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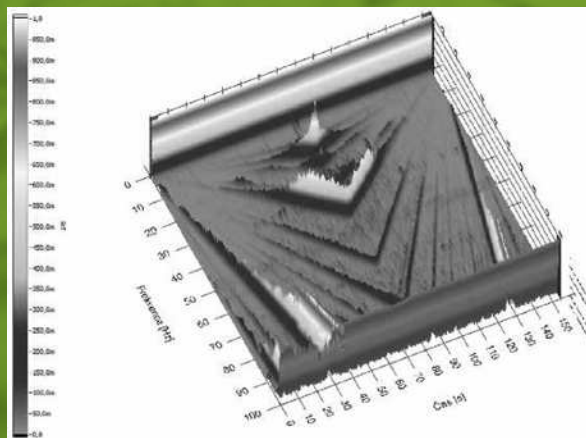
## Professor

**Leszek A. Dobrzanski M Dr hc**  
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Dear Readers,

The next issue of Archives of Materials Science and Engineering is ready to hand over to PT Readers. We thank PT Authors, PT Readers, PT Reviewers and all PT Staff for sticking faithfully to our title. The number of papers published in AMSE Journal is a few hundred and the number of citations includes a list of several thousand items. This proves that the title is needed, well serves the scientific community and have helped many people to shape their own academic career. Undoubtedly, the availability of full texts of all papers in the form of open access in the Internet supports the dissemination. I would like to inform that we publish in it as usual a few next scientific papers. Encouraging P.T. Authors to submit papers for the publication, today I recommend reading these research papers. I hope that the reading of this issue will bring you satisfaction.



The paper entitled "The conception of the experimental rail vehicle" by R. Doleček and O. Černý on a page 82 presents the advance configuration and the installation of vehicle components to the experimental rail vehicle powered by the traction battery. Particularly the paper focuses on the research problems of the construction of the experimental rail vehicle (bogie), the structure of electrical equipment of experimental rail vehicle (traction drive, control system, power supply system and the research problems of the influence between the different systems placed on the experimental rail vehicle are mentioned as well. The design of the experimental rail vehicle which has a foursome mechanically independent drives and each drive has own DSP controller, is specific. The mentioned configuration ensures the coordination of the traction forces between traction drives, which create one bogie with independently rotating wheels, provides the necessary energy flows. For the reason of the effects of the control to running characteristics the experimental rail vehicle has a lot of sensors and the other measuring devices. The problems of EMC – influence elimination of traction drive with PMSMs, control and measurement are solved. The sophisticated structure of the conception of the vehicle, which is expected to minimize the influence to the sensitive precision measuring equipment from, was designed during the development of the experimental rail vehicle (the minimization was achieved by LCD and LC filter modules). The special conception of rail vehicle, which is mechanically designed by Rolling Stock Research Institute, is constructed at the JPTF for the purposes of experimental research on vehicles with independently rotating wheels.