

# PRETTY MITRA

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## ACADEMIC CREDENTIALS

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Military Institute of Science and Technology (MIST), Dhaka, Bangladesh Bachelor of Science (B.Sc.) in Petroleum and Mining Engineering <b>Cumulative GPA: 3.69/4.00</b> <b>Rank: 4<sup>th</sup> among 24 students</b>	[2018 - 2022]
Higher Secondary Certificate (H.S.C) Viqarunnisa Noon School and College, Dhaka, Bangladesh. <b>GPA: 5.00 (5.00 scale)</b>	[2015-2017]
Secondary School Certificate (S.S.C) Viqarunnisa Noon School and College, Dhaka, Bangladesh. <b>GPA: 5.00 (5.00 scale)</b>	[2013-2015]
Junior School Certificate (J.S.C) Viqarunnisa Noon School and College, Dhaka, Bangladesh. <b>GPA: 5.00 (5.00 scale)</b>	[2012]

## SCHOLARSHIPS

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**Dean's list Scholarship:** Academic honor from **Military Institute of Science and Technology** [4 semesters]  
**Govt. Merit Scholarship:** Award by Ministry of Education, Bangladesh [In S.S.C. examination 2015]

## RESEARCH INTERESTS

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My research interests encompass energy storage and conversion, carbon capture sequestration, and utilization and more specifically multidisciplinary field of science that involves engineering applications. As a result, the significant study will have an influence on the growth and development of sustainable energy in any country.

## RESEARCH EXPERIENCE

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**Undergraduate Thesis** [2021-2022]

**Title:** A Data-Driven Approach to Predict Drill Cutting Particle Size for Hole Widening Drilling Operation  
**Authors:** Pretty Mitra, Abir Hasan Bhuiyan, AS Daiyan Ahmed and Jeronimo De Moura

**Conference Paper *\*\*Published*** [2022]

**Title:** "Study of Turning CO<sub>2</sub> into Fuel by Underground Coal Gasification in a Sustainable and Eco-Friendly Way"

**Authors:** Pretty Mitra, Naheen Sultana, Fariha Noshin Khan and Abir Hasan Bhuiyan.

**Conference:** TENSYP is one of the official annual conferences owned and organized by the IEEE REGION 10. 2022 IEEE Region 10 Symposium (TENSYP Bombay 2022) held at IIT Bombay, Mumbai from July 1 to 3, 2022.

**Review Paper *\*\*Published*** [2022]

**Title:** "An Overview of the Progress of CO<sub>2</sub> Capture Technologies"

**Authors:** Pretty Mitra, S. M. Masum Ahmed, Dewan Mahnaz Mahmud and Mohammad Zeyad.

**Conference:** 2022 11th International Conference on Power Science and Engineering (ICPSE 2022) and to be held during September 23-25, 2022 in Eskisehir, Turkey.

**Magazine Article *\*\*Submitted*** [2022]

**Title:** "Alternative transportation system for utilizing the unutilized gas of Shahbazpur Gas Field"

**Authors:** Pretty Mitra, Naheen Sultana

**Magazine Article *\*\*Published*** [2020]

**Title:** "Earth's Future: Mitigate, Adapt or Suffer?", "the EARTH: ISSUE NO-02 | 2020"

**Authors:** Pretty Mitra

**Magazine is published by** University of Dhaka American Association of Petroleum Geologists (AAPG) Student Chapter.

**Poster Presentation**

[2021]

**Title:** "Future-Proofing of Sustainable Bangladesh with Geothermal Energy"

Authors: **Pretty Mitra**, Abir Hasan Bhuiyan

**Journal Article \*\*Submitted**

[2022]

**Title:** "A Data-Driven Approach to Predict Drill Cutting Particle Size for Hole Widening Drilling Operation"

Authors: AS Daiyan Ahmed, Abir Hasan Bhuiyan, **Pretty Mitra**, and Jeronimo De Moura

**TECHNICAL SKILLS**

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- SPSS (Statistical Package for Social Science)
- Arc GIS
- Rockworks
- MATLAB
- Petrel
- Pipesim
- Programming Language: C,C+
- Microsoft Office
- Schlumberger Eclipse
- Ventsim

**STRENGTHS**

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- ◆ Time management
- ◆ Leadership
- ◆ Effective communicator
- ◆ Decision making
- ◆ Presentable and articulate
- ◆ Highly motivated

**WORK EXPERIENCE**

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**Internship**

- ✓ Titas Gas Field [27 Feb., 2021- 16 March, 2021]
- ✓ Bashundhara LP Gas Limited
- ✓ Bangladesh Energy Regulatory Commission (BERC)

**AWARDS & ACHIEVEMENTS**

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- ✓ **Regional Finalist** at HULT Prize Punjab Impact Summit 2021 [2021]
  - The HULT Prize is a year-long, global competition that challenges young people to solve the world's most pressing issues through social entrepreneurship by creating innovative social ventures. In 2021, the HULT Prize challenged students to rethink the broken food systems by transforming food into a cycle for change.
- ✓ **1<sup>st</sup> Runner-Up** position in HULT Prize at MIST (On Campus Program) [2021]
  - The On-Campus program serves as the first phase of the HULT Prize competition. The goal of every On-Campus program is to select a winning team, who will represent their university in the Regional Summits.
- ✓ **1<sup>st</sup> Position** on PME Top Logger-A competitive programming contest, PME Dept, MIST [2020]
- ✓ **Champion** position on Innovative Idea Showcasing (IIS) at Sustainable Energy Contest-2021, PME Dept, MIST [2021]
- ✓ **2<sup>nd</sup> Runner-Up** position at CV writing competition on "Future of Oil and Gas Industry with CV Writing Composition" organized by SPE Dhaka University Student Chapter. [2020]
- ✓ **Champion** team in Megamind 1.0, Industrial and Production Engineering Department, MIST. [2020]
- ✓ Petro Picasso - a drawing contest on "Migration of Crude" organized by AC. Tech Anna University SPE Student chapter, my drawing has been published as the best one in the 2nd edition of their magazine "BlackGold". [2021]
- ✓ Presented paper titled "Study of turning CO2 into fuel by underground coal gasification in a sustainable and eco-friendly way" is presented in the **IEEE Region 10 Symposium Tensymp-2022** organized by IEEE Bombay section at VMCC, IIT Bombay, India held during 1<sup>st</sup>-3<sup>rd</sup> July 2022.
- ✓ Presented on SPSS software as **Guest Lecturer** [2022]

## CERTIFICATIONS

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- ✓ Certificate signed by 42nd USA President Bill Clinton for securing position among top 6 as regional finalist at Hult Prize Punjab Impact Summit 2021.
- ✓ Completion certificate for “Natural Gas”, Buffalo University (Coursera)
- ✓ Completed certificate for "Oil & Gas Industry Operations and Markets", Duke University (Coursera)
- ✓ Certificate for Securing 2nd Runner Up position at CV writing competition on "Future of Oil and Gas Industry with CV Writing Composition" organized by SPE Dhaka University Student Chapter
- ✓ Certificate for being champion team in Megamind 1.0 organized by Industrial and Production Engineering Department of MIST
- ✓ Certificate and crest for being 1st Runner Up in HULT Prize at MIST
- ✓ Certificate for completion of a 2 Day "Virtual Workshop on Rock Physics & Seismology" organized by University of Dhaka Student Chapter of SEG (UDGS)
- ✓ Certificate for attending workshop on 'Carbon Dioxide based Enhanced Oil Recovery Technology' organized by The Society of Petroleum Engineers Dibrugarh University Student Chapter
- ✓ Certificate for being Champion position on Innovative Idea Showcasing (IIS) at Sustainable Energy Contest-2021 is organized for the very first time by the Department of Petroleum and Mining Engineering of Military Institute of Science and Technology (MIST)
- ✓ Certificate for securing 1st position PME Top Logger-A competitive programming contest organized by Petroleum and Mining Engineering Department of MIST
- ✓ Certificate for presenting paper titled “Study of turning CO<sub>2</sub> into fuel by underground coal gasification in a sustainable and eco-friendly way” is presented in the IEEE Region 10 Symposium Tensymp-2022 organized by IEEE Bombay section at VMCC, IIT Bombay, India held during 1<sup>st</sup>-3<sup>rd</sup> July 2022.

## AFFILIATIONS

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<b>Vice-President</b> , MIST Society of Petroleum Engineers Student Chapter	[2021-2022]
<b>Class Representative</b> , Dept. of Petroleum and Mining Engineering, MIST	[2018-2019]
<b>Volunteer</b> , Viqarunnisa Noon School and College	[2012-2013]

## RELEVANT COURSES

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- ✓ Thermodynamics
- ✓ Heat and Mass Transfer
- ✓ Fluid Mechanics
- ✓ Engineering Statistics
- ✓ Differential and Integral Calculus
- ✓ Differential Equation and Vector Analysis
- ✓ Operational Calculus and Numerical Analysis