



LIMAS 2017

SECOND INTERNATIONAL CONFERENCE ON LIGHTWEIGHT MATERIALS AND ENGINEERING STRUCTURES

13-14 NOVEMBER 2017

JURY'S INN, CROYDON, UK



CONFERENCE PROGRAMME DAY 1 13 NOVEMBER

08.30 - 08.55 DELEGATE REGISTRATION

08.55 - 09.00 WELCOME ADDRESS: PROF PURNENDU K DAS, ASRANET LTD

09.00 - 09.40 KEYNOTE PAPER: ADVANCES IN POLYMER NANOCOMPOSITES FOR STRUCTURAL APPLICATIONS
HASSAN MAHFUZ, FLORIDA ATLANTIC UNIVERSITY, USA

SESSION 1

09.40 - 10:00 CARDBOARD/CARBON FIBER SANDWICH PANELS REINFORCED WITH BRAIDED GLASS RODS FOR VEHICLE CRASH IMPACT ATTENUATION
HIROYUKI HAMADA, KYOTO INSTITUTE OF TECHNOLOGY, JAPAN

10:00 - 10:20 FLOW STRESS CHARACTERIZATION OF A MARTENSITIC STEEL UNDER WARM STAMPING CONDITIONS
YUHAO SUN, IMPERIAL UNIVERSITY, UK

10:20 - 10:40 INVITED PAPER: DESIGNING FIRE RESISTANT LIGHTWEIGHT COMPOSITES FOR MARINE APPLICATIONS
BAJINDER KANDOLA, UNIVERSITY OF BOLTON, UK

10:40 - 11:10

BREAK

11:10 - 11:30 INVITED PAPER: GRAPHENE COMPOSITES: APPLYING THE LESSONS OF FUNDAMENTAL STUDIES TO BULK COMPOSITES
IAN KINLOCH, UNIVERSITY OF MANCHESTER, UK

11:30 - 11:50 ISUPPORTING THE UK COMPOSITES INDUSTRY
STELLA JOB, COMPOSITES UK, UK

11:50 - 12:10 LIGHTWEIGHT ROTOR DESIGN OF MULTI-MEGAWATT WIND TURBINES
ALESSANDRO CROCE, POLITECNICO DI MILANO, ITALY

12:10 - 12:30 UNIQUE AUTOMOTIVE GRAPHENE-BASED NANOCOMPOSITES
AHMED ELMARAKBI, UNIVERSITY OF SUNDERLAND, UK

12:30 - 14:00

LUNCH

SESSION 2

14:00 - 14:40 KEYNOTE PAPER: TBC
ENRIQUE GARCIA NATIONAL COMPOSITES CENTRE, UK

14:40 - 15:00 MODAL CHARACTERISTICS OF FIBRE REINFORCED COMPOSITE BEAMS EXHIBITING INTERESTING FEATURES
RANJAN BANARJEE, CITY UNIVERSITY, LONDON, UK

15:00 - 15:30

BREAK

15:30 - 15:50 BEHAVIOR OF A STEEL ARCH BRIDGE WITH CFRP HANGER
JING GAO, XIAMEN UNIVERSITY, CHINA

15:50 - 16.10 HYDRAFORM – HYBRID DRAPING AND FORMING OF METAL AND COMPOSITE SHEET LAMINATES
STEPHAN UCSNIK, AUSTRIAN INSTITUTE OF TECHNOLOGY, AUSTRIA

16.10 - 16.30 CARBONATION OF STRUCTURAL LIGHTWEIGHT AGGREGATE CONCRETE – NEW BIPHASIC MODEL
JOSE BOGAS, UNIVERSITY OF LISBON, PORTUGAL

16.30 - 16.50 PRESCRIPTIVE AND PERFORMANCE-BASED APPROACH FOR SERVICE LIFE PREDICTION OF STRUCTURAL LIGHTWEIGHT CONCRETE UNDER CARBONATION-INDUCED CORROSION
JOSE BOGAS, UNIVERSITY OF LISBON, PORTUGAL

19.00 CONFERENCE DINNER

CROYDON PARK HOTEL, 7 ALTYRE RD, CROYDON, CR9 5AA

CONFERENCE PROGRAMME DAY 2

09:00 - 09:40 **KEYNOTE PAPER: PERIDYNAMICS: HISTORICAL AND FUTURE PERSPECTIVES**
ANGELO MALIGNO, UNIVERSITY OF DERBY, UK

SESSION 3

09:40 - 10:00 **A REVIEW ON LIGHT-WEIGHTING IN AEROSPACE COMPONENT AND SYSTEM DESIGN**
LEI ZHU, IMPERIAL COLLEGE LONDON, UK

10:00 - 10:40 **AN INNOVATIVE FORMING TECHNOLOGY FOR LIGHTER VEHICLE STRUCTURES**
LI NAN, IMPERIAL COLLEGE LONDON, UK

10:40 - 11:10 **BREAK**

11:10 - 11:30 **NATURAL VS SYNTHETIC FIBER-REINFORCED COMPOSITES – THE SUSTAINABLE LIGHTWEIGHT MATERIAL OF THE FUTURE GENERATION**
JERMOME KASPAR, SAARLAND UNIVERSITY, GERMANY

11:30 - 11:50 **THE ROLE OF STANDARDS FOR FUTURE ADOPTION OF COMPOSITES IN MARINE AND SHIPPING**
JONATHAN EVANS, STRUCTEAM, UK

11:50 - 12:10 **ANALYSIS OF STIFFENED AND UNSTIFFENED ALUMINIUM PLATED STRUCTURES – A RELIABILITY BASED APPROACH**
PURNENDU DAS, ASRANET, UK

12:10 - 12:30 **IMPROVEMENT OF WATER PENETRATION OF LWAC USING BACTERIA**
N HOSSEINI BALAM, IUT, IRAN

12:30 - 1400 **LUNCH**

SESSION 4

14:00 -14:20 **BIOBASED FACADE – ILLUMINATED NFP WITH CARDBOARD CORE**
RALF GLINIORZ, TECHNISCHE UNIVERSITÄT CHEMNITZ, GERMANY

14:20 -14:40 **CHIP BREAKING MECHANISM AND CHIP MORPHOLOGY IN LOW FREQUENCY VIBRATION ASSISTED DRILLING Ti6Al4V**
YAN CHECN, NANJING UNIVERSITY OF AERONAUTICS & ASTRONAUTICS, CHINA

14:40 -15:00 **ONLINE PARAMETER ESTIMATION FOR LARGE SCALE VACUUM INFUSION PROCESSES**
MICHAEL NAUHEIM, SIEMENS, DENMARK

15:00 -15:30 **BREAK**

15:30 - 15:50 **STRUCTURAL INTEGRITY OF LIGHTWEIGHT 3D PRINTED PARTS**
TUGRUL COMLEKCI, UNIVERSITY OF THE WEST OF SCOTLAND

15:50 - 16:10 **DEMONSTRATION OF ISOBEAM STRUCTURES**
DAVID JENSEN, BRIGHAM YOUNG UNIVERSITY, USA

16:10 **CONFERENCE CLOSES**

CONFERENCE VENUE



GUESTS VISITING LONDON FOR BUSINESS OR PLEASURE, THE JURY'S INN CROYDON HOTEL IS PERFECT FOR THOSE NOT WISHING TO BE IN THE HUSTLE AND BUSTLE OF BUSY LONDON, BUT STILL CLOSE BY. THE HOTEL PROPERTY OFFERS CHEAP HOTEL ROOMS AT A CENTRAL LOCATION WITH THE WHITGIFT SHOPPING CENTRE OVER THE ROAD AND EAST CROYDON STATION A SHORT 3-4 MINUTE WALK AWAY. FOR THOSE WANTING TO GO INTO CENTRAL LONDON FOR A LEISURE DAY, OR FOR BUSINESS, EAST CROYDON STATION IS A SHORT 17 MINUTE TRAIN RIDE TO LONDON VICTORIA OR LONDON BRIDGE. HOWEVER, THERE IS PLENTY TO DISCOVER IN CROYDON WITH VARIOUS HERITAGE SITES TO EXPLORE. THE QUEEN'S GARDENS ARE AN EASY 6 MINUTE WALK AND SHIRLEY PARK GOLF COURSE IS A 7 MINUTE DRIVE AWAY.



JURY'S INN HOTEL
WELLESLEY ROAD,
CROYDON,
LONDON
CR0 9XY

CONFERENCE DINNER VENUE



OSCARS BRASSERIE OFFERS A MOUTH-WATERING RANGE OF EUROPEAN AND INTERNATIONAL CUISINE PREPARED WITH FRESH AND LOCAL INGREDIENTS BY OUR COSMOPOLITAN LINE UP OF CHEFS. CROYDON PARK HOTEL IS A CENTRALLY LOCATED 4 STAR HOTEL AND JUST A 3 MINUTE WALK TO EAST CROYDON STATION WHERE DIRECT TRAINS WILL TRANSPORT YOU TO THE TWO MAIN STATIONS SERVICING BOTH CENTRAL LONDON AND THE CITY, IN UNDER 15 MINUTES; LONDON VICTORIA OR LONDON BRIDGE.

13TH NOVEMBER 2017, 19:00

CROYDON PARK HOTEL
7 ALTYRE RD
CROYDON
CR9 5AA