10TH INTERNATIONAL CONFERENCE ON RAILWAY BOGIES AND RUNNING GEARS
September 12 – 15, 2016
BUDAPEST, HUNGARY

PROGRAMME

BOGIE '16

SCIENTIFIC SOCIETY OF MECHANICAL ENGINEERS
DEPARTMENT OF ROLLING STOCK
BUDAPEST
2016
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Issued by the Department of Rolling Stock at the GTE, Budapest, 2016
Registration Time
at the Conference Centre of the
Budapest University of Technology
and Economics, Building A
Budapest, distr. XI. Egry József street 20 – 22, ground floor

11 September 2016: **16:00 - 20:00, Welcome Buffet**
12 September 2016: **7:30 - 15:00**
13 September 2016: **8:00 - 15:00**
14 September 2016: **8:00 - 13:00**
15 September 2016: **8:00 - 16:00**

You are welcome as a participant of our Conference. We hope that you will be enriched with a great deal of new information both in your special field and in human relations.

If any question would arise in connection with the Conference, please contact our professional organiser

**Mr. Gábor TÔTH**

at the registration desk.

*The Organising Committee*
PROGRAMME OF THE CONFERENCE

Official Languages:
*English - Hungarian*
Simultaneous interpreters will be provided

FIRST DAY
12 September, 2016  -  9:00
Opening Ceremony, Festive Addresses

9:25  *Lectures*  Chairman: I. ZOBORY (Hungary)

9:25 - 9:45  KRETTEK, O.  (Germany)
Running Behaviour Vehicle Development Versus Track Construction

9:50 - 10:10  SZÉCSEY, I.  (Hungary)
Siemens Bogie Technology

10:15 - 10:45  COFFEE BREAK

10:45  *Lectures*  Chairman: O. KRETTEK (Germany)

Application of a Double Helical Gear Driving Device to High Speed Railway Vehicle

11:05 – 11:30  MELNIK, R. – SOWINSKI, B.  (Poland)
Simulation Study of a Tractive Rail Vehicle with Differential Gears

11:35 – 11:55  STEENBERGEN, M.  (The Netherlands)
Rail Grinding Techniques & The Rolling Contact Fatigue Lifecycle

12:00 – 12:20  MYAMLIN, S.V. – BARANOVSIIY, D.  (Ukraine)
Development of New Bogies Freight Cars for Narrow-Gauge Railways.
12^30 - 12^40  **CONFERENCE PHOTO** (in front of Bldg. A)

12^40 - 14^00  **LUNCH BREAK**

14^00  **Lectures**  Chairman: S. STICHEL  (Sweden)

14^00 - 14^20  BRACCIALLI, A. – MEGNA, G.  (Italy)
Inside Frame Bogies & AIR Wheelset: A Winning Marriage

14^25 - 14^45  PORGES, O.  (Switzerland)
On the Development and Design of New Vehicles for the Wuppertal Monorail

14^50 - 15^10  SZÁNTÓ, F.  (Australia)
Curving Resistance In Freight Trains On Grades

15^15 - 15^40  **COFFEE BREAK**

15^40  **Lectures**  Chairman: CH. SCHINDLER  (Germany)

15^40 – 16^00  MATSUMOTO, A. – MICHITSUJI, Y.  (Japan)
Flange-Climb Derailments of Freight Trains on Curved Tracks Due to Rolling

16^05 – 16^25  FRIDRICHOVSKY, T  (Czech Republic)
Analysis of Occurrence of Torsional Oscillations in Wheelset Drives Used in Modern Railway Vehicles

16^30 – 16^50  WU, T. – FANG, G.  (P.R. China)
On the Measurability of Rail Unevenness and Corrugation Via Bogie’s Dynamic Response

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18^00 - 22^00  **CONFERENCE RECEPTION**
in the **DANUBE HALL** of the **BME**,  
Bldg. K, Floor 1, No. 2.  
Budapest, distr.XI. Müegyetem rkp. 3.

The Reception is sponsored by the **STADLERTRAINS HUNGÁRIA Ltd. (H)**  
and the **SIEMENS (H)**
SECOND DAY
13 September, 2016 - 9:00

9:00 Lectures Chairman: A. CHUDZIKIEWICZ (Poland)

9:00 - 9:20 FERENCZ, P. (Hungary)
Lifetime Extension Possibilities of Stadler Bogie Force
Transmission Elements on the Basis of Test Results

9:25 - 9:45 SZABÓ, A. – PARÁZSÓ, J. (Hungary)
Determination of the Dynamical Effect of the Wheel Flattening
by Means of Simulation Method

(P.R. China + Sweden)
Prediction and Validation of Wheel Profile Wear on a Chinese High-Speed Train

10:15 - 10:45 COFFEE BREAK

10:45 Lectures Chairman: F. KOLONITS (Hungary)

10:45 - 11:05 LEKUE, J. – DÖRNER, F. - SCHINDLER, CH. (Germany)
Determination of the Measurement Accuracy of the Prescale
Pressure Measurement Film in the Wheel-Rail Contact

11:10 - 11:30 CHUDZIKIEWICZ, A. (Poland)
Wear of Wheel and Rail Profiles Under Operating Conditions of Subway Vehicles

11:35 - 11:55 FRIDBERG, A.M. (Russia)
Wave-Like Contact Interaction of Rolling Elastic Bodies
(Wheel/Rail)

12:00 - 12:20 STASKIEWICZ, T. – FIRLIK, B. (Poland)
Influence of Wheel Profile Geometry on Running Characteristics of Light Rail Vehicles

12:25 - 14:00 LUNCH BREAK

14:00 Lectures Chairman: S. BRUNI (ITALY)

14:00 - 14:20 KRIPLANI, L.K. – VYAS, N. S. (India)
Rolling radius function based optimization of rail/wheel

14:25 - 14:45 RICHTER, W.-D. (Germany)
Wheel and Rail Corrugation - What We Know and What We Ignore…

14:50 - 15:10 NERLICH, I. (Switzerland)
Benefit of “track gentle rolling stock” expected track maintenance costs of new services in the future?
15\textsuperscript{15} - 15\textsuperscript{45} \textit{COFFEE BREAK}

15\textsuperscript{45} \textbf{Lectures} Chairman: \textbf{O. POLACH} (Switzerland)

15\textsuperscript{45} - 16\textsuperscript{05} \textbf{CSÉPKE, R.} (Hungary)
Railway Rail/Wheel Contact in Curves of Small Radii

16\textsuperscript{10} - 16\textsuperscript{30} \textbf{SCHMID, R.} (Austria)
Running Gears – An Infrastructure Manager’s View from the Track Side

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\textit{LATE AFTERNOON – EVENING PROGRAM}

\textit{RAILWAY MUSEUM PARTY}

\textit{sponsored by the}

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Buses leave the \textit{Conference Centre} at 17\textsuperscript{00}

After the Party
buses return by cca. 22\textsuperscript{00}
THIRD DAY
14 September, 2016 - 900

900  **Lectures**  
Elnök: J. CSIBA (Hungary)

900 - 920  
DOLCHINI, A. – KUKA, N. – VERARDI, R. - ARIAUDO, C.  
(Italy)  
Closed Loop Simulation of Railway Vehicle Driveline

925 - 945  
MICHALEK, T. – ZELENKA, J. – SPALEK, P.  
(Czech Republik)  
Dynamic Behaviour of Locomotive with Pendulum Traction Drive

950 – 1010  
KOLONITS, F. (Hungary)  
Initial Conditions for Load History of a Wheel-Hub/Wheel-Seat Contact Realized by Thermal Shrink Fit Joint

1015 - 1045  **COFFEE BREAK**

1045  **Lectures**  
Chairman: N. S. VYAS (India)

1045 - 1105  
QUESANDA GONZALEZ, A. – RODRIGUEZ FERNANDEZ, S. – ÁLVAREZ CALDAS, C. – SAN ROMÁN GARCIA, J.L.  
(Spain)  
Uncertainty Determination In Structural Bogie Frame Finite Element Models

1110 – 1130  
GIROTTI, A. – SANGIRARDI, M. (Italy)  
Assessment Procedures on Fatigue Test for Railway Bogies

1135 – 1155  
HORVÁTH, G. (Hungary)  
Testing of Railway Antislip Devices in Hungary

1200 – 1220  
CHVOJAN, J. – KEPKA, M. (Czech Republik)  
Strength and Fatigue Testing of Bogie Parts: from Two to Twenty-Two Loading Forces

1225 - 1400  **LUNCH BREAK**

1400  **Lecture**  
Chairman: ZOBORY, I. (Magyarország)

1400 – 1420  
LUKÁCS, S. (Hungary)  
Establishment of the Maintenance Basis for the vehicles of the of the Budapest Metro Line No 4.  
*Introductory lecture to prepare the afternoon technical visit*

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AFTERNOON - EVENING PROGRAM:

1. Visiting the

METRO MAINTENANCE CENTRE

2. right after the visit:

CONFERENCE BANQUET

sponsored by the

KNORR-BREMSE
RAILWAY VEHICLE SYSTEMS HUNGARIA Ltd. (H)

Buses leave the Conference Centre at 14:45
After the Banquet
buses return to Budapest hotels by cca. 22:00
FOURTH DAY
14 September, 2016 - 900

900  Lectures  Chairman: A. SZABÓ (Hungary)
900 – 920  SCHÖLER, F. CORVES, B. (Germany)
          Multibody Simulation Based Design Load Calculation Using
          Representative Simulation Scenarios
925 - 945  CSIBA, J. (Hungary)
          Bogie Type Anniversary: The Bogie Type Y 25 Is Over 50 Years
950 - 1010  BIONDA, S. – BOCCIOLONE, M. – COLLINA, A. –
           DI GIALLEONARDO, E. (Italy)
           Rail Corrugation Growth On Sharp Curves Negotiated By A
           Vehicle Equipped With Resilient Wheels

1015 - 1045  COFFEE BREAK

1045  Lectures  Chairman: A. MATSUMOTO (Japan)
             TANAKA, T. – MYAMOTO, T. (Japan)
             Fundamental Study of Rotational Resistance of Shinkansen
             Bogie
             OHNO, H. – MORI, H. (Japan)
             Evaluation of a Steering Bogie about Running Resistance
             and Power Consumption
1135 – 1155  FINKE, SZ. – PIECHOWIAK, T. (Poland)
             Selection of Parameters for Bogie Simulation on the Basis
             of Experimental Research
1200 - 1220  ALFI, S. – MAZZOLA, L. – LIU, X. – ACCIALANZA,
             M.M. – BRUNI, S. (Italy)
             A System for the Condition Monitoring of Railway Bogies
             and of the Infrastructure

1225 - 1400  LUNCH BREAK

1400  Closing  Chairman: I. ZOBORY (Hungary)

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1400  CLOSING ADDRESS
      Farewell Drink
PROGRAM OF THE POSTER SESSION

Posters will be exhibited near the Lecture Room between 12 and 15 September 2016

Discussions can be realised in coffee breaks and every day before the Afternoon Sessions between 13:30 and 14:00

MYAMLIN, S. (Ukraine)
Developing the Innovative Design of Cars for the Tourist Railway Trains

CSÉPKE, R. (Hungary)
Railway Rail/Wheel Contact in Curves of Small Radii

KEPKA, M. (Czech Republic)
Competence Center of Rail Vehicles: Development and Testing of Mechanical Parts of Drives

KEPKA, M. - CHVOJAN, J. (Czech Republic)
Strength and Fatigue Testing of Bogie Parts: From Two to Twenty Two Loading Forces

STEENBERGEN, M. (The Netherlands)
Rail Grinding Techniques & The Rolling Contact Fatigue Lifecycle

SCHMID, R. (Austria)
Running Gears – An Infrastructure Managers View From the Track Side

KRETTEK, O. (Germany)
AVENIO prevails
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MAP OF THE **BME CAMPUS**

SITUATION OF THE **CONFERENCE HALL**

AND THE **DANUBE HALL**