



# **International Conference on Petroleum Engineering (ICPE 2016)**

Bangladesh University of Engineering and Technology  
Dhaka-1200, Bangladesh

## **Program at a Glance**

### Inaugural Ceremony

*Venue: Council Bhaban, BUET*

- 8:00 am Registration and Breakfast
- 9:00 am Guests Take Their Seats
- 9:05 am Recitation From Holy Quran
- 9:10 am Opening Remarks by **Professor Dr. M. Tamim**, Chairman, ICPE 2016
- 9:15 am Speech by **Dr. M. Enamul Hossain**, Chairman, Technical Committee of ICPE 2016
- 9:20 am Speech by Special Guest **Professor Dr. Maglub Al Nur**, Dean, Faculty of Mechanical Engineering, BUET
- 9:25 am Speech by Chief Guest **Professor Dr. Saiful Islam**, Honorable Vice Chancellor, BUET

09:30 am

**Keynote Lectures:**  
Venue: Council Bhaban, BUET

- 9:30 am Keynote Lecture 1: *Process Safety Challenges for a Sustainable Energy Policy in the 21<sup>st</sup> Century*, by Professor Dr. M. Sam Mannan, Dept. of Chemical Engineering, Texas A & M University, USA
- 9:50 am Keynote Lecture 2: *Heat Transfer Principles Applied to Oil and Gas Production*, by Professor Dr. A. Rashid Hasan, Dept. of Petroleum Engineering, Texas A & M University, USA
- 10:10 am Keynote Lecture 3: *Challenges Towards True Reservoir Emulator* by Dr. M. Enamul Hossain, Statoil Chair in Reservoir Engineering, Memorial University of Newfoundland, Canada

**10:30 am -10:50 am: Tea Break**  
**Venue: ARI-ITN Building (5<sup>th</sup> Floor)**

**Technical Session 1:Drilling and Geology**

**Chair: Dr. Syed Imtiaz, Associate Professor, Memorial University of Newfoundland, Canada**

*Venue: ARI-ITN Building (1<sup>st</sup> Floor)*

*Room: A(ARI Class Room)*

- 11:00 am **Article No:** ICPE 2016-022  
**Title:** Wellbore Instability Issues While Drilling Wells in Bangladesh: A Case Study  
**Authors:** Mr. Shahriar Mahmud, Evana Tinny and Howleder Ohidul Islam
- 11:10 am **Article No:** ICPE 2016-021  
**Title:** A Review on Smart Well Completion System: Route to the Smartest Recovery  
**Authors:** Md. Nahin Mahmood, Md. Zayed Bin Sultan and Navid Yousuf
- 11:20 am **Article No:** ICPE 2016-036  
**Title:** Drilling Challenges: A Case Study of Rashidpur Field  
**Authors:** Hasan Mahmud, Shahriar Mahmud and Evana Tinny
- 11:30 am **Article No:** ICPE 2016-053  
**Title:** Design, Development, and Validation of an Experimental Managed Pressure Drilling Setup  
**Authors:** Al Amin, Dan Chen, Syed Imtiaz, Aziz Rahman and Faisal Khan
- 11:40 am **Article No:** ICPE 2016-034  
**Title:** Estimation of Downhole Cuttings Concentration: A Comparative Study of Two Semi-empirical Models Using Experimental Data  
**Authors:** Dipankar Chowdhury and Pål Skalle

**11:50 am-12:00 pm: Tea Break**  
**Venue: ARI-ITN Building (5<sup>th</sup> Floor)**

**Technical Session 2:Drilling and Geology**

**Chair: Mr. Zaved Choudhury, General Manager (Mine Operation Division),  
PETROBANGLA**

*Venue: ARI-ITN Building (1<sup>st</sup> Floor)*

*Room: A(ARI Class Room)*

- 12:00 pm **Article No:** ICPE 2016-025  
**Title:** New Approach to Monitor the Wellbore Condition Using Hydraulic Lift Phenomenon During Casing While Drilling  
**Authors:** Saiful Islam, Shahriar Mahmud, Mohammad Mojammel Huque, Mubarak Hossen

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- 12:10 pm     **Article No:** ICPE 2016-044  
**Title:** A Review of Mud Loss While Drilling Through Naturally Fractured Reservoirs  
**Authors:** Faysal Ahammad and Shahriar Mahmud
- 12:20 pm     **Article No:** ICPE 2016-028  
**Title:** Sensitivity Analysis of a CFD model for Simulating Slurry Flow Through Pipeline  
**Authors:** Rasel A Sultan, Mohamed Aziz Rahman, Sohrab Zendehboudi, Vandad Talimi and Vassilios C. Kelessidis
- 12:30 pm     **Article No:** ICPE 2016-030  
**Title:** Seismic Attribute Analysis and Evaluation of Prospective Hydrocarbon Bearing Zones by Seismic Inversion in the Surma Basin, Bangladesh  
**Authors:** Md Shofiqul Islam, Shefa Ul Karim, Mohammad Moinul Hossain and Iqbal Hossain
- 12:40 pm     **Article No:** ICPE 2016-056  
**Title:** Reservoir Rock Properties Analysis Using Core Data of Begumganj Gas field  
**Authors:** B.M. Khasbur Rahman and Mohammad Islam Miah
- 12:50 pm     **Article No:** ICPE 2016-052  
**Title:** Distribution of Heavy Metals in the Surface Water and Bed Sediments of Sundarbans Region.  
**Authors:** M. Z. H. Khan, M. R. Hasan, F. K. Tarek, S. Paul and M. A. Bhuiyan

**Technical Session 3: Reservoir Engineering**

**Chair: Dr. M. Enamul Hossain, Statoil Chair in Reservoir Engineering, Memorial University of Newfoundland, Canada**

*Venue: ARI-ITN Building (1<sup>st</sup> Floor)*

*Room: B(ARI Seminar Room)*

- 11:00 am     **Article No:** ICPE 2016-029  
**Title:** Pressure Data Analysis Using Derivative Type Curve for Multilayered Gas Reservoir  
**Authors:** Fatema Akter Happy, Arifur Rahman, Farhana Akter and M. Enamul Hossain
- 11:10 am     **Article No:** ICPE 2016-010  
**Title:** Analysis of DST To Detect the Oil Sand: A Real Case Study on Kailashtilla Field  
**Authors:** Mohammad Amirul Islam, A.S Daiyan Ahmed, A.S.M. Woobaidullah and Badrul Imam

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- 11:20 am **Article No:** ICPE 2016-035  
**Title:** PVT Properties of Heavy Oil – A Critical Review  
**Authors:** Md. Shad Rahman, Mohammad Islam Miah, Salim Ahmed, Mohammed Mahbubur Rahman and M. Enamul Hossain
- 11:30 am **Article No:** ICPE 2016-026  
**Title:** Evaluation of Well Performance of Titas Gas Field by Decline Curve Analysis Using Type Curves  
**Authors:** Rasel Ahmed and Md. Akib Hasan Ahmed
- 11:40 am **Article No:** ICPE 2016-047  
**Title:** Revisiting Reservoir Fluid Properties With Memory  
**Authors:** Md. Shad Rahman, Mohammad Islam Miah, Farhana Akter and M. Enamul Hossain

**11:50 am -12:00 pm: Tea Break**  
**Venue: ARI-ITN Building (5<sup>th</sup> Floor)**

**Technical Session 4: Reservoir Engineering**  
**Chair: Dr. Md Mahbubur Rahman, Associate Professor, Dept. of PMRE, BUET**  
*Venue: ARI-ITN Building (1<sup>st</sup> Floor)*  
*Room: B(ARI Seminar Room)*

- 12:00 pm **Article No:** ICPE 2016-005  
**Title:** Well Flow Interference Study of Sylhet Gas Field by Streamline Simulation  
**Authors:** Md. Mohimanul Islam, A. S. M. Woobaidullah, and Mohammad Amirul Islam
- 12:10 pm **Article No:** ICPE 2016-031  
**Title:** Quantification of Reserve and Skin Index of Well-02 of Habiganj Gas Field, Bangladesh Using Typecurve Analysis  
**Authors:** Mir Raisul Islam, A T M Shahidul Huque Muzemder and A B M Hedayatul Islam
- 12:20 pm **Article No:** ICPE 2016-015  
**Title:** Reserve Estimation of a Gas Field in Bengal Basin Using “Modified Material Balance” Method  
**Authors:** Navid Yousuf, Md. Nahin Mahmood, Muhammad Towhidul Islam and Tareq-Uz-Zaman
- 12:30pm **Article No:** ICPE 2016-039  
**Title:** Quantifying Expected Recovery and Production Forecasting of Kailashtila Gas Field (Well-5) Using Rate Transient Analysis  
**Authors:** Md Mahbub Alam Hira, Arifur Rahman and Mubarak Hossen

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12:40 pm     **Article No:** ICPE 2016-054  
                  **Title:** Comparison of Reservoir Parameters from Pressure Transient and Production Data Analysis: A Case Study  
                  **Authors:** Chun Tat Teo and Mohammed Mahbubur Rahman

**Technical Session 5: Flow Assurance, Energy and Management**  
**Chair: Dr. Aziz Rahman, Assistant Professor, Texas A & M University, Qatar**  
*Venue: ARI-ITN Building (5<sup>th</sup> floor)*  
*Room: C (ITN Seminar Room)*

11:00 am     **Article No:** ICPE 2016-002  
                  **Title:** Material Planning and Control - A Case Study of TGTDCCL  
                  **Authors:** Md. Shamsuzzoha

11:10 am     **Article No:** ICPE 2016-032  
                  **Title:** Modeling Liquid Loading of Gas Wells and Its Remediation  
                  **Authors:** M. Aldousari, G. M. Hashmi, N. Tamim, Farhana Akter, and A. R. Hasan

11:20 am     **Article No:** ICPE 2016-012  
                  **Title:** A Study on Friction Loss and Holdup Ratio in the Water Lubricated Pipeline Transportation of Heavy Oil  
                  **Authors:** S. Rushd and A. Rahman

11:30 am     **Article No:** ICPE 2016-013  
                  **Title:** Prediction of Choke Size for Single Gas Flow Using Artificial Intelligence Techniques  
                  **Authors:** Murtada Elhaj, Fatai Anifowose, Abdulraheem, Abdulazeez and M. Hossain Enamul

11:40 am     **Article No:** ICPE 2016-020  
                  **Title:** Experimental Investigation of Multiphase Pressure and Temperature Loss Using High Pressure Flow Loop  
                  **Authors:** Mohamed Abdalla Odan, Faraj Ben Rajeb, Syed Hasnain Haider Zaidi, Amer Aborig, Yan Zhang, Imtiaz Syed and Aziz Rahman

**11:50 am -12:00 pm: Tea Break**  
**Venue: ARI-ITN Building (5<sup>th</sup> Floor)**

**Technical Session 6: Flow Assurance, Energy and Management**

**Chair: Professor Dr. Md. Alamgir Hossain, Dept. of Mechanical Engineering, MIST**

*Venue: ARI-ITN Building (5<sup>th</sup> floor)*

*Room: C (ITN Seminar Room)*

- 12:00 pm     **Article No:** ICPE 2016-004  
**Title:** Development of a Gas Production Database for Gas Fields in Bangladesh  
**Authors:** Md. Ruhul Amin Foisal, Mohammad Mojammel Huque, Mahbuba Yeasmin and Md. Jahangir Kabir
- 12:10 pm     **Article No:** ICPE 2016-033  
**Title:** Re-completion of KTL-5 Well: An Investigation of Excessive Water Production  
**Authors:** Hasan Mahmud, Mohammad Mojammel Huque, Mohammed Mahbubur Rahman and Howleder Ohidul Islam
- 12:20 pm     **Article No:** ICPE 2016-027  
**Title:** Compressed Biogas from Maize Waste  
**Authors:** Sadia Saberin, Rupack Ranjan Halder, Ijaz Hossain, Md. Abdur Rouf, Taposhi Rabeya, Ajay Kanti Mondal and Shahed Israil Kan
- 12:30 pm     **Article No:** ICPE 2016-049  
**Title:** Analyzing Physico-Chemical Properties of Bioethanol and Bioethanol Blended Fuels  
**Authors:** Samavi Farnush Bint-E-Naser, Laila Hossain, Mrittika Debnath, Prama Prodipti Barua and Mohidus Samad Khan
- 12:40 pm     **Article No:** ICPE 2016-051  
**Title:** Studying Growth Kinetics of Chlorella Vulgaris, a Microalgae with High Lipid Content, to Produce Biodiesel in Local Condition  
**Authors:** Anika Ferdous, Farid Ahmad, Md. Shajid Khan, John Liton Munshi, Chapol Kumar Roy, Husna Parvin Nur and Mohidus Samad Khan

**1.00 pm - 2.00 pm : Lunch Break**  
**Venue: ARI-ITN Building (5<sup>th</sup> Floor)**

**Technical Session 7: Process Engineering**

**Chair: Professor Dr. Syeda Sultana Razia, Department of Chemical Engineering, BUET**

*Venue: ARI-ITN Building (1<sup>st</sup> Floor)*

*Room: A(ARI Class Room)*

- 2:00 pm      **Article No:** ICPE 2016-003  
**Title:** Assessment of Embodied Energy and GHG Emission During the Brick Manufacture of Bangladesh  
**Authors:** Md. Shazib Uddin, Amit Roy, Soumya Mondal and Md.Fajle Rabbi
- 2:10 pm      **Article No:** ICPE 2016-011  
**Title:** A Feasibility Study on Solvent Extraction as Sustainable Alternative of Acid Treatment for Re-Refining of Used Lubricating Oil in Bangladesh  
**Authors:** Harun Ur Rashid, Md. Mostafijul Karim and Syed Muhammad Jahangir Alam
- 2:20 pm      **Article No:** ICPE 2016-014  
**Title:** Removal of Phenolic Compounds by Using Adsorption from Industrial Effluents  
**Authors:** Mohamed Abdalla Odan
- 2:30 pm      **Article No:** ICPE 2016-024  
**Title:** Impact of Oil Spillage on Agricultural Production  
**Authors:** Md. Omar Sahed Chowdhury, Ashef Ainan Baksh and Tareq-Uz-Zaman
- 2:40 pm      **Article No:** ICPE 2016-057  
**Title:** Review on Thermodynamic Applications for Natural Gas Liquid (NGL) Extraction from Natural Gas in Cryogenic Gas Processing  
**Authors:** Abul Hossain, Md. Abdul Jalil Pramanik and Md. Haronur Rashid Mullah

**Technical Session 8: Pipeline Engineering**

**Chair: Mr. Zaved Choudhury, General Manager (Mine Operation Division), PETROBANGLA**

*Venue: ARI-ITN Building (1<sup>st</sup> Floor)*

*Room: B(ARI Seminar Room)*

- 02:00 pm      **Article No:** ICPE 2016-016  
**Title:** Evaluating the Technical Challenges of River Crossing for the Bakhrabad-Siddhirganj Gas Transmission Pipeline Project, GTCL  
**Authors:** Md. Asraful Alam, Mohammad Mojammel Huque and Mohammed Mahbubur Rahman



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- 02:10 pm     **Article No:** ICPE 2016-019  
                  **Title:** Rules and Regulation of Transmission and Distribution of Natural Gas and Its Application in Bangladesh  
                  **Authors:** Md Mehedi Hasan, Abdullah Al Mahmud and M Farhad Howladar
- 02:20 pm     **Article No:** ICPE 2016-023  
                  **Title:** Working Challenge in Petroleum Industry due to Heat Stress and Pipeline Leakage; Bangladesh  
                  **Authors:** Md. Nasir Uddin, Syed Istiyak Ahmed and Md. Shaheen Shah
- 02:30 pm     **Article No:** ICPE 2016-038  
                  **Title:** Bibiyana- Dhanua 137km x 36’’ Gas Transmission Line: A simulation Study and Economic Analysis  
                  **Authors:** Farhana Akter, Mohammad Mojammel Huque and Lutfur Rahman

**Technical Session 9: Gas Technologies**

**Chair: Professor Dr. Md. Ali Ahammad Shoukat Choudhury, Department of Chemical Engineering, BUET**

*Venue: ARI-ITN Building (5<sup>th</sup> floor)*

*Room: C (ITN Seminar Room)*

- 2:00 pm     **Article No:** ICPE 2016-017  
                  **Title:** Future Prospect Analysis of Liquefied Petroleum Gas (LPG) and Liquefied Natural Gas (LNG) in Bangladesh: Economic and Technological Case Studies  
                  **Authors:** Md. Shaheen Shah, Md. Shimul Hossain, Farzana Yeasmin Nipa, Simanto Kumar Pal, Md. Rashidul Islam and S.M. Samiur Sany
- 2:10 pm     **Article No:** ICPE 2016-018  
                  **Title:** Natural Gas Dehydration Process in Bangladesh  
                  **Authors:** Md Mehedi Hasan, M Farhad Howladar, Abdullah Al Mahmud and Md Bayezid Hussain
- 2:20 pm     **Article No:** ICPE 2016-040  
                  **Title:** A Research of Material Balance Equation Applied to Natural Gas Liquefaction Process Considering Three Stage Cooling Section  
                  **Authors:** Mohammad Shahedul Hossain and Jumman Al Jawad
- 2:30 pm     **Article No:** ICPE 2016-042  
                  **Title:** Comparative Study of Modern Natural Gas Liquefaction Technology for Optimization of LNG Plant Efficiency  
                  **Authors:** Mohammad Shahedul Hossain and Jumman Al Jawad

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2:40 pm      **Article No:** ICPE 2016-055  
**Title:** Mathematical Analysis of Effects on the Electrostatic Double Layer of Nanoscale Surfaces in Microfluidic Channels  
**Authors:** D. E. Aston, C. Berven, B. Williams and A. Basu

**3:00 pm -3:30 pm: Tea Break**  
**Venue: Council Bhaban**

**Industry Mix and Closing Ceremony**

*Venue: Council Bhaban, BUET*

03.30 pm      Guests Take Their Seats

03.35 pm      Opening Remarks by Professor Dr. M. Tamim, Chairman, ICPE 2016

03.45-4.20 pm      Speeches on ‘*Industry Mix*’ theme “**Future challenges within the Energy Sector of Bangladesh**” by Designated Discussants

04.20-4.50 pm      ‘*Industry Mix*’ Open Discussion

04.50-5.00 pm      Speech by Chief Guest, Mr. Md. Nazimuddin Chowdhury,  
Honorable Secretary, Energy and Mineral Resources Division, Govt. of  
People’s Republic of Bangladesh

05.00 pm      Award Giving Ceremony of Student Poster Competition

05.10 pm      Closing Remarks by Professor Dr. M. Tamim, Chairman, ICPE 2016

05.20 pm      Socialization

**6.00 pm -7.30 pm: Buffet Dinner**  
**Venue: BUET Cafeteria**