec 2019	<b>Profesor invitat</b> la IIT Warangal (Programul GIAN)
	<b>Membru</b> in 16 comisii de doctorat din strainatate (Franta, Portugalia, Norvegia, Germania, Olanda, Iran si India)
Ian 2021-	<b>Honorary professor</b> Xian University, China
2006-2014	<b>Membru</b> al Comisiei de Stiinte Ingineresti a CNCISIS, respectiv CNCS
2006-2014	<b>Membru</b> al Comisiei Prezidentiale pentru Analiza si Elaborarea Politicilor din Domeniul Educatiei si Cercetarii
2011-2016	<b>Membru</b> al Colegiului Consultativ al Cercetarii, Dezvoltarii si Inovarii (CCCDI) al ANCS
2010-2012 si din 2020- din 2012	<b>Vicepresedinte</b> al Consiliului Național de Atestare a Titlurilor, Diplomelor și Certificatelor Universitare (CNATDCU)
	<b>Vicepresedinte</b> al Consiliului Cercetarii al Universitatii Tehnice din Cluj Napoca
din 2012	<b>Director</b> al Scolii Doctorale a Facultatii de Constructii de Masini din cadrul Universitatii Tehnice din Cluj Napoca

#### ACTIVITATEA STIINTIFICA

1990-2012	<b>Participant</b> activ la peste 100 conferinte internationale in: Germania, Anglia, Franta, Portugalia, Norvegia, Belgia, Austria, Italia, SUA, China, Grecia, Coreea de Sud, Japonia, India, Australia, Ungaria, Polonia, Cehia, Bosnia, Bulgaria, Slovenia, Serbia, Spania, Romania.
2004-2009	<b>Coordonator</b> al grupului de cercetare in proiectul «Virtual Intelligent Forging» in cadrul FP6
2004-2008	<b>Director</b> al proiectului de cercetare <i>Sheet metal formability for special metal forming processes (superplastic forming and hydroforming at very high pressure)</i> , finantat de Fundatia Humboldt
2004-2008	<b>Co-Director</b> al proiectului de cercetare <i>Improvement of performances of formability models for sheet metals using new constitutive laws</i> , finantat de Swiss National Foundation.
2009-2012	<b>Coordonator</b> grup cercetare in proiectul FP7 <b>Virtual Factory Framework</b>
2010-2013	<b>Director</b> al proiectului PCCE <b>Modelarea continua - de la micro la macro scara - a materialelor avansate in fabricatia virtuala</b>

6. **Banabic D.**, Dannenmann E. The influence of the yield locus shape on the limits strains, *J. of Materials Proc. Techn.*, Elsevier, Amsterdam, 109(2001), p.9-12 (IF=2.041)
7. **Banabic D.**, Balan T., Comsa D.S., Closed-form solution for bulging through elliptical dies, *J. of Materials Proc. Techn.*, Elsevier, Amsterdam, 115(2001), p.83-86 (IF=2.041).
8. **Banabic D.**, Balan T., Comsa D.S., Analysis of local loads on the draw die profile with regard to wear using the FEM and experimental investigations, *J. of Materials Proc. Techn.*, Elsevier, Amsterdam, 115(2001), p.153-158 (IF=2.041).
9. **Banabic D.**, T. Kuwabara, T. Balan, D. S. Comsa, Evaluation of an anisotropic yield criterion, *Proceedings of the Romanian Academy*, 2(2001), No.3, p.17-21 (IF=1.115).
10. **D. Banabic**, O. Cazacu, F. Barlat, D.S. Comsa, S. Wagner, K. Siegert, Recent anisotropic yield criteria for sheet metals, *Proceedings of the Romanian Academy*, 3(2002), No. 3, p.91-99 (IF=1.115).
11. Butuc M.C., **Banabic D.**, Barata da Rocha A., Gracio J.J., Ferreira Duarte J., Jurco P., Comsa D.S, The performance of YLD96 and BBC2000 yield functions in forming limit prediction, *J. of Materials Proc. Techn.*, Elsevier, 125-126(2002), p.281-286 (IF=2.041).
12. **Banabic**, O. Cazacu, F. Barlat, D.S. Comsa, S. Wagner, K. Siegert, Description of the anisotropic behaviour of AA3103-0 aluminum alloy using two recent yield criteria, *J. de Physique*, Paris,105(2003), 297-304.
13. T. Kuwabara, D.S.Comsa, D. Banabic, E. Iizuka, Anisotropic behaviour modelling for steel sheets using different yield criteria, *Key Engineering Materials*, 233-2 (2003), p.841-846
14. **Banabic D.**, Kuwabara T., Balan T., Comsa D.S., Julean D., Non -Quadratic yield criterion for orthotropic sheet metals under plane-stress conditions, *Int. J. Mechanical Sciences*, 45(2003), Nr. 5, p. 797-811 (IF=2.061).
15. M. Vulcan, K. Siegert, **D. Banabic**, The Influence of Pulsating Strain Rates on the Superplastic Deformation Behaviour of Al-Alloy AA5083 Investigated by Means of Cone Test, *Material Science Forum*, 442-443(2003), p.139-145.
16. **Banabic**, Anisotropy and formability of AA5182-0 aluminium alloy sheets, *Annales of CIRP*, 53(2004), p. 219-222 (IF=2.541).
17. D.S. Comsa, G. Cosovici, P. Jurco, **D. Banabic**, Simulation of the hydroforming process using a new orthotropic yield criterion, *J. of Materials Proc. Techn.*, 157-158(2004), p.67-74 (IF=2.041).
18. **Banabic D.**, D.S.Comsa, P. Jurco, G. Cosovici, L. Paraianu, D. Julean, FLD theoretical model using a new anisotropic yield criterion, *J. of Materials Proc. Techn.*, 157-158(2004), p. 23-27 (IF=2.041).
19. **Banabic D.**, Kuwabara T., Balan T., Comsa D.S., An anisotropic yield criterion for sheet metals, *J. of Materials Proc. Techn.*, 157-158(2004), p.462-465 (IF=2.041).
20. **D. Banabic**, H. Aretz, D.S. Comsa, L. Paraianu, An improved analytical description of orthotropy in metallic sheets, *International Journal of Plasticity*, 21(2005), Nr.3, p.493-512 (IF=5.971).
21. **Banabic D.**, Aretz, H., Paraianu L., Jurco P., Application of various FLD modelling approaches, *Journal of Modelling and Simulation in Materials Science and Engineering*, 13(2005), 759-769 (IF=1.492).
22. **Banabic D.**, Vulcan M., Bulge testing under constant and variable strain rates of superplastic aluminium alloys, *Annales of CIRP*, 54(2005), 205-209 (IF=2.541).
23. Comsa D.S., **Banabic D.**, Numerical simulation of sheet metal forming processes using a new yield criterion, *Key Engineering Materials*, 344 (2007), 833-840 .
24. **D. Banabic**, M. Vos, Modelling of the Forming Limit Band –A new Method to Increase the Robustness in the Simulation of Sheet Metal Forming Processes, *Annals of CIRP*, 56(2007), p. 249-252 (IF=2.541).
25. Soare S., **Banabic D.**, Application of a polynomial yield function to the predictions of



- limit strains, *Steel Research International* 79 (2008), p. 39-46 (IF=1.023).
26. M. O'Donnell, **D. Banabic**, A. G. Leacock, D. Brown, R. J. McMurray, The Effect of Pre-Strain and Inter-Stage Annealing on the Formability of a 2024 Aluminium Alloy, *International Journal of Material Forming*, 1(2008), p. 253-256 (doi: 10.1007/s12289-008-0356-x) (IF=1.418).
  27. M. O'Donnell, A. G. Leacock, **D. Banabic**, D. Brown, R. J. McMurray, The Effect of Pre-Strain and Solution Heat Treatment on the Formability of a 2024 Aluminium Alloy, *International Journal of Material Forming*, 1(2008), p. 257-260 (doi: 10.1007/s12289-008-0353-0) (IF=1.418).
  28. Soare S., **Banabic D.**, A note on the MK computational model for predicting the forming limit strains, *International Journal of Material Forming*, 1(2008), p. 281-284. (doi: 10.1007/s12289-008-0347-y) (IF=1.418).
  29. S. Soare, **D. Banabic**, About the mechanical data required to describe the anisotropy of thin sheets to correctly predict the earing of deep-drawn cups, *International Journal of Material Forming*, 1(2008), p. 285-288. (doi: 10.1007/s12289-008-0348-x) (IF=1.418).
  30. **Banabic D.**, Soare S., Assessment of the Modified Maximum Force Criterion for Aluminum Metallic Sheets, *Key Engineering Materials*, Vols. 410-411 (2009), p. 511-520.
  31. **Banabic D.**, Hußnätter, W., Modeling the Material Behavior of Magnesium Alloy AZ31 Using Different Yield Criteria, *International Journal of Advanced Manufacturing Technology*, 36(2009), No.9-10, p. 969-976. (IF=1.779).
  32. Soare S., **Banabic D.**, A discussion upon the sensitivity of the MK model to input data, *International Journal of Material Forming*, 2(2009), p. 503-506, DOI: 10.1007/s12289-009-0521-x (IF=1.418).
  33. L. Paraiianu, G. Dragos, I. Bichis, D. S. Comsa, **D. Banabic**, An improved version of the modified maximum force criterion (MMFC) used for predicting the localized necking in sheet metals, *Proceedings of the Romanian Academy, Series A*, 10(2009), nr.3, p. 237-243 (IF=1.115).
  34. **D. Banabic**, G. Dragos, I. Bichis, Influence of Variability of Mechanical Data on Forming Limits Curves, *Steel Research International* 81 (2010), 1356-1360 (IF=1.023).
  35. Soare S., **Banabic D.**, A four parameter in-plane isotropic yield function, *International Journal of Material Forming*, 2(2009), p.507-510, DOI:10.1007/s12289-009-0562-1 (IF=1.418).
  36. L. Paraiianu, G. Dragos, I. Bichis, D. S. Comsa, **D. Banabic**, A new formulation of the modified maximum force criterion (MMFC), *International Journal of Material Forming*, 3(2010), 243-246 (IF=1.418).
  37. **D. Banabic**, F. Barlat, O. Cazacu, T. Kuwabara, Advances in Anisotropy and Formability, *International Journal of Material Forming*, 3(2010), 165-189 (IF=1.418).
  38. L. Părăianu, S. Comsa, I. Bichiş, **D. Banabic**, Influence of the Mechanical Parameters on the Forming Limit Curve, *Steel Research International*, (2011), p.744-749 (IF=1.023).
  39. A. Capustiac, **D. Banabic**, D. Schramm, U. Ossendoth, Motion cueing: from design until implementation, *Proceedings of the Romanian Academy, Series A*, 12(2011), Nr.3, p.249-256 (IF=1.115).
  40. L. Lăzărescu, D. S. Comşa, **D. Banabic**, Analytical and Experimental Evaluation of the Stress-Strain Curves of Sheet Metals by Hydraulic Bulge Test, *Key Engineering Materials*, 473(2011), 352-359.
  41. **Banabic D.**, Sester M., Influence of material models on the accuracy of the sheet forming simulation, *Materials and Manufacturing Processes*, 27(2012), 304-308. (IF=1.486).

42. Paraianu L., Comsa D.S., Nicodim I., Ciobanu I., **Banabic D.**, Effect of the constitutive law on the accuracy of prediction of the forming limit curves, *Key Engineering Materials*, 504-506(2012), 77-82.
43. L. Lăzărescu, I. Nicodim, D. S. Comşa, D. **Banabic**, A Procedure for the Evaluation of Flow Stress of Sheet Metal by Hydraulic Bulge Test Using Elliptical Dies, *Key Engineering Materials*, 504-506(2012), 107-112.
44. R. Jafari Nedoushan, M. Farzin, M. Mashayekhi, **D. Banabic**, A Micro-Structure Based Constitutive Model for Superplastic Forming, *Metallurgical and Materials Transactions, A*, 43A(2012), Nov., 4266-4280 (IF=1.73).
45. L. Lăzărescu, D.S. Comşa, I. Nicodim, I. Ciobanu, **D. Banabic**, Investigation of Bulge Radius Variation and its Effect on the Flow Stress in the Hydraulic Bulge Test, *Steel Research International*, (2012), 395-399 (IF=1.023)
46. A. Shamsi-Sarband, S. Abolfazl Zahedi, M. Bakhshi-Jouybari, S. Jamal Hossinipour, **D. Banabic**, Optimizitation of the pressure path in sheet metal hydroforming, *Proceedings of the Romanian Academy, Series A*, 13(2012), Nr.4, 351-359 (IF=1.115).
47. Lazarescu L., Comsa D.S., Nicodim I., Ciobanu I., **Banabic D.**, Characterization of plastic behaviour of sheet metals by using the hydraulic bulge test, *Trans. Nonferrous Met. Soc. China*, 22(2012), 275-279 (IF=1.001).
48. Biro V., **Banabic D.**, Call for standardization in material behaviour assessment systems output formats, *Advance Science Letters*, 19(2013), 898-902.
49. L. Părăianu, S.D. Comsa, **D. Banabic**, Influence of the Constitutive Equations on the FLC Prediction, *Advance Science Letters*, 19(2013), 1011-1015
50. **D. Banabic**, Effect of the constitutive laws on the accuracy of sheet metal simulation, *Key Engineering Materials*, 535-536(2013), 279-283
51. L. Lăzărescu, I. Ciobanu, I. Nicodim, D.S. Comşa, **D. Banabic**, Effect of the mechanical parameters used as input data in the yield criteria on the accuracy of the finite element simulation of sheet metal forming processes, *Key Engineering Materials*, 554-557 (2013), 204-209.
52. **D. Banabic**, L. Lazarescu, L. Paraianu, I. Ciobanu, I. Nicodim, D.S. Comsa Development of a new procedure for the experimental determination of the Forming Limit Curves, *Annales of CIRP*, 62(2013), 255-258 (██████████).
53. M. Vrh, M. Halilović, B. Starman, B. Štok, D.S. Comsa, **D. Banabic**, Capability of the BBC2008 yield criterion in predicting the earing profile in cup deep drawing simulations, *European Journal of Mechanics A/Solids*, 45(2014), 59-74 (██████████).
54. F. Popa, I. Chicinaş, D. Frunză, I. Nicodim, **D. Banabic**, Influence of high deformation on the microstructure of low-carbon steel, *International Journal of Minerals, Metallurgy, and Materials*, 21(2014), Issue 3, 273-278 (IF= 1.261).
55. L. Părăianu, S.D. Comsa, **D. Banabic**, Influence of the identification procedure of the yield criterion on the thickness prediction of the square cup, *Key Engineering Materials*, 611-612 (2014), 70-75
56. S. Bruschi, T. Altan, **D. Banabic**, P.F. Bariani, A. Brosius, J. Cao, A. Ghiotti, M. Khraisheh, M. Merklein, E. Tekkaya, Testing and Modeling of Material Behavior and Formability in Sheet Metal Forming Processes, *Annales of CIRP*, 63(2014), 727-749 (██████████).
57. A. Kami, B. Mollaei Dariani, A. Sadough Vanini, D.S. Comsa, **D. Banabic**, Application of a GTN Damage Model to Predict the Fracture of Metallic Sheets Subjected to Deep-Drawing, *Proceedings of the Romanian Academy, Series A*, 15(2014), 300-309 (IF=1.115).
58. Nedoushan R.J., Farzin M., **Banabic D.**, Simulation of Hot Forming Processes Using Cost Effective Micro-Structural Constitutive Models, *Int. J. Mechanical Sciences*, 85(2014) 196-204 (██████████).
59. A. Kami, B. Mollaei Dariani, A. Sadough Vanini, D.S. Comsa, **D. Banabic**, Numerical determination of the forming limit curves of anisotropic sheet metals using

- GTN damage model, *J. Materials Proc. Technol.*, 216 (2015) 472–483 ( ).
60. L. Lăzărescu, I. Nicodim, D.S. Comşa, **D. Banabic**, Effect of the blank-holding load on the drawing force in the deep-drawing process of cylindrical and square cups, *Applied Mechanics and Materials*, 760(2015), 379-384.
  61. L. Lăzărescu, I. Nicodim, **D. Banabic**, Evaluation of drawing force and thickness distribution in the deep-drawing process with variable blank-holding, *Key Engineering Materials*, 639(2015), 33-40.
  62. L. Lăzărescu, D.S. Comşa, **D. Banabic**, Predictive performances of the Marciniak-Kuczynski model and Modified Maximum Force Criterion, *Key Engineering Materials*, 651-653(2015), 96-101.
  63. D. Ionita, M. Cristea, **D. Banabic**, Viscoelastic behavior of PMMA in relation to deformation mode, *Journal of Thermal Analysis and Calorimetry*, 120(2015), Issue 3, 1775-1783 (IF=2.206).
  64. F. Popa, I. Chicinaş, **D. Banabic**, Voids and microstructure evolution of aluminium sheet during high deformations, *Advanced Engineering Forum*, 13(2015), 91-96.
  65. R. Nemat-Chari, K. Dehghani, A. Kami, **D. Banabic**, Application of response surface methodology for study of effective strain in equal channel angular pressing of AA6061 alloy, *Proceedings of the Romanian Academy, Series A*, 16(2015), 217-225 (IF=1.735).
  66. D. Ionita, C. Gaina, M. Cristea, **D. Banabic**, Tailoring the hard domain cohesiveness in polyurethanes by interplay between the functionality and the content of chain extender, *Royal Society of Chemistry Advances*, 3(2015), 76852-76861 (IF=3.84).
  67. J. Gawad, **D. Banabic**, A. Van Bael, D. S. Comsa, M. Gologanu, P. Eyckens, P. Van Houtte, D. Roose, An evolving plane stress yield criterion based on crystal plasticity virtual experiments, *Int. J. Plasticity*, 75(2015), 141-169 ( ).
  68. **D. Banabic**, A.-M. Habraken, J. W. Yoon, Safe, flexible and efficient sheet metal forming: formability - fracture, incremental sheet forming and rolling, *International Journal of Material Forming*, 9(2016), p.259-260, DOI 10.1007/s12289-015-1243-x (IF=1.241).
  69. Y. Barzegar, R. Jafari Nedoushan, A. Razazzade, M. Farzin, **D. Banabic**, Finite element modeling of damage evolution in cold pilgering process, *Proceedings of the Romanian Academy, Series A*, 17(2016), 267-276 (IF=1.735).
  70. Alirezaiee, M., Jafari Nedoushan, R., **Banabic, D.**, Improvement of product thickness distribution in gas pressure forming of a hemispherical part, *Proceedings of the Romanian Academy, Series A*, 17(2016), 245-252 (IF=1.735).
  71. **D. Banabic**, Advances in plastic anisotropy and forming limits in sheet metal forming, *J. Manuf. Sci. Eng. Transaction of ASME*, (2016), 138(9):090801-090801-9 (doi: 10.1115/1.4033879) ( ).
  72. A. Kami, B. Mollaci 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).
  73. Chun-Qing Hu, Hong-Wu Song, Hai Liu, **D. Banabic**, Shi-Hong Zhang, Ming Cheng, Shuai-Feng Chen, A statistical model for contact orientation and anisotropy in granular assemblies, *Proceedings of the Romanian Academy, Series A*, 19(2018), Nr.2, 175-183 (IF=1.735).
  74. Y. Ma, Y. Xu, S. Zhang, **D. Banabic**, A.El-Aty, D. Chen, M. Cheng, H. Song, A.I. Pokrovsky, G. Chen, Investigation on formability enhancement of 5A06 aluminium sheet by impact hydroforming, *Annales of CIRP*, 67(2018), 281-284 ( ).
  75. Hints R., Vanca M., Terkaj W., Marra E.D., Temperini S., **Banabic D.**, A Virtual Factory Tool to enhance the integrated Design of Production Lines, *Proceedings of the Romanian Academy, Series A*, 19(2018), Nr. 3, (IF=1.735).
  76. Alharthi H., Hazra S., **Banabic D.**, Dashwood R., Determination of the yield loci of four sheet materials (AA6111-T4, AC600, DX54D+Z, and H220BD+Z) by using



- uniaxial tensile and hydraulic bulge tests, *International Journal of Advanced Manufacturing Technology*, (2018) (IF=2,209).
77. D. Lumelskyj, J. Rojek, L. Lazarescu, **D. Banabic**, Determination of forming limit curve by finite element method, *Procedia Manufacturing*, 27 (2019), 78–82.
  78. **Banabic D.**, Barlat F., Cazacu O., Kuwabara T., Advances in Anisotropy of Plastic Behaviour and Formability of Sheet Metals, *International Journal of Materials Forming*, (13(2020), 749-787 (IF=1,75)
  79. **Banabic D.**, Kami A., Comsa D.S., Eyckens P., Developments of the Marciniak-Kuczynski Model for Sheet Metal Formability: a Review, *Journal of Materials Processing Technology (Special Issue in Honor of Prof. Marciniak)*, (2021) (IF=4,178).
  80. Da-Yong Chen, Yong Xu, Shi-Hong Zhang, Yan Ma, Ali Abd El-Aty, **Dorel Banabic**, Artur I. Pokrovsky, Alina A. Bakinovskaya, A novel method to evaluate high strain rate formability of sheet metals under impact hydroforming, *Journal of Materials Processing Technology*, (2021) (IF=4,178)
  81. Lucasz Madej, **Dorel Banabic**, Professor Zdzisław Marciniak—A life dedicated to metal forming, *Journal of Materials Processing Technology*, (2021) (IF=4,178)
  82. Weihao Jiang, Wenlong Xie, Hongwu Song, Lazarescu Lucian, Shihong Zhang, **Dorel Banabic**, A modified thin-wall tube push-bending process with polyurethane mandrel, *International Journal of Advanced Manufacturing Technology*, 106(2020), 2509–2521. (IF=2,496).
  83. Weijin Chen, Hongwu Song, Lucian Lazarescu, Yong Xu, Shi-Hong Zhang, **Dorel Banabic**, Formability analysis of hot-rolled dual-phase steel during the multistage stamping process of wheel disc, *International Journal of Advanced Manufacturing Technology*, 106(2020) (IF=2,496).
  84. Johan Pilthammar, **Dorel Banabic**, Mats Sigvant, BBC05 with Non-Integer Exponent and Ambiguities in Nakajima Yield Surface Calibration, *International Journal of Materials Forming*, 13(2020) (IF=1,75)
  85. Ozan SINGAR, **Dorel BANABIC**, Numerical simulation of tailored hybrid blanks, *Proc. of the Romanian Academy. Series A*, 21(2020), (in press) (IF=1,294)
  86. Hong-wu Song, Wenlong Xie, Shi-Hong Zhang, Weihao Jiang, Lucian Lazarescu, **Dorel Banabic**, Granular media filler assisted push bending method of thin-walled tubes, *International Journal of Mechanical Sciences*, 198(2021) 106365 (IF=4,631)

#### C.1 PUBLICATIONS IN REVISTE NECOTATE ISI

1. **Banabic D.**, Asupra elementelor fluidice cu turbulenta (pneumistori), *Buletinul Stiintific Seria Tehnica-matematica*, vol.III, Institutul de învățământ superior Sibiu, Sibiu, 1980 pag.304-309.
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**Membru** in Comitetele stiintifice a peste 100 de conferinte internationale: NUMISHEET'99, Besancon-Franta ; NUMISHEET 2002, Seul-Corea de Sud ; NUMISHEET 2005, Detroit-USA; NUMISHEET 2008, Interlaken-Elvetia; NUMISHEET-2011, Seoul, Korea; NUMISHEET-2014, Melbourne, Australia; NUMISHEET-2016, Bristol, UK; NUMISHEET-2018 Tokyo, Japan; NUMISHEET-2021, Toronto, Canada; NUMIFORM 2007, Porto, Portugalia; NUMIFORM 2010, Gyongju-Corea de Sud ; NUMIFORM 2013, Shenyang, China; NUMIFORM 2016, Troys, France; NUMIFORM 2019, New Hampshire, US ; ESAFORM 2001, Liege-Belgia; ESAFORM 2002, Cracovia-Polonia; ESAFORM 2003, Salerno-Italia; ESAFORM 2004, Torndheim-Norvegia; ESAFORM 2005 (Presedintele comitetului de organizare), Cluj Napoca, Romania; ESAFORM 2006, Glasgow, UK; ESAFORM 2007, Zaragoza, Spania; ESAFORM 2008, Lyon, Franta; ESAFORM 2009, Enshede, Netherlands; ESAFORM 2010, Brescia, Italy; ESAFORM 2011, Belfast, UK; ESAFORM 2012, Erlangen, Germania; ESAFORM 2013, Aveiro, Portugalia; ESAFORM 2014, Helsinki, Finland; ESAFORM 2015, Graz, Austria; ESAFORM 2016, Nantes, France; ESAFORM 2017, Dublin, Ireland; ESAFORM 2018 Palermo, Italia; ESAFORM 2019 Vitoria, Spania; ESAFORM 2020, Coburg, Germania; ESAFORM 2021, Liege, Belgia; ESAFORM 2022, Braga, Portugal; EUROMECH 2002, Liege-Belgia; SIA 2007, Caen-Franta ; ICTP 2007, Gyongju-Corea de Sud ; ICTP 2011, Aachen, Germany ; ICTP 2014, Nagoya, Japan; ICTP 2017, Cambridge, UK ; ICTP 2021, Columbus, US; ICTMP 2010, Nisa, Franta ; ICIT'99, ICIT 2001, Maribor, Slovenia ; AMME'97, AMME'98, AMME'99, AMME 2000, AMME2001, AMME2002, AMME2003, AMME2005 Gliwice-Poland ; DEMI '98, DEMI 2000 Banja Luka-Bosnia ; SMF 2007, Bombay, India; ICCMM 2011, Guwahati, India; KOMPLASTECH 2009, KOMPLASTECH 2011, KOMPLASTECH 2013, KOMPLASTECH 2015, KOMPLASTECH 2017, KOMPLASTECH 2019 Krakow, Poland; DIE-MOLDS 2009, Kusadasi, Turkey; DIE-MOLDS 2011, Ankara, Turkey; DIE-MOLDS 2013, Antalya, Turkey; DIE-MOLDS 2015, Turkey; SHEMET 2007, Palermo, Italia; SHEMET2009, Birmingham, UK; SHEMET-2011, Leuven, Belgia; SHEMET-2013, Belfast, UK; SHEMET 2015, Erlangen, Germany; SHEMET 2017, Palermo, Italy; SHEMET 2019, Leuven, Belgia; SHEMET 2021, Erlangen, Germany; AEPA 2008, Daejon, Korea; AEPA 2010, Wuhan, China; AEPA 2012, Singapore; AEPA 2018 Jeju, Korea; ECCOMAS 2012, Aveiro, Portugalia; ICNFT 2012, Harbin, China; ICNFT 2018, Bremen, Germania; IDDRG 2012, Bombay, India; IDDRG 2013, Zurich, Elvetia; IDDRG 2014, Paris, Franta; IDDRG 2015, Shanghai, China; IDDRG 2016, Linz, Austria; IDDRG 2017, Munchen, Germania; IDDRG 2018 Waterloo, Canada; IDDRG 2019, Eindhoven, Olanda; IDDRG 2020, Busan, Korea; IDDRG 2021, Stuttgart, Germany; CIRP-CMS-2016, Stuttgart, Germania; Metal Forming 2016, Krakow, Poland; Metal Forming 2018, Krakow, Poland; Metal Forming 2020, Krakow, Poland; Metal Forming 2010, Toyohashi, Japonia; ICAFT 2018 Chemnitz, Germania; Industrial Technology and Management (ICITM 2019), Cambridge, UK; Int. Conf. Computational Methods in Manufacturing, 2019, Guwahati, India; AEROSPATIAL 2018, Bucuresti, Romania; AEROSPATIAL 2020, Bucuresti, Romania; ModTech 2020, Eforie Nord, Romania; NewTech 2020, Bucegi, Romania; SISOM 2018, SISOM 2019, SISOM 2020, SISOM 2021, Bucuresti, Romania; MTeM2001, MTeM2003, MTeM2005, MTeM2007 MTeM2009, MTeM2011, MTeM2013, MTeM-2015, MTeM-2017, MTeM-2019, MTeM-2021 Cluj-Napoca; MSE 2003, MSE 2007, MSE-2009, MSE-2011, MSE-2013, MSE-2015, MSE-2017, MSE-2019, MSE-2021 Sibiu, Romania; ASTR 2009, Cluj Napoca, Romania (Co-presedinte al comitetului de organizare) ; SISOM 2019, SISOM 2020 , Bucuresti, Romania (Co-presedinte al comitetului de organizare) ; TPR2000 Cluj-Napoca, Romania (Presedintele comitetului de organizare).

#### **MEMBRU IN ORGANIZATII STIINTIFICE**

2012-2016	<b>Presedinte</b> al Asociatiei Europene de Deformarea Materialelor (ESAFORM) ( <a href="http://www.esaform.org">www.esaform.org</a> )
Din 1998	<b>Membru</b> al Asociatiei Europene de Deformarea Materialelor (ESAFORM)

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35. **D. Banabic**, Fabricația virtuală. Realizări și tendințe, Intilnirea anuala Clubului Humboldt Transilvania, Cluj Napoca, 15 Dec. 2006.
36. L. Paraianu, D.S. Comsa, **D. Banabic**, Accuracy estimation of anisotropic yield criteria, Proc. of the Conference "Excellence in research", Brasov, 24-26 Oct. 2007.
37. **D. Banabic**, Modelarea comportării materialelor în fabricația virtuală, Conferința "Zilele Academice ale ASTR-10 ani de la înființare", Bucuresti, 28-30 nov. 2007.
38. **D. Banabic**, Direcții moderne de cercetare în ingineria producției: fabricația virtuală, Academia Română, Bucuresti, 6 Feb. 2008.
39. **D. Banabic**, Cercetarea aplicată în domeniul ingineriei mecanice în România, Workshop-ul "Pentru excelență în știința românească", Centrul UNESCO, Bucuresti, 26 Martie 2008
40. **D. Banabic**, D.S. Comsa, L. Paraianu, Contribution of the CERTETA research centre in sheet metal forming simulation, Excellence research- A way to innovation-Conference, (Eds: Vasiliu N., Lanyi S.), Brasov, 2008, p.163.1-163.4.
41. **D. Banabic**, Tendințe pe plan mondial privind cercetarea în domeniul tehnologiilor de fabricație, Conferința "Zilele Academice ale ASTR", Cluj Napoca, 12 Nov. 2008, p.55-60.
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43. **Banabic D.**, The doctoral studies in Romania: a critical analysis, Proc. of the ASTR Conference, Iassy, 2009, p.223-229.
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45. **Banabic D.**, Ilintz Reka, Vanca M., Tendencies in virtual manufacturing, Proc of the ASTR Conference, Craiova, 28-29 Sept. 2010, p.401-406.
46. L. Părăianu, S. Comșa, **D. Banabic**, Forming Limit Curves Predicted by a New Formulation of Hora's Criterion (MMFC), Seminar "Research Challenges for



- Sustainable Development”, Timișoara, 19-23 martie 2012
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  49. Ionita D., Cristea M., Gaina C., **Banabic D.**, Comportamentul viscoelastic al unor retele poliuretanic cu reticulari fizice si chimice, Zilele Academice Iesene, A XXV-a Sesiune de comunicari stiintifice a Institutului de Chimie Macromoleculara Petru Poni, Iasi, 24-26 Sept. 2015.
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  52. V. Axinciuc, **D. Banabic**, Evoluția corpului tehnic din România din 1864 până in prezent, Conferinta Zilele Academiei de Științe Tehnice din România, 6-7 Octombrie 2017, Constanta

#### F BREVETE DE INVENTII

1. **Banabic D.**, Deacu L., Pop I., *Electromagnet proportional*, Brevet de inventie, Nr.86601/26.03.1984.

#### G ALTE PUBLICATII

1. Dannenmann, E., **Banabic D.**, Hauesserman E., *Forming limit curves. Experimental and theoretical determination*, Twelwe-monthly progress report of the BRITE-EURAM Project “Forming of new metallic materials”, Stuttgart, 1997.
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3. **Banabic D.**, *Formability assesment. Determination of the yiled loci and forming limit diagrams*, Report D6, Twelwe-monthly progress report of the BRITE-EURAM Project “VIRFORM”, Stuttgart, 2001.
4. **Banabic, D.** *Test of currents FEM models*, Report D7, Twelwe-monthly progress report of the BRITE-EURAM Project “VIRFORM”, Stuttgart, 2001.
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9. **Banabic D.**, *Complex parts, strain analysis, report on results including simulation results with state of art models and advanced models*, Report D30, 48-monthly progress report of the BRITE-EURAM Project “VIRFORM”, Stuttgart, 2004.
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12. Hora P., **Banabic D.**, *Improvement of performances of formability models for sheet metals using new constitutive laws*, Final report of the SCOPES Project, Swiss National Foundation, Zurich, 2008.
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## **MEMORIU DE ACTIVITATE**

Candidatul a fost implicat într-o foarte intensă activitate de cercetare națională și internațională, așa cum rezultă din lista proiectelor de cercetare pe care le-a coordonat în calitate de director de proiect sau în care a fost implicat ca cercetător. Candidatul a coordonat peste 25 proiecte de cercetare naționale și a fost implicat în 12 proiecte de cercetare internațională (în calitate de cercetător invitat la universități din Franța și Germania). Această activitate a condus la obținerea unor rezultate semnificative cu un puternic impact atât în comunitatea științifică cât și industrială pe plan mondial. Principalele contribuții științifice aduse în domeniul în care lucrează și recunoscute pe plan mondial sunt prezentate sintetic mai jos. Această recunoaștere rezultă atât din citările lucrărilor autorului (a se vedea lista de citări) cât și din referințele de la cercetători de prestigiu de la universități sau din industrie.

### **LISTA PROIECTELOR DE CERCETARE COORDONATE DE CANDIDAT**

(ULTIMII 15 ANI)

#### **PROIECTE INTERNE**

1. 2006-2008 Creșterea performanțelor simulării proceselor de deformare plastică în fabricația virtuală prin utilizarea de modele constitutive noi, Programul Cercetare de Excelență CEEX (Proiect de cercetare în sprijinul programelor post-doctorale)
2. 2006-2008 Platforma integrată pentru simularea proceselor de deformare în fabricația virtuală-VIRFAB, Programul Cercetare de Excelență CEEX (Proiecte de cercetare complexe, M1)
3. 2007-2008 Modelarea stohastică a curbilor limita de deformare, un nou instrument în scopul creșterii robusteții simulării proceselor de deformare plastică a tablelor metalice, Contract CNCISIS-A.
4. 2007-2010 Modelarea curbilor limita de deformare, un nou instrument al fabricației virtuale în procesele de deformare a tablelor metalice, Programul PN II-IDEI.
5. 2008-2010 Modele avansate pentru descrierea anizotropiei și deformabilității tablelor metalice, PN II Resurse Umane, Proiect de Cercetare pentru Simularea Revenirii în Tara (RP), Programul PN II-Resurse Umane

6. 2010-2013 Modelarea continua - de la micro la macro scara - a materialelor avansate in fabricatia virtuala, Proiect complex de cercetare exploratorie, Programul PN II-IDEL.

#### **PROIECTE EXTERNE**

1. 2004- 2008 Virtual Intelligent Forging, Excellence Network, Financed by European Community, Contract no. NMP2-CT-2004-507331.
2. 2005- 2008 Sheet metal formability for special metal forming processes (superplastic forming and hydroforming at very high pressure). Joint research project between Institute for Metal Forming Technology, Stuttgart University and CERTETA, Financed by Humboldt Foundation, Germany, Project No.: V-Fokoop-RUM/1036802, 2004
3. 2005- 2008 Improvement of performances of formability models for sheet metals using new constitutive laws. Joint research project between Institute for Virtual Fabrication, ETH Zurich and CERTETA, Financed by Swiss National Science Foundation, Switzerland, Project No.: IB7320-110974/1, 2005
4. 2005-2008 3D extension of the BBC2005 yield criterion, Financed by AutoForm Engineering GmbH, Switzerland.
5. 2009-2013 VFF Holistic, extensible, scalable and standard Virtual Factory Framework, Collaborative Project FP7 Program- Large-scale integrating project, NMP-2008-3.4-1.
6. 2012-2015 K2 Mobility – Sustainable Vehicle Technologies, Project with Virtual Vehicle GmbH Graz, Austria

#### **PRINCIPALELE CONTRIBUTII IN DOMENIUL DE SPECIALITATE**

1. Punerea in evidenta atat experimental cit si teoretic a sollicitarii pulsatorii asupra curbelor limita de deformare
2. Utilizarea pentru prima data a criteriului de plasticitate a lui Hill din 1993 in modelarea unor procese de deformare a tablelor
3. Verificarea experimentală a criteriului Hill din 1993
4. Introducerea (in colaborare cu Prof. Pöhlant si Prof. Lange de la Universitatea din Stuttgart, Germania) a conceptului de coeficient de anizotropie biaxiala.

5. Utilizarea coeficientului de anizotropie biaxiala in determinarea suprafetelor de curgere
6. Elaborarea unor modele analitice pentru umflarea hidrostatica
7. Introducerea unui criteriu de plasticitate (BBC2000) pentru medii ortotrope
8. Dezvoltarea criteriului BBC2000 in forma BBC2005 si BBC 2008
9. Elaborarea programului comercial de calcul al curbelor limita de deformare FORM-CERT
10. Elaborarea primului model teoretic al Benzilor Limita de Deformare
11. Analiza influentei presiunii hidrostatice asupra Curbelor Limita de Deformare
12. Implementarea criteriului BBC2005 in programul comercial de Element Finit AUTOFORM, utilizat de peste 95% din producatorii de autovehicole de pe plan mondial (in colaborare cu firma AUTOFORM, Zurich, Elvetia)
13. Colaborarea cu Institutul de Fabricatie Virtuala de la ETH Zurich pentru dezvoltarea modelului Hora de predictie a CLD
14. Colaborarea cu Catholic University of Leuven, Belgia, pentru cuplarea unui model de material bazat pe textura (Alamel) cu cel fenomenologic (BBC 2008), dezvoltat de autor.
15. Colaborarea cu firma RENAULT pentru implementarea criteriului BBC2005 in programele de simulare pentru procesele de deformarea ale tablelor utilizate de firma
16. Colaborarea cu firma VIRTUAL VEHICLE din Graz pentru dezvoltarea de modele avansate de predictie a Curbelor Limita de Deformare
17. Colaborarea la realizarea unui curs interactiv pe internet «ALUMATTER» (redactarea capitolului de Plasticitate si Anizotropie)
18. Contributia cu două capitole la prima enciclopedie de Ingineria Productiei editată de Springer in anul 2014: Encyclopaedia of Production Engineering.
19. Traducerea in limba chineză de către editura Science Press Beijing a Academiei de Stiinte din China a cărții « Sheet Metal Forming Processes » (Springer, 2010), aceasta fiind prima carte de inginerie a unui autor roman tradusă in limba chineză.



Din 1999	<b>Membru</b> al Comitetului stiintific al Asociatiei Europene de Deformarea Materialelor (ESAFORM)
Din 2000	<b>Membru</b> al <i>Consiliului Director</i> al Asociatiei Europene de Deformarea Materialelor (ESAFORM) ( <a href="http://www.esaform.org">www.esaform.org</a> )
2000-2008	<b>Secretar</b> al Asociatiei Europene de Deformarea Materialelor (ESAFORM) (reales in 2002, 2004 si 2006)
2008-2012	<b>Vicepresedinte</b> al Asociatiei Europene de Deformarea Materialelor (ESAFORM)
Din 2013	<b>Membru titular</b> al <i>Academiei de Stiinte Tehnice din Romania</i> , sectia de Stiinta si Ingineria Materialelor (corespondent din 2005) ( <a href="http://www.astr.ro">www.astr.ro</a> )
Din 2014	<b>Membru titular</b> al <i>Academiei Internationale de Ingineria Productiei (CIRP)</i> (corespondent din 2005) ( <a href="http://www.cirp.net">www.cirp.net</a> )
Din 2015	<b>Membru titular</b> al <i>Academiei Romane</i> (corespondent din anul 2009) ( <a href="http://www.academiaromana.ro">www.academiaromana.ro</a> )
Din 2015	<b>Presedintele Sectiei de Stiinte Tehnice a Academiei Romane</b> ( <a href="http://www.acad.ro/sectii/sectia08_tehnica/teh_presedinte.htm">www.acad.ro/sectii/sectia08_tehnica/teh_presedinte.htm</a> )
Din 2015	<b>Membru</b> al Prezidiului Academiei Romane
Din 2018	<b>Presedintele Diviziei de Istoria Tehnicii a CRIFST</b>
Din 2018	<b>Vicepresedinte</b> al <b>Comitetului Roman de Istoria si Filosofia Stiintei si Tehnicii (CRIFST)</b> al Academiei Romane

Evaluator pentru proiecte de cercetare pentru urmatoarele agentii:

*The Research Council of Norway*

*German Research Foundation (DFG)*

*National Research Council Canada*

*Italian National Agency for the Evaluation of Universities and Research Institutes*

*Research Foundation Flanders (FWO), Belgium*

*Netherlands Organisation for Scientific Research (NWO)*

*New Eurasia Foundation, Russia*

*Science & Engineering Research Council, Singapore*

*Chile's Research Council*

*The Fundação para a Ciência e a Tecnologia, Portugal*

**Membru** in Supervisor Board al centrului de excelenta in **Stiinta Materialelor si Biomateriale** al Universitatii Tehnice din Gliwice, Polonia

**Editor in Chief** al Revistei **Proceedings of the Romanian Academy**, Editura Academiei Romane

**Editor in Chief** al Revistei **Romanian Journal of Technical Sciences–Applied Mechanics**, Editura Academiei Romane

**Editor in Chief** al **Buletinului Asociatiei Europene de Deformarea Materialelor (ESAFORM)**

**Associate Editor** al Revistei **International Journal of Material Forming**, Springer, Germania

**Associate Editor** al Revistei **International Journal of Forming Processes**, Hermes, Paris, Franta

**Membru** in Editorial Board al Revistei **Memoirs of the Scientific Sections of the Romanian Academy**, Editura Academiei Romane.

**Membru** in Editorial Board al Revistei **NOEMA**, Editura Academiei Romane.

**Membru** in Editorial Board al revistei **Forging & Stamping Technology**, Beijing, China

**Membru** in Editorial Board al revistei **Iranian Journal of Materials Forming**, Shiraz, Iran

**Membru** in Editorial Board al Revistei **Computed Method in Materials Science**, Polonia

**Membru** in Editorial Board al Revistei **Journal of Production Processes and Systems**, Ungaria

**Membru** in Editorial Board al Revistei **Forging and Stamping Production (Kuznecino Stampovocinoe Proizvodvo)**, Moscova

**Membru** in Editorial Board al Revistei **Manufacturing Review**, EDP Science, Franta

## PREMII si DISTINCTII

**Premiul Traian Vuia al Academiei Romane** pe anul 2002 pentru lucrarea "*Formability of Metallic Materials*"

**Premiul Leonardo da Vinci** pe anul 2006 al Comisiei Europene pentru programul de e-learning ALUMATTER

**Medalia de bronz a Presedintiei Germaniei** pe anul 2006 pentru programul de e-learning ALUMATTER

**Lee Hsun Award** pe anul 2015 acordata de **Institute of Metal Research Shenyang of the Chinese Science Academy**

**Ordinul national „Steaua României”** în grad de Cavaler, Decembrie 2016.

## PUBLICATII

Carti publicate in tara **17**  
*A coordonat doua volume de Istoria Tehnicii din cadrul seriei Civilizatia Romaneasca a Editurii Academiei Romane..*

Carti publicate in strainatate **6** (la editurile Springer (4), Science Press Beijing (1) si Hermes (1))

Contributii cu capitole in carti **12** (4 in tara si 8 in strainatate in editurile Elsevier, Wiley, Springer, CRC Press)

*A contribuit cu capitole la doua enciclopedii:*

- 1. Encyclopedia of Production Engineering, Springer, Heidelberg-Berlin, 2014, 2019*
- 2. Encyclopedia of Aluminium and its Alloys, CRC Press, New York, 2019.*

Articole publicate sau prezentate:	<b>372</b>
-Conferinte nationale	<b>47</b>
-Conferinte internationale	<b>205</b>
din care cotate ISI	<b>50</b>
-în reviste:	<b>120</b>
din care cotate ISI	<b>98</b>
Brevete de inventii	<b>1</b>

**Peste 120** de articole publicate in colaborare cu cercetatori din Germania, Franta, Suedia, Elvetia, Anglia, Portugalia, Polonia, Belgia, Iran, Arabia Saudita, China, Suedia, Norvegia, Olanda, Coreea de sud, Bielorusia, Ucraina, Turcia, Japonia, Slovenia, USA.

<b>Citari pe ISI Web of Science</b>	<b>1811</b>
<b>Indicele Hirsch (ISI Web of Science)</b>	<b>19</b>
<b>Citari pe Scholar Google</b>	<b>~5000</b>
<b>Indice Hirsch (Scholar Google)</b>	<b>34</b>

Informatii suplimentare se gasesc pe pagina de web :  
<http://users.utcluj.ro/~banabic/>

Cluj Napoca  
06.07.2021

**LISTA DE LUCRARI**

06 iunie 2021

**A. CARTI**

**A.1 CARTI PUBLICATE IN ROMANIA**

1. Tapalaga I., Achimas Gh., Iancu H., **Banabic D.**, Coldea A., *Tehnologia presarii la rece (In drumator de lucrari de laborator)*, Litografia I.P.C.N., Cluj-Napoca, 1986, 244 pag.
2. Deacu I., **Banabic D.**, Radulescu M., Ratiu C., *Tehnica hidraulicii proportionale*, Editura Dacia, Cluj-Napoca, 1989, 312 pag.
3. **Banabic D.**, Dörr I.R., *Deformabilitatea tablelor metalice subtiri. Metoda curbelor limita de deformare*, Editura OIDICM, Bucuresti, 1992, 246 pag., ISBN 973-95641-1-9.
4. **Banabic D.**, Dörr I.R., *Modelarea matematica a proceselor de deformare plastica a tablelor metalice*, Editura Transilvania Press, Cluj-Napoca, 1995, 226 pag., ISBN - 973-97041-9-0.
5. **Banabic D.**, *Introducere in teoria plasticitatii*, Universitatea Tehnica din Cluj-Napoca, 1994, 56 pag.
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7. **Banabic D.**, Lucrarile Conferintei "Tehnologii si masini pentru prelucrarea prin deformare plastica a metalelor", Editor: Banabic D., Editura Printek 2000, Cluj Napoca, 2000, 286 pag. (ISBN 973-97486-5).
8. **Banabic D.**, *Cold Metal Forming*, Proc. of the "TPR 2000" Conference, Printek 2000, Cluj-Napoca, 2000, 226 pag., ISBN 973-97486-3.
9. **Banabic D.** (Editor), *Proceedings of the 8<sup>th</sup> ESAFORM Conference on Material Forming*, The Publishing House of the Romanian Academy, Bucharest, 2005, Vol 1 and Vol. 2, XXII-539, XXII+584 pag. (Vol.1, ISBN: 973-27-1174-4, Vol. 2, ISBN: 973-27-1175-2).
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12. Lăzărescu L., Părăianu L., **Banabic D.**, *Bazele proceselor de deformare plastică, Aplicații practice*, UTPRESS Cluj Napoca, 2011, 206 pag (ISBN 978-973-662-659-3).
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14. Lăzărescu L., Comșa D.S., **Banabic D.**, *Analiza cu elemente finite a proceselor de prelucrare prin deformare plastică*, Casa Cărții de Știință, Cluj Napoca, 2018, (ISBN 978-606-17-1314-1)
15. Frangopol P., **Banabic D.**, David D., *Educația și cercetarea românească. Starea prezentă și perspectiva*, Casa Cărții de Știință, Cluj Napoca, 2018, 288 pag. (ISBN 978-606-17-1284-7)
16. **Banabic D.**, Bădescu V., Leonăchescu, N., Marin V., (Coordonatori) *Ingineri români*.



- Dicționar enciclopedic, Vol. III**, Editura Mira, București, 2019, 364 pag. (ISBN 978-606-543-724-1).
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  18. **Banabic D.**, (Coordonator), **Istoria tehnicii și industriei românești (Mecanica, tehnicile de prelucrare și construcțiile)**, Editura Academiei Române, București, 2020, ISBN 978-973-27-3054-6.
  19. **Banabic D.**, (Coordonator), **Istoria tehnicii și industriei românești (Electrotehnica, energetica, transporturile și învățământul tehnic)**, Editura Academiei Române, București, 2020, ISBN 978-973-27-3055-3.

## A.2 CARTI PUBLICATE IN STRAINATATE

1. **Banabic D.**, Bünge H.J., Pöhlandt K., Tekkaya A.E., **Formability of Metallic Materials**, Editor: **Banabic D.**, Springer Verlag, Heidelberg, 2000 (358 pag), ISBN 3-540-67906-5.
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3. **Banabic D.**, (Guest Editor), **Modelling and Experiments in Material Forming**, Hermes-Lavoisier, Paris, 2007, ISBN 978-2-7462-1775-1 (134 pag).
4. **Banabic D.** **Sheet Metal Forming Processes**, Springer, Heidelberg, 2010 (307 pag) (ISBN 978-3-540-88112-4).
5. **Banabic D.**, **Sheet Metal Forming Processes**, Science Press, Beijing, 2015 (250 pag) (în chineza)
6. **Banabic D.**, **Multiscale modelling in sheet metal forming**, Springer, Heidelberg, 2016, (425 pag) (ISBN 978-3-319-44070-5)

## B. CONTRIBUTII LA CARTI

### B.1 PUBLICATE IN ROMANIA

1. Deacu L., **Banabic D.**, Radulescu M., Ratiu C., **Sisteme hidraulice proportionale**. In: TCMM, Vol.2, Editura Tehnica, Bucuresti, 1987, p.152-187.
2. **Banabic D.**, Cercetarea aplicata in domeniul tehnologiilor de fabricație din Romania, În: **Pentru excelență în știința românească** (Eds.: Frangopol P., Zamfir N.V., Braun T.), Casa Cărții de Știință, Cluj Napoca, 2008, p. 113-132 (ISBN 978-973-133-405-9).
3. **Banabic D.**, Axenciuc V., **Evoluția numărului de absolvenți de învățământ tehnic din românia în perioada 1871-2016**, În: **Educația și cercetarea românească. Starea prezentă și perspectiva**, Eds. Frangopol P., Banabic D., David, D., Casa Cărții de Știință, Cluj Napoca, 2018, p.89-107.
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### B.2 PUBLICATE IN STRAINATATE

1. **Banabic D.**, Sheet metal predicted by using the new (1993) Hill's yield criterion, In: **Advanced Methods in Materials Processing Defects** (Studies in Applied Mechanics Serie, Vol. 45), (Editors: Predeleanu M., Gilormini P.), Elsevier Science, Amsterdam, 1997, p.257-265, ISBN 0-444-82271-2.
2. Barlat F., Cazacu O., Zyczkowski M., **Banabic D.**, Yoon J.-W., Yield surface plasticity and anisotropy, In: **Continuum Scale Simulation of Engineering Materials. Fundamentals-Microstructures-Process Applications**, (Editors: D. Raabe, L.-Q.



- Chen, F. Barlat, F. Roters), Wiley-VCH, Weinheim, 2004, p.145-185, ISBN 3-527-30760-5.
3. **Banabic D.**, Tekkaya E.A., Forming Simulation, In: *Virtual Fabrication of Aluminum Alloys: Microstructural Modeling in Industrial Aluminum Production*, (Editor: J. Hirsch), Wiley-VCH, Weinheim 2006, p. 275-303 (ISBN: 3-527-31363-X).
  4. **Banabic D.**, Barlat F., Cazacu O., Kuwabara T., Anisotropy and formability, In: *Advances in Material Forming-ESAFORM 10 Years on*, (Editors: Chinesta F., Cueto, E.), Springer, Heidelberg, 2007, p.143-173 (ISBN: 978-2-287-72142-7).
  5. **Banabic D.**, Material models in sheet metal forming simulation, In: *Automotive sheet metal forming*, (Editors: Verma R.K., Bhattacharjee D.), McGraw Hill, 2008, p.42-48 (ISBN: 978-0-07-025218-9).
  6. Felice L., **Banabic D.**, Formability and damage, In: (Eds.: L. Laperrière, G. Reinhart, Encyclopedia of Production Engineering), Springer, Heidelberg-Berlin, 2014, p.539-547 (ISBN 978-3-642-20616-0)
  7. Brosius A., **Banabic D.**, Anisotropy, In: (Eds.: L. Laperrière, G. Reinhart, Encyclopedia of Production Engineering), Springer, Heidelberg-Berlin, 2014, p. 40-47 (ISBN 978-3-642-20616-0)
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  9. **Banabic D.**, Comsa D.S., BBC2005 yield criterion used in the numerical simulation of sheet metal forming processes, In: (Eds.: Tekkaya E.A., Homberg W., Brosius A., *60 Excellent Inventions in Metal Forming*), Springer, Heidelberg Berlin, 2015, p. 11-17 (ISBN 978-3-662-46311-6)
  10. **Banabic D.**, Lazarescu L., Comsa D.S., An innovative procedure for the experimental determination of the Forming Limit Curves, In: (Eds.: Tekkaya E.A., Homberg W., Brosius A., *60 Excellent Inventions in Metal Forming*), Springer, Heidelberg Berlin, 2015, p. 49-55 (ISBN 978-3-662-46311-6)
  11. **Banabic D.**, Bălan T., Comşa D.S., Anisotropic Yield Criteria for Aluminum Alloy Sheets, In: (Ed. Totten G., Encyclopedia of Aluminium and its Alloys), CRC Press, New York, 2019, p.93-106 (ISBN 9781466510807)
  12. Brosius A., **Banabic D.**, Anisotropy, In: (Eds.: S. Chatti, L. Laperrière, G. Reinhart, T. Tolio, CIRP Encyclopedia of Production Engineering), Springer, Heidelberg-Berlin, 2019, p. 66-72 (ISBN 978-3-662-53119-8)
  13. **Banabic D.**, Felice L., Formability, In: (Eds.: S. Chatti, L. Laperrière, G. Reinhart, T. Tolio, CIRP Encyclopedia of Production Engineering), Springer, Heidelberg-Berlin, 2019, p.720-726 (SBN 978-3-662-53119-8)

## C. ARTICOLE PUBLICATE IN REVISTE

### C.1 PUBLICATE IN REVISTE ISI

1. **Banabic D.**, Valasutean S., The effect of vibratory straining upon Forming Limit Diagrams, In: *Journal of Materials Processing Technology*, Elsevier, Amsterdam, Vol.34(1992), p.431-437 (IF=2.041)
2. **Banabic D.**, Dorr I.R., Prediction of the Forming Limit Diagrams in pulsatory straining, *Journal of Materials Processing Technology*, Elsevier, Amsterdam, 45(1994), No.1-4, p.551-556 (IF=2.041).
3. **Banabic D.**, Analysis of punch-stretching in vibratory regime, *Journal of Materials Processing Technology*, Elsevier, Amsterdam, 60(1996), No.1-4, June, p.201-204 (IF=2.041).
4. **Banabic D.**, Formability of aluminium sheets in pulsatory straining, *Materials Science Forum*, 217-222(1996), p. 1335-1342.
5. **Banabic D.**, Limit strains in the sheet metals by using the 1993 Hill's yield criterion, *J. of Materials Processing Technologic*s, 92-93(1999), p.429-432 (IF=2.041).