



UNIVERSITATEA „VASILE ALECSANDRI” din BACĂU

*Facultatea de Inginerie*

Calea Mărășești, Nr. 157, Bacău, 600115, Tel./Fax +40 234 580170

<http://inginerie.ub.ro>; e-mail: [decaning@ub.ro](mailto:decaning@ub.ro)



**Tematică de concurs pentru ocuparea postului de profesor, poziția 3, din Statul de Funcții și de Personal Didactic al Departamentului Ingineria și managementul sistemelor industriale din anul universitar 2023-2024:**

- 1. Orientarea pieselor pe suprafețe plane și muchii drepte: sisteme de orientare caracteristice, rezeme specifice, erori de orientare;**
  - Rață-Muntean Vasile, Severin Traian Lucian – Managementul proiectării dispozitivelor mecanice, Ed. Matrix Rom, București, 2008, ISBN 978-973-755-439-0
  - Susac Florin, Tăbăcaru Valentin - Proiectarea dispozitivelor de prelucrare în construcția de mașini : bazele proiectării dispozitivelor de prelucrare : suport de curs, Galati University Press, Galați, 2018, ISBN 978-606-696-127-1
  - Hoffman Edward – Jig and fixture design, Fifth edition, Delmar, Cengage Learning, 2004, ISBN 978-1-4018-1107-5
  
- 2. Managementul inovării tehnologice: ce este inovarea, importanța inovării tehnologice, provocări;**
  - Nagiț Gheorghe – Inovare tehnologică, Ed. Tehnica-Info, Chișinău, 2001, ISBN 9975630413
  - Popescu Maria – Managementul inovării, Editura Universității Transilvania din Brașov, 2016, ISBN 978-606-19-0759-5
  - Albert Link, Donald Siegel – Innovation, entrepreneurship, and technological change, Oxford University Press, 2007, ISBN 978-0-19-926883-2
  - Monica Bordegoni, Caterina Rizzi (eds.) – Innovation in product design – from CAD to virtual prototyping, Springer-Verlag London, 2011, ISBN 978-0-85729-774-7
  - Mikel Sorli, Dragan Stokic – Innovating in product/process development. Gaining pace in new product development, Springer-Verlag London, 2009, ISBN 978-1-84882-544-4
  - Melissa Schilling – Strategic management of technological innovation, 4th ed., McGraw-Hill, ISBN 978-0-07-802923-3
  
- 3. Procesul de formare a așchii: mecanismul deformării plastice la așchiere, structuri de deformare caracteristice așchierii metalelor, tipuri de așchii;**
  
- 4. Uzura și durabilitatea sculelor așchietoare: mecanisme și tipuri de uzură, criteriile de uzură și durabilitate a sculelor;**
  - Teodor Virgil – Bazele proceselor de prelucrare prin așchiere, Universitatea „Dunărea de Jos” Galați, Galați, 2008
  - Cristea Ion, Gherghel Mihai – Bazele generării suprafețelor prin așchiere, Ed. Tehnica-Info, Chișinău, 2002, ISBN 9975631576
  - Hassan Abdel-Gawad El-Hofy – Fundamentals of machining processes. Conventional and nonconventional processes, 2nd ed., CRC Press, 2014, ISBN 978-1-4665-7703-9
  - Fritz Klocke – Manufacturing processes 1. Cutting, Ed. Springer-Verlag, Berlin Heidelberg, 2011, ISBN 978-3-642-11978-1
  - J. Paulo Davim (ed.) – Metal cutting technologies, Ed. De Gruyter Oldenbourg, Berlin, 2016, ISBN 978-3-11-044942-6
  
- 5. Tehnologia prelucrării materialelor plastice prin injectare; bazele procesului de injectare;**
  
- 6. Prelucrarea prin extrudare a materialelor plastice;**
  - Fetecău Cătălin – Prelucrarea maselor plastice, Universitatea „Dunărea de Jos” Galați, Galați, 2008

- Șereș Ion – Injectarea materialelor termoplastice, Ed. Imprimeriei de Vest, Oradea, 1996, ISBN 973-97652-6-2
- ARBURG – Practical guide to injection moulding, Rapra Technology Limited, 2004, ISBN: 1-85957-444-0
- Pierre Lafleur, Bruno Vergnes – Polymer extrusion, ISTE Ltd, 2014, ISBN 978-1-84821-650-1
- Paul Mastro – Plastics product design, Scrivener Publishing, Wiley, 2016, ISBN 978-1-118-84271-3
- Donald Rosato – Plastics en duse applications, Springer, 2011, ISBN 978-1-4614-0244-2

## **7. Prelucrarea datelor experimentale – planuri de experimente factoriale de tip 2<sup>n</sup>.**

- Schnakovszky, C., ș.a. – Ingineria și modelarea sistemelor de producție, Editura Tehnica Chișinău, 1998, ISBN 9975910505
- Kamel Rekab, Muzaffar Shaikh – Statistical design of experiments with engineering applications, CRC Press, ISBN 978-1-4200-5631-0
- S.J. Morrison – Statistics for engineers an introduction, Wiley, 2009, ISBN: 978-0-470-74556-4
- Jiju Antony – Design of experiments for engineers and scientists, 2nd ed., Elsevier, 2014, ISBN: 978-0-08-099417-8
- J. Paulo Davim (ed.) – Design of experiments in production engineering, Springer, 2016, ISBN 978-3-319-23837-1

### **1. Workpiece alignment on flat surfaces and straight edges: characteristic alignment systems, specific bearings, aligning errors;**

- Rață-Muntean Vasile, Severin Traian Lucian - Managementul proiectării dispozitivelor mecanice [Mechanical Devices Design Management], Matrix Rom Publishing House, Bucharest, 2008, ISBN 978-973-755-439-0
- Susac Florin, Tăbăcaru Valentin - Proiectarea dispozitivelor de prelucrare în construcția de mașini: bazele proiectării dispozitivelor de prelucrare: suport de curs [Design of Machining Devices in Machine Construction: Basics of Machining Device Design: Course Notes], Galati University Press, Galati, 2018, ISBN 978-606-696-127-1
- Hoffman Edward - Jig and fixture design, Fifth edition, Delmar, Cengage Learning, 2004, ISBN 978-1-4018-1107-5

### **2. Technology innovation management: what is innovation, importance of technology innovation, challenges;**

- Nagiț Gheorghe - Inovare tehnologică [Technological Innovation], Tehnica-Info Publishing House, Chisinau, 2001, ISBN 9975630413
- Popescu Maria - Managementul inovării [Innovation Management], Transilvania University of Brasov Publishing House, 2016, ISBN 978-606-19-0759-5
- Albert Link, Donald Siegel – Innovation, Entrepreneurship, and Technological Change, Oxford University Press, 2007, ISBN 978-0-19-926883-2
- Monica Bordegoni, Caterina Rizzi (eds.) – Innovation in Product Design – From CAD to Virtual Prototyping, Springer-Verlag London, 2011, ISBN 978-0-85729-774-7
- Mikel Sorli, Dragan Stokic – Innovating in Product/Process Development. Gaining Pace in New Product Development, Springer-Verlag London, 2009, ISBN 978-1-84882-544-4
- Melissa Schilling – Strategic Management of Technological Innovation, 4th ed., McGraw-Hill, ISBN 978-0-07-802923-3

### **3. Chip formation process: plastic deformation mechanism during cutting, metal-cutting deformation structures, types of chips;**

### **4. Cutting tool wear and durability: mechanisms and types of wear, criteria for tool wear and durability;**

- Teodor Virgil - Bazele proceselor de prelucrare prin așchiere [Basics of Machining Processes by Cutting], "Dunărea de Jos" University of Galati, Galati, 2008
- Cristea Ion, Gherghel Mihai - Bazele generării suprafețelor prin așchiere [Basics of Surface Generation by Cutting], Tehnica-Info Publishing House, Chisinau, 2002, ISBN 9975631576

- Hassan Abdel-Gawad El-Hofy - Fundamentals of machining processes. Conventional and Nonconventional Processes, 2nd ed., CRC Press, 2014, ISBN 978-1-4665-7703-9
- Fritz Klocke - Manufacturing Processes 1. Cutting, Springer-Verlag, Berlin Heidelberg, 2011, ISBN 978-3-642-11978-1
- J. Paulo Davim (ed.) - Metal Cutting Technologies, De Gruyter Oldenbourg, Berlin, 2016, ISBN 978-3-11-044942-6

**5. Plastics injection moulding technology; basics of the injection moulding process;**

**6. Plastics extrusion processing;**

- Fetecău Cătălin - Prelucrarea maselor plastice [Plastics Processing], "Dunărea de Jos" University of Galati, Galati, 2008
- Şereş Ion - Injectarea materialelor termoplastice [Injection Moulding of Thermoplastic Materials], Imprimeriei de Vest Publishing House, Oradea, 1996, ISBN 973-97652-6-2
- ARBURG - Practical Guide to Injection Moulding, Rapra Technology Limited, 2004, ISBN: 1-85957-444-0
- Pierre Lafleur, Bruno Vergnes - Polymer extrusion, ISTE Ltd, 2014, ISBN 978-1-84821-650-1
- Paul Mastro – Plastics Product Design, Scrivener Publishing, Wiley, 2016, ISBN 978-1-118-84271-3
- Donald Rosato – Plastics en Duse Applications, Springer, 2011, ISBN 978-1-4614-0244-2

**7. Experimental data processing - 2<sup>n</sup> factorial design.**

- Schnakovszky, C., et.a. - Ingineria și modelarea sistemelor de producție [Engineering and Modelling of Production Systems], Technical Publishing House Chisinau, 1998, ISBN 9975910505
- Kamel Rekab, Muzaffar Shaikh – Statistical Design of Experiments with Engineering Applications, CRC Press, ISBN 978-1-4200-5631-0
- S.J. Morrison – Statistics for Engineers an Introduction, Wiley, 2009, ISBN: 978-0-470-74556-4
- Jiju Antony – Design of Experiments for Engineers and Scientists, 2nd ed., Elsevier, 2014, ISBN: 978-0-08-099417-8
- J. Paulo Davim (ed.) – Design of Experiments in Production Engineering, Springer, 2016, ISBN 978-3-319-23837-1

Director Departament I.M.S.I.  
Ş.l. dr. ing. Eugen HERGHELEGIU