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RAILWAY ENGINEERING—2009

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1-Day Registration Fee @ £240/day/person
 24th June, 25th June 2009 (please tick)

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2. **Railway Gazette International Innovation Award:** to be made for the best paper on Innovation in the Railway Industry.
3. **Geophysics & NDT Award:** to be made for the best paper on the use of geophysical or NDT techniques for investigating permanent way or structures.
4. **Research Award:** to be presented for the best paper by a University researcher.
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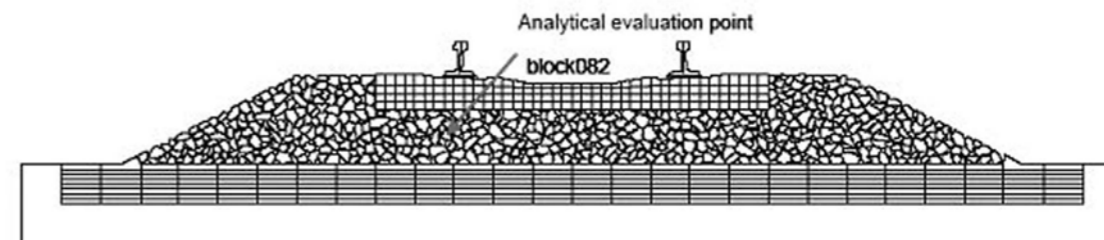
RAILWAY ENGINEERING — 2009

Final Call-for-Papers

10th International Conference and Exhibition

24th – 25th June 2009

Venue: University of Westminster, 35 Marylebone Road, London NW1, UK



“Maintenance + Renewal of Permanent Way, Points, Power + Signalling, Structures + Earthworks”

• 2-Day Registration at £460 stg • Daily Registration at £240 stg per day (early Registration = £385 before 31st March 2009)

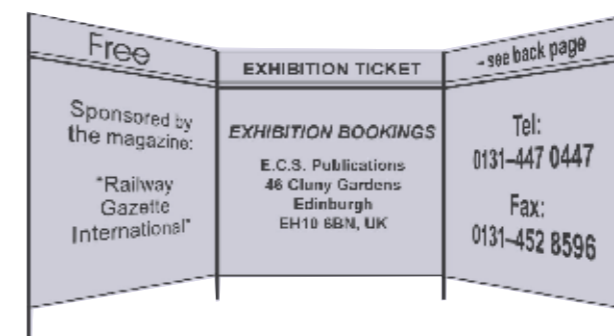
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Final Call-for-papers

A limited number of additional papers may be accepted. Email by 31st March 2009 to: Professor M.C. Forde, PhD, FREng, FRSE, Carillion Chair, University of Edinburgh editor@railwayengineering.com

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Day 1: Wednesday, 24th June 2009

Keynote Papers

- RESEARCH PRIORITIES FOR THE 2030 RAILWAY, Prof R Smith, Imperial College, London, UK
- USING VEHICLE DYNAMIC RESPONSE TO CHALLENGE SET TRACK STANDARDS, P Rogers, N Sherratt, Dr G Hunt & P Wiersma, DeltaRail Group Ltd, Derby, UK

Theme 1: Permanent Way, Rail

Maintenance

Management Planning & Operation (MPO)

- IMPROVING TRACK MAINTENANCE BY MONITORING WITH SCHEDULED HIGH-SPEED TRAINS, KU Wolter, Deutsche Bahn AG, Muenchen, Germany
- SYSTEMS ENGINEERING TOOLS & TECHNIQUES WITHIN RAILWAY INFRASTRUCTURE PROJECTS, A Finlayson & A Hefer, Ove Arup & Ptns Intl Ltd, Solihull, UK
- PROCUREMENT: DETERMINING THE "MOST ECONOMICALLY ADVANTAGEOUS OFFER", J Connolly, Carillion Construction Ltd, Stafford, UK
- SCIENTIFIC APPROACH TO MINIMUM ACTIONS, Dr L Smith & G Evans, Corus Rail Technologies, Rotherham, UK
- RISK BASED MAINTENANCE DECISION MAKING SYSTEM FOR RAILWAY ASSET MANAGEMENT, Dr M An, S Huang & Prof C Baker, Univ of Birmingham, UK
- ENHANCED DECISION SUPPORT FOR RAILWAY INFRASTRUCTURE MAINTENANCE, P Pace & P Cosoli, Mermec Group, Monopoli, Italy
- SAFETY HAZARD MANAGEMENT USING CASE BASED REASONING (CBR), Dr J Campbell, Dr S Smith & Prof MC Forde, Univ of Edinburgh, Scotland
- TECHNOLOGY TRANSFER IN RAILWAYS, Dr M Burrow, G Ghataora, C Roberts & M Clarke, Univ of Birmingham, UK
- RESEARCH PRIORITIES FOR 2030 RAILWAY, RK Upadhyay, CAO/COFMOW & M Goel, CME/ROAF, India
- METHODOLOGY FOR OPTIMIZATION OF LEVEL CROSSINGS, L Milić-Marković, & L Marković, Belgrade, Serbia

Increasing Railway Capacity & Costings (IRC)

- AGENT BASED CONTROL DELIVERS MORE BANG PER BUCK, I McCullough, Ansaldo STS, London, UK
- RAILWAY INFRASTRUCTURE MODIFICATIONS WITHOUT NEED FOR TRAFFIC SUSPENSION, KW Pang, MTR Corporation, Hong Kong
- SIMULATION MODEL FOR MIXED TRAFFIC ON SWEDISH DOUBLE-TRACK LINE, O Lindfeldt, Royal Inst of Tech, Stockholm, Sweden
- NEW TECHNIQUES OF RELIABILITY APPLIED TO ROLLING STOCK & INFRASTRUCTURE, M Starling, BMT Rail Ltd, Fareham, UK
- COMPARING THE INCOMPARABLE: COST STRUCTURES OF TRANSPORTATION SYSTEMS, Dipl.-Ing. R Schröter, Schöneicher-Rüdersdorfer Straßenbahn GmbH, Berlin, Germany
- ACCESSIBILITY FOR PERSONS WITH REDUCED MOBILITY, Dr Z Popovic, & L Puzavac, Univ of Belgrade, Serbia

Railway Design/Alignment/Standards (RDS)

- FUNCTION INTEGRATED TRACK SYSTEMS, Prof E Hohnecker, Univ of Karlsruhe, Germany
- MANIFESTO FOR A MODEL RAILWAY, MG Eaden, Mott MacDonald Railways, Croydon, UK
- NEW STANDARD FOR STATIC & DYNAMIC BEHAVIOUR ASSESSMENT OF RAILWAY TRACK SYSTEMS, M Acquati, Metro Milanese SpA, G Bono, Studio Tecnico ing Bono, Lecco, A Castoldi, P&P Cons Eng, Bergamo, & P Pezzoli, INDAPRO Indagini e Progetti, Bergamo, Italy
- TRACKLINE TWO™ – A STEP CHANGE IN MEASUREMENT OF TRACK GEOMETRY, A Powell, S King, E Chillingworth, DeltaRail Group Ltd, Derby, UK
- MANAGEMENT OF LARGE LATERAL FORCES IN SHARP CURVES USING AXLE-BOX ACCN & TRACK IRREGULARITIES, H Tanaka & A Furukawa, RTRI, Tokyo, Japan
- TRACK FORCES & THEIR RELATIONSHIP TO DEGRADATION OF TRACK GEOMETRY, Dr H Hawari & Dr MH Murray, Queensland Rail, Brisbane, Australia
- POWER SPECTRAL DENSITY (PSD) OF TRACK IRREGULARITY ON EXISTING RAILWAY LINES, X Liu, D Chen, & W Wang, China Academy of Railway Sci, Beijing, China

Rail Inspection (RI)

- ULTRASONIC GUIDED WAVE FOR RAIL BASE DEFECTS UNDER ROAD CROSSINGS, K Kataoka, East Japan Railway Co, Saitama-shi, Japan
- MONITORING RAIL CORRUGATION IN DISTANCE-WAVELENGTH DOMAIN USING ARCAP METHOD, Ci Hory, P Aknin, L Bouillaut, INRETS, Arcueil Cedex, S Bondeux, RATP, Fonyenay s/s Bois, France.

- MEASUREMENT & ANALYSIS OF MID WAVELENGTH RAIL IRREGULARITY, A Bracciali, T De Cicco, F Piccioli, Univ degli Studi di Firenze, Italy
- DEVELOPMENTS FOR NON-DESTRUCTIVE RAIL TESTING, T Heckel, Dr HM Thomas, BAM, Berlin & S Rühle PLR, Magdeburg, Germany

Rail Behaviour (RB)

- MAPS-SFT –MANAGEMENT OF STRESS FREE TEMPERATURE IN CWR, G Eckold & A Hayes, MAPS Technology Ltd, Abingdon, UK
- WEAR & RCF BEHAVIOUR OF CONVENTIONAL & HARD RAILS, A. Bracciali, T. De Cicco, F. Piccioli, Univ degli Studi di Firenze, Italy
- PERFORMANCE OF 2 INSULATED RAIL JOINTS: CONTINUOUS FIELD TEST DATA, WL Bayissa & M Dhanasekar, Queensland Univ of Technology, Brisbane, Australia

Rail Grinding (RG)

- HIGH SPEED GRINDING, A Puschel, Stahlberg Roensch GmbH & Co, Hamburg, Germany
- EFFICIENT RAIL GRINDING METHODS, J Kobayashi, East Japan Railway Co, Tokyo, Japan

Light Rail: Metros & Trams (LR)

- TRACKWORK RELIABILITY, MAINTAINABILITY, AVAILABILITY & SAFETY (RAMS), M Acquati, & G Garlone, Metro Milanese SpA, Milan, C Venturino, D'Appolonia SpA, Genoa, Italy
- INTEGRATING A MODERN TRAM INTO A HISTORIC CITY, SM Ney, Parsons Brinckerhoff, Edinburgh, UK
- LIGHT RAIL OPERATION D'APRÈS BOSTRAB CHALLENGES FOR INFRASTRUCTURE, R Schröter, Schöneicher-Rüdersdorfer Straßenbahn GmbH, Berlin, Germany
- ENGINEERING NEW LIGHT RAIL SCHEME - CASE STUDIES, Prof L Lesley, Liverpool, UK

Points, Switches, Turnouts (PST)

- SWITCH POINT DAMAGE & ELASTIC PROPERTIES OF TRACK SUPERSTRUCTURE, VL Markine, MJMM Steenbergen, TU-Delft & IY. Shevtsov, ProRail, Utrecht, The Netherlands
- SWITCH & TURNOUT DESIGN FOR A RELIABLE RAILWAY, D Bateman, Interfleet Technology Ltd, London, UK
- TURNOUT & TRACK MEASUREMENT SYSTEM, Dr J Madejski, Silesian Univ of Tech, Gliwice, Poland
- TURNOUT SYSTEM VIBRATION SIMULATION DURING TILTING TRAIN IN OPERATION, KY Eum, KRRI, Uiwang City, Korea
- POLYPROPYLENE REINFORCED CONCRETE PLATES FOR TRAM TURNOUTS PAVING, Prof S Lakusic, Prof M Skazlic & Prof V Tkalcic Lakusic, Univ of Zagreb, Zagreb, Croatia
- TURNOUTS & WHAT MAKES THEM WEAR, Dr W Jan Zwanenburg, EPFL-ENAC-LITEP, Lausanne, Switzerland
- PREDICTION OF INTENSITY OF VIBRATION AROUND CROSSING PART OF MANGANESE TURNOUT, KY Eum, KRRI, Uiwang City, Korea
- ANALYSIS OF DYNAMIC BEHAVIOUR OF TURNOUT STRUCTURES, Dr J Smutny, L Pazdera, Vukusic, TU-Brno, Czech Republic

Wheel-Rail–Rolling Stock Interaction-Tilting Trains (WRI)

- ADHESION AT THE WHEEL/RAIL INTERFACE, T Armitage, Arup, Solihull, UK
- WHEEL/RAIL INTERACTION ON NORWEGIAN RAILWAY NETWORK, H Gåsemyr, Jernbaneverket, Hamar, Norway
- USING GOTCHA TO OPTIMISE THE VEHICLE / TRACK INTERFACE & REDUCE MAINTENANCE COSTS, I Vermeij, Lloyd's Register Rail Europe B.V, The Netherlands
- ASSESSING WHEEL/RAIL CONTACT FORCES AMONG DIFFERENT SLAB TRACKFORMS IN A METRO TUNNEL, M Acquati, B Cavagna, Metro Milanese SpA, Milan, Italy, Dr B Lechner, Dr W Stahl & Dr J Liu, TU Munchen, Germany
- TRANSVERSAL & LONGITUDINAL FORCES EXERTED ON TRACK – PROBLEMS & SOLUTIONS, Dr C Pyrgidis, Aristotle Univ of Thessaloniki, Greece
- NUMERICAL TOOL FOR STUDYING WHEEL-RAIL CONTACT & WEAR, S H Mai, F Le-Corre, Alstom Transport, Saint-Ouen & B Nedjar, Institut Navier ENPC, Marne-La-Vallée, France
- GENERALIZED ENERGY INDEX (GEI) FOR EVALUATING VEHICLE/ TRACK SYSTEM, W Weidong, L Jinzhao, China Academy of Railway Sci, Beijing, China

Day 2: Thursday, 25th June 2009

Theme 1: Signalling, Electrification & Railway Trackbed

Signalling (SIG)

- MODERN ETHERNET & ITS APPLICATION IN RAILWAY SIGNALLING SYSTEMS, R Gardner, J Dickson, G Smith & G Kilgour, Network Rail, Glasgow, UK.
- SIGNALLING POWER SUPPLIES DERIVED FROM MV-DC TRACTION NETWORKS, RJ Leach, Parsons Brinckerhoff Rail, UK
- REDUCING WHOLE LIFE COST BY RE-SIGNALLING WITHOUT INTERRUPTION TO PASSENGER SERVICES - METRO MADRID, RI Multram, Bombardier Transportation RCS, Reading, UK
- USE OF FULL-FIDELITY SIMULATORS FOR TRAINING SIGNALLERS, T Salter, TRE Ltd, Westbury, UK
- CBI & COMPARATIVE LIFE CYCLE COSTS, J Wenham, Siemens plc, Solihull, UK

Communications Technology (CT)

- HARNESSING COMMUNICATIONS TECHNOLOGY TO ENHANCE SYSTEMS AVAILABILITY, T Hilleary, Ansaldo STS, USA & I McCullough, Ansaldo STS, London, UK

Electrification & Lighting (EL)

- ELECTRIFYING THE MOUND TUNNEL CENTRE BORE, M Wilmot, Ove Arup & Ptns Ltd, Manchester, UK
- UNDERSTANDING POWER SUPPLY FROM A RAILWAY OPERATING COMPANY'S PERSPECTIVE, D Hetherington, Mott MacDonald, Croydon & G White, London Underground, UK
- NEW GENERATION OF AWS INDUCTORS, ESTABLISHED VALUES, MODERN TECHNOLOGY, R Bointon, Vortok International, Plymouth, UK
- CERAMIC SOLVES TYPICAL PROBLEMS OF INSULATION RAIL JOINTS, J Bos, Movares, Utrecht, The Netherlands
- EFFICIENT ELECTRIFICATION, K Orgill, Overhead Line Eng Ltd, Rugby, UK
- DC PROTECTION CALCULATIONS – AN INNOVATIVE APPROACH, R. Leach, D. Tregay, M. Berova, Parsons Brinckerhoff Ltd, UK
- RAILWAY POWER SUPPLY INVESTMENT PLANNING CONSIDERING VOLTAGE DROPS, L Abrahamsson, Royal Institute of Technology, Stockholm, Sweden
- SKY IS THE LIMIT FOR LED LIGHTING, A Rawlinson, Marl International Ltd, Ulverston, UK
- STUDY OF VIBRATION SUPPRESSION DEVICE FOR ELECTRICAL RAILWAY POLE, M Tsunemoto, RTRI, Tokyo, Japan
- PREDICTION & APPLICATION OF TRANSIENT DC FAULT CURRENT ON 12-PULSE RECTIFIER FOR DC SUBSTATION, Dr S Goh, Mott MacDonald Ltd, Croydon, UK
- 25 KV RIGID OVERHEAD CATENARY SYSTEM IN 5.55m DIA TUNNEL FOR 3.9 x 3.2m COACHES IN DELHI METRO, S Kumar & Sharma, Delhi Metro Rail Corp, India

Railway Vehicle Technology & Maintenance (RVT)

- OUT-OF-ROUNDNESS OF A METRO VEHICLE BY MEANS OF ACOUSTIC MEASUREMENTS, A Bracciali, T. De Cicco, F. Piccioli, Univ degli Studi di Firenze, Italy
- STUDY ON DECISION OF RAIL VEHICLE MAINTENANCE POLICY, M Park, M An & F Schmid, Univ of Birmingham, UK
- ADVANCED FEM ANALYSIS OF SUPPORT BEAM OF A MODERN TRAM, A. Bracciali, T. De Cicco, F. Piccioli, Univ degli Studi di Firenze, Italy
- FAILURE ANALYSIS & REDESIGN OF A BRAKE CALLIPER SUPPORT, A Bracciali, T De Cicco, F. Piccioli, Univ degli Studi di Firenze, Italy

Sleepers & Ties (ST)

- HIGH ATTENUATION SLEEPER, I Robertson, F Le-Corre, Alstom Transport, Saint-Ouen & C Petet, Sabeta, Paris, France
- DETECTION OF RAIL SEAT ABRASION IN CONCRETE TIES USING AURORA AUTOMATED INSPECTION, C Villar, Georgetown Rail Equipment Co, TX, USA
- LIMIT STATES DESIGN & RATING OF CONCRETE SLEEPERS, Dr MH Murray, Queensland Univ of Technology, Brisbane, Australia & J Leong, Docklands Light Rail, London, UK
- AURORA AUTOMATED RAILROAD TIE CONDITION ASSESSMENT SYSTEM: QUEST FOR ACCURACY, W Wanami, Georgetown Rail Equipment Co, TX, USA
- FRAME SHAPED SLEEPER & IMPROVEMENT OF DURABILITY OF FASTENINGS FOR LARGE LATERAL FORCES IN SHARP CURVES, T Wada, JR East, Saitama, Japan
- TRIAL TRACK SECTION WITH UNDER SLEEPER PADS, Dr O Plášek, M Hruziková, Dr J Smutný, R Svoboda & V Salajka, TU-Brno, Czech Republic
- SENSING SLEEPER FOR DYNAMIC PRESSURE MEASUREMENT ON A SLEEPER BOTTOM INDUCED BY A RUNNING TRAIN, Dr A Aikawa, RTRI, Tokyo, Japan
- DESIGN OF FRICTIONAL CONCRETE SLEEPERS FOR INCREASING LATERAL RESISTANCE OF RAILWAY TRACK, Prof JA Zakeri, Iran Univ of Sci & Tech, Tehran, Iran
- UNDER SLEEPER PADS STANDARDIZATION TESTS, Dr O Plášek, M Hruziková & R Svoboda, TU-Brno, Czech Republic

Theme 2: Railway Structures & Geotechnics

Masonry Arch Bridges (MAB)

- CALDER VIADUCT FRP RE-DECKING, L Canning, N Speight, R Stephens, Y Dobson, Mouchel Ltd, West Byfleet, UK
- GPR TESTING OF BRICK MASONRY ARCH BRIDGES, J Cameron, Scott Wilson Scotland, Edinburgh, C Demoulin, Skanska, London, Dr N Diamanti, Aristotle Univ of Thessaloniki, Greece, Dr A Giannopoulos & Prof MC Forde, Univ of Edinburgh, Scotland
- DYNAMIC BEHAVIOUR OF RAILWAY BRIDGES, PK Woodward, Heriot-Watt Univ, Yong Lu, L Mao, Univ of Edinburgh, Scotland

Concrete Bridges (CB)

- U SHAPED VIADUCT CONCEPT FOR METRO OF DUBAI, D Dutoit, Systra, Paris, France
- MODULAR RAILWAY BRIDGE USING PRECAST SEGMENTAL SHELLS, S Bourne, Benaim, London, UK
- EVALUATION OF A TIED-ARCH REINFORCED CONCRETE RAILWAY BRIDGE, K Ozakgul, O Caglayan, O Tezer, E Uzgider & M Aydogan, Istanbul Tech Univ, Maslak, Turkey
- 150 KM OF U SHAPE PRESTRESSED CONCRETE DECKS FOR LRT VIADUCTS, Y Gauthier, S Montens, JC Vollerly, Systra, Paris, France

Metallic Bridges (MB)

- FATIGUE CRACK INSPECTION OF A RAILWAY BRIDGE WITH ELECTROCHEMICAL SENSOR SYSTEM, Dr M Moshier, Southern Utah Engrs, St. George, UT, M Miceli, Material Technologies, Inc, LA, CA & Dr BM Phares, Material Technologies, Inc, Ankeny, IA, USA
- LAUNCHED TRUSS BRIDGE AT GE19 OVER GREAT EASTERN LINE & TRUSS BRIDGE AT NEW CROSS GATE, D Brooke, Scott Wilson Railways, London, UK
- EVALUATION HEALTH MONITORING: FBG-BASED TO WUHAN TIANXINGZHOU YANGTZE RIVER RAIL-ROAD BRIDGE, Dr L Sheng-Chun, Prof J De-Sheng, Wuhan Univ of Tech, Hubei China,

Tunnels (TUN)

- STRUCTURAL FIRE PROTECTION OF RAILWAY TUNNELS, Dr F Tarada, Halcrow, London, UK
- RAIL TUNNEL SAFETY, Dr A Beard, Heriot-Watt Univ, Edinburgh, UK

Trackbed & Subgrade Inspection & Monitoring (TSI)

- TRACK SUBSTRUCTURE CHARACTERIZATION USING 500 MHz & 2 GHz GPR: COLORADO, WYOMING & ALASKA, R Roberts, GSSI, Salem NH, USA, A Kathage, GSSI, Borken, Germany, I Al-Qadi & E Tutumler, Univ of Illinois, Urbana-Champaign, IL, USA
- GPR TRACKBED CONSTRUCTION CORRECTED FOR BALLAST TOPOGRAPHY, W Throssel, Fugro Aperio, Cambridge, UK
- LABORATORY STUDY OF RAILWAY BALLAST DEFORMATION BEHAVIOUR, X Shi & NH Thom, Univ of Nottingham, UK
- ASPECTS OF GPR TESTING OF A MIXED RAILWAY TRACKBED, R De Bold, J Morrissey, G O'Connor & MC Forde, Univ of Edinburgh, Scotland
- ASSESSMENT OF RAILWAY TRACK DYNAMIC PARAMETERS, Dr O Plášek, Dr J Smutný, R Svoboda & M Hruziková, TU-Brno, Czech Republic

Ballasted Trackbed (BT)

- IMPROVEMENT OF TRACKBED STIFFNESS CHARACTERISTICS BY CONTROLLED COMPACTION, P Strange, Bechtel & P Sharpe, PS Rail Ltd, Derby, UK
- EXPANSION OF INSTALLATION & ISSUES TO BE RESOLVED IN TC TYPE LOW MAINTENANCE TRACK, H Ishii, East Japan Railway Co, Saitama-shi, Japan
- ANALYSIS OF TRACK VERTICAL STIFFNESS IN POINTS, Dr V Salajka, Dr J Kala & Dr O Plasek, TU-Brno, Czech Republic.
- TREATED CAPPING LAYERS IN RAILWAY INFRASTRUCTURE, A Robinet, SNCF, La Plaine Saint Denis Cedex, France
- TRACK-BED STABILISATION BELOW "CHORLEY FLYING ARCHES", Dr EL Chin, IM Shelley, Scott Wilson Ground Engineering, Chesterfield, UK
- STIFFNESS MEASUREMENTS ON A MIXED RAILWAY TRACKBED, R De Bold, D Connolly, S Patience & MC Forde, Univ of Edinburgh, Scotland
- LATERAL RESISTANCE IN TRACK STRUCTURE DURING TAMPING, Prof W Koc, P Chrostowski, S Grulkowski, Dr A Wilk, TU-Gdansk, Poland
- EFFECTS OF FLY ASH ON RAILWAY SUBGRADES, Prof LS Bryson Univ of Kentucky, Lexington, KY & K Adu-Gyamfi, KCI Technologies, Inc, Hunt Valley, MD, USA
- PREDICTION OF PERMANENT DEFORMATION IN RAILWAY TRACK, X Shi & NH Thom, Univ of Nottingham, UK
- XITRACK REINFORCEMENT OF HIGH-SPEED RAILWAY TRACK OVER PEAT, PK Woodward, XITRACK, Birch Vale, J Kennedy, G Medero, Heriot-Watt Univ, Edinburgh, Scotland
- APPLICATIONS & TECHNOLOGY OF CHINESE TRACK IRREGULARITY MANAGEMENT, X Tian, G Li, W Wang, D Chen, Infrastructure Inspection Center Ministry of Railway P.R China
- COMPARISON OF 2 BRAZILIAN RAILWAY TRACKBEDS, CE Lima de Paiva, C de Franco Peixoto, LF de Melo Correia, Univ Estadual de Campinas, PR Aguiar, Erellys Assessoria e Consultoria Ltd, Brazil

Ballastless Trackbed (BLT)

- TRACK RENEWALS BENEFIT FROM EMBEDDED RAIL SYSTEM, AP de Man, edilon(sedra bv, Haarlem, The Netherlands
- SOLVING HIGH FREQUENCY VIBRATION ON HIGH SPEED SLAB TRACK, INCLUDING TILTING TRAINS, F Aoki, K Inari, Y Iwasa, East Japan Railway Co, Saitama-shi, Japan
- RAILWAY HOT-MIX ASPHALT TRACKBEDS - US DESIGN PRACTICE, Prof JG Rose, Univ of Kentucky, Lexington, KY, & HM Lees, Jr, BNSF Railway Co, Topeka, KS, USA
- RAILWAY HOT-MIX ASPHALT TRACKBEDS - US RAILWAY EXPERIENCES, Prof JG Rose, Univ of Kentucky, Lexington, KY & JS Anderson, HDR Engineering, Inc, Omaha, NE, USA
- STATE-OF-THE-ART REVIEW OF EMBEDDED RAIL SYSTEM TECHNOLOGIES, R. Insa. Univ Poli de Madrid, J. González. Técnico Metro de Madrid, J Real & L Baeza. Univ Poli de Valencia, Spain
- DISCRETIZATION METHOD FOR OPTIMAL CHOICE OF TYPES OF SLAB TRACK SYSTEMS, Dr D Plamenac, Adv Sch of Civ Eng & Geodesy, Belgrade, Dr Z Popovic & L Puzavac, Univ of Belgrade, Serbia

Geosynthetics in Trackbeds (GT)

- NEW GENERATION OF GEOGRID FOR BALLAST STABILISATION TO REDUCE TRACKBED MAINTENANCE COSTS, J Dixon, Tensar International Ltd, Blackburn, UK
- EARLY PERFORMANCE AUDITS OF GEOSAND IN OPERATIONAL ENVIRONMENT, JE Barker, Scott Wilson, Nottingham, P Sharley, WTB Geotechnics, Bristol, UK
- COMPOSITES AT BALLAST/SUBGRADE INTERFACE IN RAILWAY TRACK FOUNDATIONS, G S Ghataora & MP Burrow, Univ of Birmingham, UK
- LAB MEASUREMENTS OF BALLASTED TRACK MODELS REINFORCED BY GEOSYNTHETICS AT DIFFERENT LEVELS, L Hornicek, M Lidmila & P Tyc, Czech Tech Univ in Prague, Czech Republic
- FULL-SCALE CYCLIC GEOPAVEMENT & RAILWAY ACCELERATED FATIGUE TESTING, JH Kennedy, PK Woodward, G Medero, J McKinney, Heriot-Watt Univ, Edinburgh, Scotland

Earthworks Investigation & Monitoring (EI)

- REMOTE REAL TIME MONITORING OF A LANDSLIP AT STOCKSFIELD, D Peck, N Long & R Carswell, Arup, Newcastle upon Tyne & M Anderson, Strainstall, Midsomer Norton, UK
- MEASURING MOVEMENT OF RAILWAY EARTHWORKS & STRUCTURES, Prof W Harvey, Obvis, Exeter, UK
- MOISTURE MEASUREMENTS IN EMBANKMENTS: LONG TERM STABILITY & AGEING, Dr DA Gunn, M Kirkham, E Haslam, J Chambers, A Lacinska, & A Milodowski, BGS, Keyworth, G Ghataora, & M Burrow, Univ of Birmingham, & R Sellers & N Dixon, Loughborough Univ, UK
- MASW AS A PREDICTIVE TOOL FOR EARTHWORK STABILITY, Dr R Eddie, Fugro Aperio, Cambridge, UK
- 3-D MODELS TO DETECT ABANDONED MINESHAFTS, Dr F Drossaert, Dr A Giannopoulos & Prof MC Forde, Univ of Edinburgh, UK
- MONITORING OF TRANSITION ZONES IN RAILWAYS, B Coelho, TU Delft, The Netherlands, J Priest, W Powrie, Univ of Southampton, UK & P Holscher, Deltares, The Netherlands

Earthworks Management (EM)

- SLOPE SAFETY MANAGEMENT USING PROBABILITY OF FAILURE BY CHANGING GWL, H K Kim, M H Shin & J S Kwen, KRRI, Gyeonggi-do, Korea

Earthworks Design & Stabilisation (EDS)

- WELSH HIGHLAND RAILWAY, R Evans, Arup, Wrexham, UK
- DESIGN CONSIDERATIONS FOR NEW FREIGHT ROUTES ON OLD VICTORIAN EMBANKMENTS, Dr M Burrow, GS Ghataora, Univ of Birmingham & Dr DA Gunn, H Reeves, J Chambers, BGS, Keyworth, UK

Railway Foundations & Drainage (RFD)

- USE OF HELICAL PILE FOUNDATION SYSTEMS ON RAILWAY INFRASTRUCTURE UPGRADING SCHEMES, I Alobaidi, A Tham & P Liew, Atkins, Birmingham, UK
- GROUND INVESTIGATION FOR PILE DESIGN & CONSTRUCTION DURING POSSESSION WORKS, M Richardson, Systems Geotechnique Ltd, St Helens, UK
- DEV OF DEMCO TERRAPIT LIGHTWEIGHT DRAINAGE CATCHPIT FOR DIRECT TRACK LOADING, P Flude, MGS, Coventry & ARL Crossman, Montgomery Watson Hanza, UK
- TESTS ON LIGHTWEIGHT COMPOSITE MANHOLE CHAMBER TO BE USED ADJACENT TO RAILWAYS, GS Ghataora & Dr MPN Burrow, Univ of Birmingham, UK

Open Discussion Forum @ 4 pm:
Increasing Railway Capacity & Reducing Possessions

CONFERENCE DINNER (Optional)
Wednesday, 24th June • 7.30 pm for 8.00 pm
Venue: East India Club, London