

**T6\_75 REAL INTERACTIVE FREE FALL EXPERIMENT WITH DATA COLLECTION AND TRANSFER ACROSS INTERNET**

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Within the strategy of Integrated e-Learning (INTE-L ) [1] in the unit of Mechanics we set up a set of remote interactive Mechanics experiments across the Internet [2], controlled by the web services (as web browser), using measuring hardware and software measuring Intelligent School Experimental System (ISES) with sensing units for data collection, recording and evaluation and the software ISES WEB CONTROL kit for the establishing the server. The paper presents a new and sophisticated experiment Free fall, based on the movement of permanent magnet in a glass tube with induction pick up coils for position measurement. Besides the air the tube is supposed to be filled with various liquids to study damped motion and corresponding viscosities. To transfer the hands-on experiment to the remote one, we have had to move the magnets to their starting position by the magnetic vessel, surrounding the tube. The experiments was with success used within the electromagnetic induction teaching unit for the study of the basis of the Faradays' law. [1] Schauer, F., Ožvoldová and F. LUSTIG, "Integrated e-Learning – New Strategy of Cognition of Real World in Teaching Physics" Innovation 2009, World Innovations in Engineering Education and Research, USA, iNEER Special Volume 2009, accepted for publication, 2009. [2] Schauer, F., Ožvoldová, M., ČERŇANSKÝ, P., KOZÍK, T., VÁLKOVÁ, L., Šlaninka, A., Žovinová, M., Majerčík, P., Tkáč, L.: Slovak e-Laboratory of remote interactive experiments for university teaching by Integrated e-Learning strategy, In: Jakab, F. – Fedák, V.: ICETA 2008 6th International Conference on Emerging eLearning Technologies and Applications, 11.–13. september 2008 Stará Lesná, the High Tatras, Slovak Republic, elfa, s. r. o. Košice 2008, s. 467 – 472, ISBN: 978-80-8086-089-9