

10th International Conference on Marine Technology (MARTEC 2016)

9 – 10 December 2016

*Enhancing Shipbuilding and Blue Economy through Research, Innovation and Collaboration*Bangladesh University of Engineering & Technology (BUET)
Dhaka 1000, Bangladesh**Conference Program****Day 0**8th December 2016 (Thursday)**Registration**Venue: NAME Seminar Room, 5th Floor, ME Building, BUET

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| 15:00 – 20:00 | Registration |
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Day 19th December 2016 (Friday)**Pre-MARTEC Event**Venue: NAME Seminar Room, 5th Floor, ME Building, BUET

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| 09:30 – 11:30 | Registration |
| 10:30 – 11:00 | Inauguration of the Conference Exhibition in front of Auditorium |
| 11:00 – 12:30 | Pre-MARTEC lecture |
| 12:30 – 14:30 | Lunch and Prayer break |
| 14:30 – 16:00 | Registration |

9th December 2016 (Friday)**Inauguration Ceremony**

Venue: Council Building, BUET

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| 16:30 – 17:30 | Inauguration of the Conference |
| 17:30 – 18:00 | Tea and Prayer break |

9th December 2016 (Friday)**Keynote Paper Session**

Venue: Council Building, BUET

Session Chair: Prof. Dr. M. H. Khan, Co-chair: Prof. Dr. Zahurul Haq

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| 18:00 – 20:00 | Dr. Abdullahel Bari: Our Oceans and the Blue Economy: Opportunities and Challenges |
| | Mr. Trevor Blakeley: The Role of A Professional Society in Promoting The Success in The Maritime Industry |
| | Dr. Kazuhiko Hasegawa: Ship Manoeuvrability, Control and Safety |
| | Dr. Gökdeniz Neşer: Polymer Based Composites in Marine Use: History and Future Trends |
| 20:00 – 21:00 | Cultural Program |
| 21:00 – 22:30 | Conference Dinner |

9th December 2016 (Friday)**Conference Dinner 1**

Venue: BUET CAFETERIA

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| BUET Campus by walking at 21:00 | |
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Day 2

10th December 2016 (Saturday)

Technical Session – A.1: Marine Hydrodynamics, Resistance and Propulsion, Sea-keeping and Manoeuvring

Venue: Room A, 5th Floor of Mechanical Engineering Building, BUET

Session Chair: Professor Dr. Kazuhiko Hasegawa

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|----------------------|--------------------|--|--|
| 9:00-10:30 | 17 | Hafizul Islam, Md. Mashiur Rahaman, Hiromichi Akimoto, M. Rafiqul Islam | Calm Water Resistance Prediction of a Container Ship using Reynolds averaged Navier-Stokes based Solver |
| | 24 | Sivabalan P., Surendran S. | CFD Simulation of the Moonpool on the Total Resistance of a Drillship at Low Forward Speed |
| | 35 | Md. Mashud Karim, Md. Ariful Hoque, Aevelina Rahman | Simulation of Water Wave Generated by Shallowly Submerged Asymmetric Hydrofoil |
| | 52 | Ahnaf Rahman | Dynamic Analysis Of Floating Bridges With Transverse pontoons |
| | 57 | Nabila Naz, Md. Mashud Karim | Investigation of Hydrodynamic Characteristics of High Speed Multihull Vessels including Shallow Water Effect |
| | 72 | Tahsinul Haque Tasif, Md. Habibur Rahman, Arafat Bin Fazle, Md. Mashud Karim | Numerical Prediction Of Flow Past A Marine Rudder |
| | 150 | Saha G. K., Miazee M. A. | Numerical and Experimental Study of Resistance, Sinkage and Trim of a Container Ship |
| 10:30 – 11:00 | Refreshment | | |

10th December 2016 (Saturday)

Technical Session – A.2: Marine Hydrodynamics, Resistance and Propulsion, Sea-keeping and Manoeuvring

Venue: Room A, 5th Floor of Mechanical Engineering Building, BUET

Session Chair: Professor Dr. S. Surendran

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|----------------------|-------------------------------|---|---|
| 11:00 – 13:00 | 21 | Hafizul Islam, Md. Mashiur Rahaman, M. Rafiqul Islam, Hiromichi Akimoto, Laboni Afroz | Comparative Study of Added Resistance of A Very Large Crude Carrier Using Reynold's Averaged Navier-Stokes And Potential Flow Based Solver. |
| | 54 | Md. Imran Uddin, Md. Mashud Karim | Application of Volume of Fluid (VOF) Method for Prediction of Wave Generated by Flow around Cambered Hydrofoil |
| | 62 | Md. Sadiqul Baree, Laboni Afroz, Shadman Sakib | An Experiment With A Ship Model For Prediction Of Added Resistance In Waves |
| | 64 | Md. Mashud Karim, Nabila Naz | Computation of Flow Field around Ship Hulls including Self Propulsion Characteristics of Propeller at Varying Rudder Positions |
| | 102 | Rahimuddin, Adi Maimun, Fithriadhy Ahmad | Fin Stabilizer Effect in Prevention of Bow-Diving Occurrence of Semi-SWATH Ship |
| | 103 | Yanuar Yanuar, Kurniawan T. Waskito | Experimental Study of Total Hull Resistance of Pentamaran Ship Model With Varying Configuration of Outer Side Hulls |
| | 114 | G.A.P. Poundra, I.K.A.P Utama, D. Hardianto, B. Suwasono | Optimizing Trimaran Yacht Hull Configuration Based on Resistance and Seakeeping Criteria |
| | 71 | Arnob Banik, Md. Refayet Ullah | Marine Propeller Characteristics Determination by Induction Factor Method Based on Normal Induced Velocity |
| | 118 | Mehdi Nakisa, Fatemeh Behrouzi, Adi Maimun, Rahimuddin Samad, Yasser M. Ahmed | Numerical Study on Propeller Performance for a Vessel in Restricted Water |
| 13:00 – 14:00 | Lunch and Prayer Break | | |

10th December 2016 (Saturday)

Technical Session – A.3: Marine Hydrodynamics, Resistance and Propulsion, Sea-keeping and Manoeuvring

Venue: Room A, 5th Floor of Mechanical Engineering Building, BUET

Session Chair: Professor Dr. Adi Maimun bin Abdul Malik

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|---------------------|--|---|---|
| 14:00 – 16:00 | 119 | Tahsinul Haque Tasif , Md. Mashud Karim | Effect of Fish Wedge on the Hydrodynamic Characteristics of a Marine Rudder |
| | 127 | Alimuddin M , Islam M R | Prediction of Motion of a Semi-submersible |
| | 146 | Dr. Goutam Kumar Saha, Mohammad Sayem Bin Abdullah, Mohammad Ashrafuzzaman | Wave Wash and Its Effects in Ship Design and Ship Operation: A Hydrodynamic Approach to Determine Maximum Permissible Speed in a Particular Shallow and Narrow Waterway |
| | 157 | Rubel Chandra Das, Mahmud Riyad, Mohammad Mashud | Aerodynamic CFD Analysis of Passenger Vehicle Varying Inclination Angle of Rear End Spoiler |
| | 168 | M. Azlan Musa, A.Yazid Maliki, M. Fadhli Ahmad, W.NikSani, Omar Yaakob and K.B.Samo | Numerical Simulation of Wave Flow Over the Overtopping Breakwater for Energy Conversion (OBREC) Device |
| | 208 | Ataur Rahman, Md Refayet Ullah, Md. Mashud Karim | Marine Propeller Design Method Based on Lifting Line Theory and Lifting Surface Correction Factors |
| | 66 | Mahmudur Rahman Soeb, A.B.M. Saiful Islam, Mohd Zamin Bin Jumaat & M. Rafiqul Islam | Dynamic Response of a Floating Coupled Spar Platform in Deep Water |
| | 236 | Md. Sadiqul Baree, Laboni Afroz | Sea-keeping Performance of Series60 Ships |
| | 116 | H.M.A. Akbar, A. Sahir, A. Munazid and B. Suwasono | Outrigger RC Boat Hull Model Development as A High Speed Craft Based On Resistance and Lift Force |
| 87 | Md. Sadiul Alam Chyon, Afeefa Rahman, Md. Ataur Rahman | Comparative Study On Hydrodynamic Performance Of Porous And Non-Porous Submerged Breakwater | |
| 16:00– 16:30 | Refreshment and Prayer Break | | |

10th December 2016 (Saturday)

Technical Session – B.1: Ship Design, Ship Building and Ship Recycling

Venue: Room B, 5th Floor of Mechanical Building, BUET

Session Chair: Dr. Gökdeniz NEŞER, Co-Chair: Commodore Ziauddin Alamgir

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|----------------------|--------------------|--|---|
| 9:00- 10:30 | 20 | Md. Mashiur Rahaman, Molla Hafizur Rahman, Mohammad Abul Hashem, M. Rafiqul Islam | Design Study of Boat for Gulshan-Banani-Hatirjheel Lake in the Capital City of Bangladesh |
| | 22 | Khandaker Rasel Hasan, Md. Mashiur Rahaman , M. Ziauddin Alamgir , Hiromichi Akimoto | Foreign Direct Investment and the Shipbuilding Industry: A Bangladesh Perspective |
| | 25 | M MuziburRahman | An Appraisal of Shipbuilding Prospects in Bangladesh |
| | 56 | Suresh Sharma, Pankaj J. Gandhi | Scope and impact of implementing Lean Principles & Practices in Shipbuilding |
| | 234 | Khandakar Akhter Hossain, N. M. Golam Zakaria, M. A. Rashid Sarkar | SWOT Analysis of China Shipbuilding Industry by Third Eyes |
| | 235 | Khandakar Akhter Hossain, N. M. Golam Zakaria | A Study on Global Shipbuilding Growth, Trend and Future Forecast |
| | 83 | Hasan Ruhan Rabbi, Aevelina Rahman | Ship Breaking and Recycling Industry of Bangladesh; Issues and Challenges |
| | 53 | Ahmad Nasirudin, Ru-Min Chao, I Ketut Aria PriaUtama | Solar Powered Boat Design Optimization |
| | 115 | Sohanur Rahman | Aspects and Impacts of Ship Recycling in Bangladesh |
| 10:30 – 11:00 | Refreshment | | |

| 10 th December 2016 (Saturday) | | | |
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| Technical Session – B.2: Marine Accidents, Safety, Maritime Regulations | | | |
| Venue: Room B, 5 th Floor of Mechanical Building, BUET | | | |
| Session Chair: Dr. Abdullahel Bari | | | |
| 11:00-13:00 | 11 | Asif Raiyan, Subir Das, M. Rafiqul Islam | Event Tree Analysis of Marine Accidents in Bangladesh |
| | 33 | Sohanur Rahman | An Analysis of Passenger Vessel Accidents in Bangladesh |
| | 43 | Md. Imran Uddin , M. Rafiqul Islam , Zobair Ibn Awal, Kazi Md. Shifun Newaz | A Study of Inland Water Transport Accidents of Bangladesh: Lessons from a Decade |
| | 139 | Zobair Ibn Awal and Kazuhiko Hasegawa | A Study On Accident Theories And Application To Maritime Accidents |
| | 167 | Sunaryo, Mochamad Aditya Hamka | Safety Risks Assessment on Container Terminal Using Hazard Identification and Risk Assessment and Fault Tree Analysis Methods |
| | 225 | Md. Alamgir Hussain, Anas Ahmed, Saeed Rubiee and A.K.M. Masud | Evaluation of Safety Interventions in an Oil and Gas Company |
| | 34 | Sohanur Rahman | Implementation of Ballast Water Management Plan in Ships Through Ballast Water Exchange System |
| | 174 | N.M. Golam Zakaria, Kaosar Rashid | Environmental Pollution In Bangladesh By Inland Tanker Operation |
| | 163 | Md. Haider Ali Biswas, Md Rajib Hossain, Mithun Kumar Mondal | Mathematical Modeling Applied to Sustainable Management of Marine Resources |
| 13:00 –14:00 | Lunch and Prayer Break | | |

| 10 th December 2016 (Saturday) | | | |
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| Technical Session B.3: Maritime Education, Energy, Dredging and Experimental Measurement | | | |
| Venue: Room B, 5 th Floor of Mechanical Building, BUET | | | |
| Session Chair: Rear Admiral M A Baten | | | |
| 14:00-16:00 | 165 | Sujit Kumar Basak | A Framework on the Factors Affecting to Implement Maritime Education and Training System in Educational Institutions: A Review of the Literature |
| | 177 | Robert Kiplimo and Bernard WamutiIkuu | Maritime Education Training in East Africa Region : Current Status |
| | 227 | Mohammad Rubaiyat Rahman | Blue Economy and Maritime Cooperation in the Bay of Bengal: Role of Bangladesh |
| | 124 | N.M. Golam Zakaria, Sohanur Rahman | Energy Efficiency Design Index (EEDI) for Inland Vessels in Bangladesh |
| | 125 | Md. Mashud Karim, S.M. Rashidul Hasan | Establishment of EEDI Baseline for Inland Ship of Bangladesh |
| | 152 | Nafis Fuad, Mohammad Kifayath Chowdhury, Mohammad Salman Yasin, Md. Mashud Karim | Development of a Novel Device for Harnessing Wasted Energy Behind a Marine Propeller |
| | 176 | Shadman Sakib | Implementation of Digital IMU to Compensate the Rotational Motion of the Survey Vessel for a More Accurate Hydrographic Survey |
| | 70 | Jaher Wasim, AKM Hasan Julker Nine | Challenges in Developing a Sustainable Dredging Strategy |
| | 207 | Shadman Sakib, Md. Mashud Karim | Design and Development of a Cheap Slosh Testing Rig as Laboratory Equipment |
| 16:00 – 16:30 | Refreshment and prayer Break | | |

| 10 th December 2016 (Saturday) | | | |
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| Technical Session – C.1: Heat Transfer | | | |
| Venue: Room C, 5 th Floor of Mechanical Engineering Building, BUET | | | |
| Session Chair: Prof. Dr. M. H. Khan, Co-Chair: Prof. Dr. Md. Abdul Alim | | | |
| 9:00-10:30 | 13 | Mohammad Ali, Md. Abdul Alim, Rehana Nasrin, Mohammad Shah Alam, M Jahirul Haque Munshi | Similarity Solution of Unsteady MHD Boundary Layer Flow and Heat Transfer past a Moving Wedge in a Nano fluid using the Buongiorno Model |
| | 14 | Mohammad Shah Alam, Mohammad Ali, Md. Abdul Alim, M Jahirul Haque Munshi, Md Zia Uddin Chowdhury | Solution of Falkner-Skan Unsteady MHD Boundary Layer Flow and Heat Transfer past a Moving Porous Wedge in a Nano fluid |
| | 30 | Afroza Akter and Salma Parvin | Effect of Magnetic Field on MHD Natural Convection Flow in a Prism Shaped Cavity Filled with Nano Fluid |
| | 82 | M. Mainul Hossain, M. A. H. Khan | Stability of MHD Wall Driven Flow Through a Tube |
| | 88 | A. H. Bhuiyan, Md. Shahidul Alam, M. A. Alim | Natural Convection of Water-Based Nano fluids in a Square Cavity with Partially Heated of the Bottom Wall |
| | 90 | M. Jahirul Haque Munshi, M. A. Alim, A. H. Bhuiyan, M. Ali | Hydrodynamic Mixed Convection in a Lid- Driven Square Cavity Including Elliptic Shape Heated Block With Corner Heater |
| 10:30 – 11:00 | | Refreshment | |

| 10 th December 2016 (Saturday) | | | |
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| Technical Session – C.2: Heat Transfer | | | |
| Venue: Room C, 5 th Floor of Mechanical Engineering Building, BUET | | | |
| Session Chair: Prof. Dr. Mustafa Kamal Chowdhury, Co-Chair: Prof. Dr. Md. Abdul Hakim | | | |
| 11:00-13:00 | 104 | Y.Raja Obula Reddy , M. Suryanarayana Reddy, P. Sudarsana Reddy | Effect of Brownian Motion and Thermophoresis on Heat and Mass Transfer Flow over a Horizontal Circular Cylinder filled with Nanofluid |
| | 105 | P.Sreedevi , K.V. Suryanarayana Rao, Ali. J. Chamkha | Heat And Mass Transfer Flow Over a Vertical Cone Through Nanofluid Saturated Porous Medium Under Convective Boundary Condition With Suction/Injection |
| | 121 | Tushar Mollik , Bishwajit Roy, Sumon Saha | Turbulence Modeling Of Channel Flow and Heat Transfer: A Comparison With DNS Data |
| | 128 | Tajul Islam and Nazma Parveen | Natural Convection Flow Along a Vertical Wavy Surface With The Effect of Viscous Dissipation and Magnetic Field In Presence of Joule Heating |
| | 129 | B.Prabhavathi, P. Sudarsana Reddy, Ali. J. Chamkha | MHD Boundary Layer Heat and Mass Transfer Flow over A Vertical Cone Embedded In Porous Media Filled With Al ₂ O ₃ -Water and Cu-Water Nanofluid |
| | 135 | Md. Shahidul Alam, M. A. Alim, Md. S.H. Molla | Mixed Magneto Convection in a Lid Driven Square Enclosure with a Sinusoidal Vertical Wall and Joule Heating |
| | 160 | Raju Chowdhury, Salma Parvin, Md. Abdul Hakim Khan | Numerical Study of Double-diffusive Natural Convection in a Window Shaped Cavity Containing Multiple Obstacles Filled with Nanofluid |
| | 133 | M. M. Ali, M. A. Alim, Syed Sabbir Ahmed | Magneto hydrodynamic Mixed Convection Flow in a Hexagonal Enclosure |
| | 156 | Md Khalilur Rahman, Md Sarwar Alam, Md Abdul Hakim Khan | Stability of MHD Nanofluid Flow Through Expanding or Contracting Channel With Permeable Walls |
| 13:00 –14:00 | | Lunch and Prayer Break | |

10th December 2016 (Saturday)

Technical Session – C.3: Marine Structure, Materials, Supply Chain, Shipping Industry and Offshore Installation

Venue: Room C, 5th Floor of Mechanical Engineering Building, BUET

Session Chair: Prof. Dr. Md. Afsar Ali

| | | | |
|----------------------|-----|---|---|
| 14:00-16:00 | 27 | Anoop Shirkol, T. Nasar | Hydroelastic Analysis of Floating Platform Under Different Support Conditions Using BEM Approach |
| | 68 | Mohammad Saidee Hasan | A Simplified Method for Analyzing the Fatigue life of a FPSO Mooring System |
| | 85 | Md. Shumon Mia, Md. Shahidul Islam, Udayan Ghosh | Modal Analysis of Cracked Cantilever Beam By Finite Element Simulation |
| | 132 | Md. Shahidul Islam, Md.Humayun Kabir and Sharat Chandra Paul | Simulation Based Structural Analysis of an Oil Tanker Bulkhead |
| | 169 | Syed Khaja Abbas Ahmed, Deepak Kumar | Response and Control of Jacket platform under Combined Earth-Quake and Wave Loadings |
| | 206 | T Srikanth, S Surendran, G Balaganesan, G L Manjunath | Response of CMT Welded Aluminum AA5086-H111 To AA6061-T6 Plate With AA4043 Filler For Ballistic Loads |
| | 226 | Md. Sumon Hossain, Mohammed Forhad Uddin, Manik Mondal | The Effects of Coordination Mechanism on Vendor Buyer System of A Supply Chain |
| | 76 | Ibna Zaman , Kayvan Pazouki, Rose Norman, Shervin Younessi, Shirley Coleman | Challenges and Opportunities of Big Data Analytics for Upcoming Regulations and Future Transformation of the Shipping Industry |
| | 134 | Angjuang Adi Panji P, Hardika Raditya A, Triyan Indrawan | Short-Circuit Current Calculation Application for A.C 3 Phase on Marine and Mobile Offshore Installations Based on IEC-61363 Standard |
| 16:00 – 16:30 | | Refreshment and Prayer Break | |

International Student Conference on Marine Technology (ISCMART 2016)

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| 8 December 2016 15:00 – 20:00 | Registration |
| 9 th December 2016 (Friday) 9:30 – 22:30 | Same as MARTEC 2016 Program |
| 10 th December 2016 (Saturday) 9:00-16:30 | Technical Session E.1, E.2, E.3 Venue: Room E, 5 th Floor of Mechanical Building, BUET (Including Refreshment, Lunch, Prayer Break etc.) |

10th December 2016 (Saturday)

Closing Ceremony

Venue: Council Building, BUET

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|----------------------|-------------------------------------|
| 16:30 – 17:30 | Closing Ceremony |
| 17:30 – 18:00 | Refreshment and Prayer Break |

10th December 2016 (Saturday)

Conference Dinner 2

Venue: Baton Rouge

Gulshan by Bus at 18:00