INFORMAČNÝ LIST PREDMETU

Vysoká škola: Trenčianska univerzita Alexandra Dubčeka v Trenčíne

Fakulta: Fakulta špeciálnej techniky

Kód predmetu: KKaŠT/2-23/d/18	**Názov predmetu:** Diagnostics of Machines I.

Druh, rozsah a metóda vzdelávacích činností:
Forma výučby: Prednáška / Cvičenie / Laboratórne cvičenie
Odporúčaný rozsah výučby (v hodinách):
Týždenný: 0 / 0 / 2 **Za obdobie štúdia:** 0 / 0 / 24
Metóda štúdia: prezenčná

Počet kreditov: 6

Odporúčaný semester/trimester štúdia:

Stupeň štúdia: N

Podmieňujúce predmety:

Podmienky na absolvovanie predmetu:
100% participation in exercises, fulfillment of assigned tasks of individual exercises and professional terminology (max. 2 excused absences), elaboration of semestral work, individual work for non-participation in exercises. Final evaluation: written test with emphasis on theoretical knowledge from the main part of the subject and oral answer (max. 40 points). Rating: (E): 22-25 points, (D): 26-29 points, (C): 30-33 points, (B): 34-37 points, (A): 38-40 points.

Výsledky vzdelávania:
The student has a cross-sectional knowledge and overview of technical diagnostics, and individual diagnostic methods. They will also gain knowledge and knowledge of engine, transmission and chassis diagnostics, diagnostics of groups, subgroups and components, machine performance parameters, clearances in mechanisms, tightness of working areas, etc. parallel and serial diagnostics of electrical and electronic systems.

Stručná osnova predmetu:
Basic principles of technical diagnostics. Diagnostic systems, object models. Recognition in diagnostics. Methods, organization and means of technical diagnostics. Physical methods technical diagnostics, noise, acoustic emission, vibration, temperature, tribotechnical methods, defectoscopic methods. Applications of technical diagnostics in the field of special mobile technology, cars and machinery. Engine, transmission and chassis diagnostics, group diagnostics, sub - groups and components. Diagnostics of machine performance parameters, clearances in mechanisms, tightness workspaces. Parallel and serial diagnostics of electrical and electronic systems.

Odporúčaná literatúra:
[1] MOHANTY, A.R.: Machinery Condition Monitoring, Priciples and Practices. CRC Press Boca Raton, USA, 2015, 2031 pp., ISBN 978-1-4665-9304-6.
[2] VACHTSEVANOS, G., LEWIS, F.L., ROEMER, M., HESS, A., WU, B.: Intelligent Fault Diagnosis and Prognosis for Egnineering System. Wiley, New Jersey, USA, 429 pp, ISBN 978-0-471-72999-0.
[3] ISERMANN, R.: Fault-Diagnosis Applications, Springer, Berlin, 345 pp, ISBN 978-3-642-12767-0.

Jazyk, ktorého znalosť je potrebná na absolvovanie predmetu:

English

Poznámky:

Hodnotenie predmetov
Celkový počet hodnotených študentov: 19

A	B	C	D	E	Fx
47.37	31.58	15.79	0.0	5.26	0.0

Vyučujúci: Ing. Marcel Kohutiar, PhD.

Dátum poslednej zmeny: 27.09.2022

Schválil: