Anexa CV Benga Gabriel

Activitati de cercetare:

➢ Proiecte internationale de cercetare

1. Proiect de cercetare MMRI-1064-03-F intre McMaster Manufacturing Research Institute, Hamilton, Ontario, Canada and Siemens Westinghouse Ltd., Canada, intitulat: "Transition Machining Process Development" project manager of the research team as a postdoctoral fellow at McMaster University during 10.06.2003/10.06.2004, buget MMRI 55000 CAD

2. Proiect de cercetare MMRI-1068-07-F between McMaster Manufacturing Research Institute, Hamilton, Ontario, Canada and Exactatherm Ltd., Ontario, Canada, intitulat: " Assesement of the quality of coatings", member of the research team as a postdoctoral fellow at McMaster University during 10.06.2003/10.06.2004, budget MMRI 15000 CAD.

➢ Programul Horizont 2020

Call: H2020-MG-2014, SEP-210181740 Promoting Innovation in the Inland Waterways Transport Sector, Acronym PROMINENT, coordinator *STICHTING STC-GROUP, Netherlands,* partner Universitatea din Craiova, Facultatea de Mecanica, Departamentul IMST, manager proiect din partea Universitatea din Craiova prof.dr.ing. Benga Gabriel, 2015-2018, buget UCV 58260 eur.

➢ Grant International DG Move

No. MOVE/B3/SER/2015-224/SI 2.721484 - Study on support measures for the implementation of the TEN-T core network related to sea ports, inland ports and inland waterway transport. Lot 1: Assessment of potential of maritime and inland ports and inland waterways and of related policy measures, coordinator Ernst&Young, France, partener Universitatea din Craiova, Facultatea de Mecanica, Departamentul IMST, manager de proiect din partea Universitatea din Craiova, prof.dr.ing. Benga Gabriel, 2016-2017, budget UCV 56750 eur.

➢ Programul TEN-T

2012-EU-18067-S- LNG Masterplan for Rhine-Main-Danube, acronym LNG, coordinator Pro Danube Management GmbH, Austria, partner Universitatea din Craiova, Facultatea de Mecanica, manager de proiect din partea Universitatea din Craiova, prof.dr.ing. Benga Gabriel, 2012-2015, budget Univ Craiova 31400 eur. http://www.lngmasterplan.eu/

➢ Programul INTERREG, Danube Transnational Programme, Seed for Money Facility

DTP-SMF1-95 Trasnational Cooperation in Higher Education in the Danube Region, acronim EDUMARKT, coordonator Universitatea din Craiova, Facultatea de Mecanica, manager proiect prof.dr.ing. Benga Gabriel, 2018-2019, buget Universitatea din Craiova 30000 euro.

➢ Programul NATO Science for PEACE and Security

SPS 5580 – Creation of New Generation Titanium Diboride Composite Armour Material, acronim ARMPROT, coordonator Universitatea din Craiova, Facultatea de Mecanica, manager proiect prof.dr.ing. Gabriel BENGA, 2019-2021, buget Universitatea din Craiova 102.000 euro.

➢ Programul South East Europe

1. SEE AF/A/223/3.2/X: Cooperation - Network for logistics and nautical education focusing on Inland Waterway Transport in the Danube corridor supported by innovative solutions, acronym NELI, coordinator CERONAV Constanta, partener Universitatea din Craiova, Facultatea Ingineria si Managementul Sistemelor Tehnologice, membru in echipa de cercetare, 2009-2012 http://www.neliproject.eu/neli/
2. SEE AF/A/ **5108416** Harmonized Inland Navigation Transport through education and information technology, acronym HINT, coordinator coordinator CERONAV Constanta, partener

Universitatea din Craiova. Facultatea de Mecanica, Departamentul Ingineria si Managementul Sistemelor Tehnologice, membru in echipa de cercetare, 2012-2014 http://www.hintproject.net/

- **Programul ERASMUS PLUS**

1. Proiect nr. 2019-1-RO01-KA203-063486 - „Digital Manufacturing Master Degree to set specialists for the dawn of the Industry 4.0", acronim DIGIMAN, coordinator Universitatea din Craiova, 2019-2021, budget 43.702 euro, director de proiect prof.dr.ing. Gabriel Benga
2. Proiect nr. 601165- EPP-1-2018-1-NL-EPPKA2-SSA - Competence Based Education and Training for Inland Navigation", acronim COMPETING, coordinator STC Group Netherlands, 2019-2021, budget 22.900 euro, manager de proiect din partea Universitatea din Craiova, s.l.dr.ing. Adrian Olei, membru in echipa de implementare
3. Proiect nr. 2018-1-RO01-KA202-049371 – Logistics technologist (LOT) – new harmonized qualification to unify, regulate and optimize in an innovative concept the disparate logistics activities from a fabrication system, acronym LOGIN, coordinator Universitatea din Craiova, 2018-2020, director proiect conf.dr.ing. Danut Savu, membru in echipa de implementare
4. Proiect nr. 2016-1-NL01-KA202-022981 - Competency Based Inland Waterway Transport Education & Training, acronym IWTCOMP, coordinator STC. Netherlands, manager de proiect din partea Universitatea din Craiova, prof.dr.ing. Benga Gabriel, 2016-2019, budget UCV 14139 euro.

- **Programul FP7**

Framework Project 7 (FP7)- FP 7 218362-2008, ***Platform for the implementation of NAIADES***, acronym PLATINA, beneficiar Comisia Europeana, coordinator proiect: Via Donau – Osterreichische Wasserstra□en-Gesellschaft mbH, Austria, partener Universitatea din Craiova, Facultatea de Ingineria si Managementul Sistemelor Tehnologice, Drobeta Turnu Severin, membru in echipa de cercetare, 2008-2012.

- **Programul FP6**

1 **Framework Project 6 (FP6)**, FP6-013908/2005-2007, beneficiar Comisia Europeana; coordinator proiect: Chalex Ltd., U.K.; partener: partener Universitatea din Craiova, Facultatea de Ingineria si Managementul Sistemelor Tehnologice, Drobeta Turnu Severin, membru in echipa de cercetare, 2005-2007. (www.impart-nanotox.org)

- **Granturi naționale de cercetare – Cercetare de excelenta CEEX**

1. Grant de cercetare CERCETARE DE EXCELENTA (CEEX) nr. C85/2006, beneficiar: Ministerul Educatiei si Cercetarii ; coordonator: Universitatea din Craiova, Facultatea de Ingineria si Managementul Sistemelor Tehnologice din Drobeta Turnu Severin; director proiect: prof.dr.ing. Mangra Mihail; titlu: ***Dezvoltarea cunoasterii asupra elaborarii si microprocesarii prin metalurgia pulberilor a materialelor nanostructurate pentru componente MEMS***; acronim: **PRONANOMAT** (membru in colectivul de cercetare); durata finantarii: 2006-2008 (www.imst.ro)
2. Grant de cercetare CERCETARE DE EXCELENTA (CEEX) 2006, beneficiar: Ministerul Educatiei si Cercetarii; coordonator: Institutul National de Cercetare - Dezvoltare in Sudura si Incercari de Materiale - ISIM Timisoara; partener: Universitatea din Craiova, Facultatea de Ingineria si Managementul Sistemelor Tehnologice din Drobeta Turnu Severin; coordonator parteneriat: prof.dr.ing. Mangra Mihail; titlu: ***Microstraturi plurifunctionalizate pentru acoperirea aliajelor de titan prin tehnologii avansate)***; acronim: **MICROFUNCTIA** (membru in colectivul de cercetare); durata finantarii: 2006-2008 (www.isim.ro)
3. Grant de cercetare CERCETARE DE EXCELENTA (CEEX) 2006, beneficiar: Ministerul Educatiei si Cercetarii; coordonator: Institutul National de Cercetare - Dezvoltare in Sudura si Incercari de Materiale - ISIM Timisoara; partener: Universitatea din Craiova, Facultatea de Ingineria si Managementul Sistemelor Tehnologice din Drobeta Turnu Severin; coordonator parteneriat: prof.dr.ing. Mangra Mihail; titlu: ***Centrul virtual pentru tehnologii integrate cu aplicatii ale energiei electroultraacustice in ingineria materialelor avansate***; acronim: **ULTRATECH**;(membru in colectivul de cercetare) durata finantarii: 2006-2008 (www.isim.ro)

➢ Contracte Nationale de Cercetare (selecție)

1. PN-III-P1-1.2-PCCDI-2017-0875 Proiecte complexe realizate în consorţii CDI (PCCDI), SISTEME DE PROTECTIE COLECTIVA PENTRU DOMENIUL MILITAR REALIZATE DIN ALIAJE CU ENTROPIE RIDICATA DIN SISTEMUL AlCrFeMnNi MICROALIATE CU Ti, Zr, Hf, Y - HEAPROT, coordinator Institutul de Cercetare Dezvoltare pentru Metale Neferoase si Rare-IMNR, partener Univ din Craiova, Fac. De Mecanica, (membru in colectivul de cercetare), resposabil parteneriat Univ. din Craiova, conf.dr.ing. Savu Danut.
2. PN-III-P2-2.1-CI-2017 – contract 87CI／2017 - Optimizarea elementelor constructive ale sistemelor de protecție și comutație electrică în vederea îmbunătățirii duratei de viață a produsului, director proiect conf.dr.ing. Savu Sorin
3. Contract PN II, 90C/5.12.2007, Program Resurse Umane, Proiect tip MC-Mobilitate Cercetatori, titlu: „Wear patterns of polycrystalline cubic boron nitride cutting tools when machining hardened bearing steel", 2007, director de proiect.
4. Contract nr. 3C/486c/1994-1996, tema B, "Procedee tehnologice şi sisteme de prelucare a oţelurilor înalt aliate a aliajelor de titan şi a oţelurilor cu duritatea peste 62 HRC" (membru in colectivul de cercetare) Beneficiar: Ministerul Cercetării şi Tehnologiei, Direcţia Generală Resurse, Unităţi şi Institute de Cercetare Dezvoltare
5. Contract nr. 798B/68c/1996, tema A4, "Procedee tehnologice de obţinere a elementelor aşchietoare din materiale ceramice oxidice pe bază de bariu şi stronţiu" (membru in colectivul de cercetare) Beneficiar: Ministerul Cercetării şi Tehnologiei Generală Resurse, Unităţi şi Institute de Cercetare Dezvoltare
6. Contract C.N.C.S.I.S. cod 3253/2001,cod 16, "Studii asupra mecanismului SPS la elaborarea unor magneţi ceramici anizotropi" (membru in colectivul de cercetare)

Publicaţii (selecție):

1. Stefan, I., **Benga, G.C**. and Olei, A. 2020. Elaboration and Characterization of the Nanometric Titanium Diboride Powders by Mechanical Milling Method. Annals of "Dunarea de Jos" University of Galati. Fascicle XII, Welding Equipment and Technology. 31, (Dec. 2020), 55-58. DOI:https://doi.org/https://doi.org/10.35219/awet.2020.08. **(SCOPUS)**
2. **Benga G**., Iakobidze N., Savu D., Savu S., Stefan I. (2020) Creation of New Generation Titanium Diboride Composite Armour Material. In: Palestini C. (eds) Advanced Technologies for Security Applications. NATO Science for Peace and Security Series B: Physics and Biophysics. Springer, Dordrecht. https://doi.org/10.1007/978-94-024-2021-0_12 **(SCOPUS)**
3. **Benga, G.C**., Savu, D., Savu, S.V., Olei, A., Iacobici, R.I., 2019. Assessment of Trends in Inland Waterway Transport within European Union. Advanced Engineering Forum 34, 247–254. https://doi.org/10.4028/www.scientific.net/aef.34.247 **(Proquest)**
4. Savu, I.D., Olei, B.A., Savu, S.V., **Benga, G.C**., Iacobici, R.I., 2019. Warehousing in Romania. Advanced Engineering Forum 34, 235–240. https://doi.org/10.4028/www.scientific.net/aef.34.235 **(PROQUEST)**
5. Savu, S.V., Savu, I.D., **Benga, G.C**., Olei, B.A., Iacobici, R.I., 2019. Emission Control Technologies and Certification Test Methods for Inland Vessel Engines. Advanced Engineering Forum 34, 221–226. https://doi.org/10.4028/www.scientific.net/aef.34.221 **(PROQUEST)**
6. Ştefan, I., **Benga, G**., Savu, I.D., Savu, S.V., Olei, A., 2019. Preparation and Identification of Barium Monoferrite by Solid State Reaction Method. Advanced Engineering Forum 34, 46–52. https://doi.org/10.4028/www.scientific.net/aef.34.46 **(PROQUEST)**
7. S. V. SAVU, I. D. SAVU, **G. C. BENGA,** Integration of welding simulation as digital training tool into Industry 4.0 fabrication processes, Sudarea si Incercarea Materialelor, BID-ISIM, 3/2018, p. 11-13, ISSN 1453-0392, (**CSA Database**).
8. I. D. SAVU, S. V. SAVU, **G. C. BENGA,** Evolution of the thermal field at microwave heating of metals and ceramics materials, BID-ISIM, 3/2018 pp. 6-9, ISSN 1453-0392, (**CSA Database**)
9. Savu, S. V., Benga, G. C., Ciupitu, I., & Olei, B. A. (2018). Competencies for Inland Navigation Crew of LNG-Fueled Ships. In *Advanced Engineering Forum* (Vol. 27, pp. 248-253). Trans Tech Publications, 2018. (**EBSCO Database)**

10. S. V. SAVU, I. D. SAVU, **G. C. BENGA**, I. CIUPITU**,** Study of functional characteristics of the hybrid US-laser bonds, Optoelectronics and Advanced Materials-Rapid Communications, Vol. 11, No. 9-10, September-October, 2017, p.580-585.(**ISI Journal, impact factor 0.47**)

11. S. V. SAVU, I. D. SAVU, **G. C. BENGA**, I. CIUPITU**,** Improving functionality of Ti6Al4V by laser technology surfacing**,** Optoelectronics and Advanced Materials-Rapid Communications**,** Vol 10 ISS. 9-10 2016, pp. 752-760, 2016 (**ISI Journal, impact factor 0.47**)

12. Savu, S. V.; Savu, I. D.; **Benga, G. C**., Heat Affected Zone in Microwave Polymer Welding, Advanced Materials Research 2016,Vol.1138,p165-171. **(EBSCO Database**)

13. C. I. Pascu, O. Gingu, N. Lupu, **G. Benga**, I. Vida-Simiti, "Research about the Quality of Bulk Titanium Materials Obtained by Powder Metallurgy Technology from Titanium Hydride Powder Used for Automotive Components", Applied Mechanics and Materials, Vol. 822, pp. 418-428, 2016 (**EBSCO Database**)

14. S.V. Savu, I. Ciupitu, N.A. Sîrbu, I.D. Savu, **G.C. Benga** Microwave-resistive hybrid thermal source for soldering alloys and metal-ceramics composites /Sursă termică hibridă microunde-rezistiv pentru lipirea aliajelor metalice și a compozitelor metal ceramică ,BID-ISIM, 3/2016. Pp 6-8 (**CSA-Technology Research Database)**

15. **G. Benga**, D. Savu, A. Olei *Influence of cutting parameters on the surface roughness when machining hardened steel with ceramic and PCBN cutting tools*, Advanced Engineering Forum, vol 13, pp. 19-22, Jun. 2015, DOI 10.4028/www.scientific.net/AEF.13.19 **(EBSCO Database)**

16. Gingu, O., Harabor, A., Rotaru P., Pascu, I., Ciupitu, I., **Benga, G.C**., Sima, G., Olei, A, *Influence of two steps sintering parameters on tribological behaviour of hybrid hydroxyapatite-based biocomposites*, J.Adv.Therm.Sci.Res, ISSN 2409-5826/14, vol.1, no.2, 2015. **(Crossref database)**

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18. **G. Benga**, *Harmonisation and modernization of professional qualifications in inland navigation*, Proceedings of the International Conference " Serbia in the Danube Region in the 21st Century, Belgrade, 24 sept 2013

19. A. Olei, **G. Benga**, I. Stefan, *The influence of the tribological testing conditions on the wear rate for some titanium plates processed by spark plasma sintering route*, 4th International Conference " Advanced Composite Materials Engineering" COMAT 2012, 18-20 octombrie, Brasov, 2012

20. **Benga, G**., Gingu, O. Sima, G., Ciupitu, I., Rotaru, P., Moreno, JC, *Thermophysical properties and wear assessment of Nanostructured biocomposites*, 1st Central and Eastern European Conference on Thermal Analysis and calorimetry CEEC-TAC1 ", Craiova, 7-10 September, 2011, p.133, ISBN 978-606-11-1893-9;

21. Sima, G., Gingu, O**., Benga, G**., Rotaru, P., Ruiz-Navas, E., Moreno, J.C. ., *Thermal investigation and wear behaviour of lightweight self-lubricant composites for automotive parts,* 1st Central and Eastern European Conference on Thermal Analysis and Calorimetry CEEC-TAC1", Craiova, Sept. 2011; p.225, ISBN 978-606-11-1893-9;

22. Ion Ciupitu, **Gabriel Benga**, Adela Ionescu, Danut Savu *The improving of the process of the iron, the cast iron and the copper powder mixing,* Materials Science Forum, Volume 672, pp. 76-79, January 2011, Trans Tech Publication, Switzerland, DOI 10.4028/www.scientific.net/MSF.672.76 **(ISI Proceedings)**

23. **Gabriel Benga**, Oana Gingu, Ion Ciupitu, *Assessment of wear and tribological behavior of spark plasma sintered Ti,* Annals &Proceedings of 21st DAAAM World Symposiums, ISBN 978-3-901509-73-5, ISSN 1726-9679 Published by DAAAM International Vienna, 2010, pg.377-378. **(EBSCO Database)**

24. **Gabriel Benga**, Oana Gingu, Ion Ciupitu, Lucian Gruionu, Ileana Pascu, Jose Calderon Moreno - Chapter Title: Processing and laser micromachining of HAP based biocomposites, Book "Engineering the future", ISBN 978-953-307-210-4, Ed. Sciyo, 2010 **(Crossref Database)**

25. O.Gingu, **G. Benga**, A. Olei, N. Lupu, P. Rotaru, S. Tanasescu, M. Mangra, I. Ciupitu, I. Pascu, G. Sima, *Wear behavior of ceramic bicomposites based on hydroxiapatite nanopowders,* Proceedings of the IMechE, Part E: J. of Process Mechanical Engineering, Vol 224, ISSN 0954-4089 **(ISI Journal, Impact factor, 0,463),** 2010..

26. **Gabriel Benga**, Ion Ciupitu, Alexandru Stanimir, *Correlation between cutting forces and tool wear when thread tapping AISI P20 hardened steel*, Annals of DAAAM for 2009 &Proceedings of the 20th International DAAAM Symposium, Volume 20, No.1, ISSN 1726-9679, ISBN 978-3-901509-70-4, Published by DAAAM International Vienna, pg.1753-1754, 2009 **(ISI Proceedings)**

27. **Benga, G.,** Ciupitu, I. I*nfluence of coating and tool geometry on the tool life, **chapter 91**,* pp. 931-938, DAAAM International Scientific Book 2009 Vol. 8, ISSN 1726-9687, ISBN 978-3-901509-71-1, Editor: B. Katalinic, hard cover, Publisher DAAAM International Vienna, Vienna, (**EBSCO database**)

28. **Benga Gabriel**, Ciupitu Ion – *The influence of coating and tool geometry on the tool life in a thread cutting process*, Annals of DAAAM for 2008 &Proceedings of the 19th International DAAAM Symposium , ISSN 1726-9679, ISBN 978-3-901509-68-1, Published by DAAAM International Vienna, pg.91-92, 2008 **(ISI Proceedings)**

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31. S.C. Veldhuis, G.K. Dosbaeva, **G. Benga,** - *Application of ultra-thin fluorine-content lubricating films to reduce tool/workpiece adhesive interaction during thread-cutting operations*, International Journal of Machine Tools and Manufacture, volume 47, issues 3-4, ISSN: 0890-6955, Elsevier Science, pg. 521-528, 2007.(**ISI Journal, Impact factor 1.956, zona rosie**)

32. **Gabriel Benga**, Stephen Veldhuis – *Influence of cutting parameters on the cutting forces when slotting Inconel 617*, Proceedings of the International Conference on Manufacturing Systems, ICMaS, 2006, ISSN 1842-3183, pg. 287-291, Editura Academiei Romane, Bucuresti, 2006.

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34. **Gabriel C. Benga**, Alexandre M. Abrao- *Turning of hardened 100Cr6 bearing steel with ceramic and PCBN cutting tools***,** Journal of Materials Processing Technology, 143-144, ISSN: 0924-0136, pg.237-241, Elsevier Science, 2003.(**ISI Journal, impact factor 1.420, zona rosie)**

35. **Gabriel Benga**, Alexandre Mendes Abrao – *Vida da ferramenta e acabamento superficial no torneamento a seco* – Maquinas e Metais, Nr. 435, Editora Aranda, ISSN 0025-2700 pg. 312-323, Brazil, Abril 2002.

Brevete de inventie:

Numar: **RO125713**

Material bicompozit si procedeu de elaborare a acestuia

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