



Universitatea  
Transilvania  
din Braşov

**ADMITERE DOCTORAT 2020-2021**

**Sesiunea Septembrie 2020**

**Şcoala Doctorală Interdisciplinară  
(SDI)**

**Domeniul de doctorat:**  
Inginerie Mecanică  
**Conducător doctorat:**  
Prof.dr.ing. Radu Velicu

### **TEME (TEMATICĂ) PENTRU CONCURS**

**TEMA 1:** Studiu frecărilor dintre lanţ şi patina de întindere

**Conţinut / Principalele aspecte abordate:** Forţe în transmisii prin lanţ, Lanţuri de distribuţie, Pierderi prin frecare în lanţ (determinare experimentală si teoretică).

**Bibliografie recomandată:**

1. Horovitz, B. s.a. Transmisii şi variatoare prin curele şi lanţuri, Ed. Tehnica, Bucureşti, 1971.
2. Hyakutake, T., Inagakia, M., Matsuda, M., Measurement of friction in timing chain, JSAE, Japan, p. 343-347, 2001.
3. Gafitanu, M., s.a, Organe de masini, vol. 2, Ed. Tehnica, Bucuresti, ISBN 973-31-1400-6, 973-31-1527-4, 2002.
4. Velicu, R., Papuc, R., Gavrilă, C.C., Popa, S. Experimental study on guide friction contribution in global power loss of a tooth chain transmission, IOP Conference Series: Materials Science and Engineering, 174 (1), 2017
5. Velicu, R., Lateş, M. On the Measurement Procedure for Testing Friction in Bearing Mountings, Annals of the Oradea University, Fascicle of Management and Technological Engineering, Volume XXIV, (XIV) Oradea, 2015, p. 53-58, ISSN 1583-0691(e)

**Conducător doctorat:**

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Transilvania  
University  
of Brasov

## ADMISSION TO DOCTORAL STUDIES

2020-2021

Session September 2020

**Interdisciplinary Doctoral School  
(SDI)**

**Field of doctoral studies:**

Mechanical Engineering

**PhD supervisor:**

Prof.dr.ing. Radu Velicu

### TOPICS FOR THE ADMISSION TO DOCTORAL STUDIES

**TOPIC 1:** Friction between chain and guide

**Content / Main aspects to be considered** - Forces in chain transmissions; Timing chains; Friction losses in chains (theory and testing)

**Recommended bibliografy:**

1. Horovitz, B. s.a. Transmisii și variatoare prin curele și lanțuri, Ed. Tehnica, București, 1971.
2. Hyakutake, T., Inagakia, M., Matsuda, M., Measurement of friction in timing chain, JSAE, Japan, p. 343-347, 2001.
3. Gafitanu, M., s.a, Organe de masini, vol. 2, Ed. Tehnica, Bucuresti, ISBN 973-31-1400-6, 973-31-1527-4, 2002.
4. Velicu, R., Papuc, R., Gavrilă, C.C., Popa, S. Experimental study on guide friction contribution in global power loss of a tooth chain transmission, IOP Conference Series: Materials Science and Engineering, 174 (1), 2017
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