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پردیس فنی و مهندسی شهید عباسپور، دانشکده مهندسی مکانیک و انرژی، ۱۳ و ۱۴ آذرماه ۱۳۹۷

مدت زمان کارگاه : 3 ساعت

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## Experience of Diagnostics of Railway Rolling Stock Using Vibration Analysis Method

### معرفی کارگاه

The 25 years of experience in vibration diagnostics of the locomotives in Russia are described. The methods of condition assessment of box bearings, traction motor bearings, gearbox have been designed and applied in the Russian railways. Special methods of vibration measurements and peculiarities of measurements points selection, preparation, accelerometer mountings, selection of rotation speed during measurements and influence of load point are described. Vibration data processing, main and additional symptoms for defects are presented. The statistics over 3 million bearings and 4 thousand of confirmed bearings defects are presented along with vibration spectra and photos of defects. The economic effect of condition assessment as a base for maintenance and repair planning is discussed.

### محتویات کارگاه

- Brief Introduction of Vast Company
- The methods of condition assessment of box bearings and traction motor bearings
- Vibration data processing
- Fault diagnosis and Case studies in the Russian railways
- The economic effect of condition assessment

شرکت فنی مهندسی ویستا پایش راد

**Anton Azovtsev**

### معرفی مدرس



Director International Operations Association VAST, Ltd. Graduated from the Leningrad State University, department of Physics, Works in vibration diagnostics since 1992 starting as engineer in signal processing and vibration analysis. Has more than 20 publications in vibration analysis and condition monitoring. The railway diagnostics was first described in 1996 Anton Azovtsev also works in the North-West educational center presenting lectures and seminars in condition diagnostics in Russia and other countries.

**Sergey Degterev**



Operations Director of the VAST-Service Ltd. VAST-Service is the service company that serves Russian Railway in condition diagnostics all over the country. Sergey Degterev initiated the company and was among the team who introduced the condition diagnostics service in Russian Railways, he took part in the design of the algorithms and railway applications of the condition monitoring and diagnostics. He works in vibration analysis since 2001 and has a number of publications in vibration diagnostics in railways.

### هزینه کارگاه

این کارگاه به صورت رایگان با حمایت شرکت فنی مهندسی ویستا پایش راد برگزار خواهد شد.