



**ADMITERE DOCTORAT**

**Sesiunea Septembrie 2022**

**Domeniul de doctorat: Inginerie Mecanică**

**Conducător de doctorat: Prof. Dana Motoc**

**TEME (TEMATICĂ) PENTRU CONCURS**

**TEMA 1:** *Analiza dinamicii impactului autovehicul-vehicul cu 2 roţi*

**Bibliografie recomandată:**

- J. Kisilowski, J. Zalewski – Modeling of road traffic events, Springer, 2022.  
D. Struble, J. Struble – Automotive accident reconstruction. Practices and principles. CRC Press, 2020.  
H. Franck, D. Franck – Mathematical methods for accident construction. A forensic engineering perspective, CRC Press, 2009.  
R. Brach, R. M. Brach – Vehicle accident analysis and reconstruction methods, SAE International, 2011

**TEMA 2:** *Optimizarea sistemelor de absorbţie a energiei în impactul autovehiculului*

**Bibliografie recomandată:**

- J. Kisilowski, J. Zalewski – Modeling of road traffic events, Springer, 2022.  
D. Struble, J. Struble – Automotive accident reconstruction. Practices and principles. CRC Press, 2020.  
A. Elmarakni – Advanced composite materials for automotive applications, Wiley, 2013.  
M. Koc, T. Ozel – Modern Manufacturing processes, Wiley, 2020.  
S. Hiermaier – Structures under crash and impact, Springer, 2008.

**TEMA 3:** *Cercetări privind îmbunătăţirea metodelor de investigare a accidentelor rutiere frontale*

**Bibliografie recomandată:**

- J. Kisilowski, J. Zalewski – Modeling of road traffic events, Springer, 2022.  
D. Struble, J. Struble – Automotive accident reconstruction. Practices and principles. CRC Press, 2020.  
H. Franck, D. Franck – Mathematical methods for accident construction. A forensic engineering perspective, CRC Press, 2009.  
R. Brach, R. M. Brach – Vehicle accident analysis and reconstruction methods, SAE International, 2011

**TEMA 4:** *Cercetări asupra influenței parametrilor care afectează performanța sistemului de frânare a autovehiculului*

**Bibliografie recomandată:**

B. Lenzo – Vehicle dynamics fundamentals and ultimate trends, Springer, 2022.

D. Schramm, et al. – Vehicle dynamics modeling and simulation, Springer, 2014.

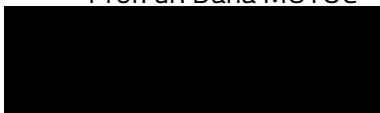
H. B. Pacejka – Tyre and vehicle dynamics, Elsevier, 2006.

C. Owen – Automotive braking systems, 2013.

J. Erjavec – Automotive technology: brakes, 2010.

**Conducător de doctorat,**

Prof. dr. Dana MOTOȘ



**Coordonatorul domeniului de doctorat,**

Prof. dr. Sorin VLASE

