



Department of Mechanical Engineering
Khulna University of Engineering & Technology
Khulna - 9203, Tel:041-769471 (191); Fax :041-774403



Dr. Md. Shahidul Islam

Professor

Research Area Computational Mechanics
(Solid Mechanics and Materials Engineering)

Education

Doctor of Engineering

Nagaoka University of Technology (NUT), Japan (2012)

Thesis Title: [Analysis of 3D Intensity of Singular Stress Fields in Two-phase Transversely Isotropic Piezoelectric Bonded Joints](#)

Masters of Engineering

Nagaoka University of Technology (NUT), Japan (2009)

Thesis Title: [Stress Singularity Analysis in 3D-Transversely Isotropic Piezoelectric Bimaterials](#)

Bachelor of Science in Engineering (B.Sc. Engineering)

Khulna University of Engineering & Technology (KUET), Bangladesh (2001) Group: Mechanical Engineering,

Higher Secondary Certificate (HSC)

Noapara College, Abhaynagar, Bangladesh (1995) Group: Science,

Secondary School Certificate (SSC)

Rajhat Jafarpur Secondary School, Bangladesh (1993) Group: Science,

Service Records

- **Chairman, Executive Committee**
Department/Section: Executive Committee (Faculty of ME)
Khulna University of Engineering & Technology (KUET) From 2023-01-20 00:00:00 to 1970-01-01 06:00:00
- **Member, Academic Council**
Department/Section: KUET
Khulna University of Engineering & Technology (KUET) From 2014-07-06 00:00:00 to 1970-01-01 06:00:00
- **VC (Acting)**
Department/Section: KUET
Khulna University of Engineering & Technology (KUET) From 2024-08-06 00:00:00 to 2024-08-11 00:00:00
- **Professor (Grade- 2)**
Department/Section: Department of Mechanical Engineering
Khulna University of Engineering & Technology (KUET) From 2020-12-08 00:00:00 to 1970-01-01 06:00:00
Responsibility: Engineering
- **Member**
Department/Section: Committee for Advance Studies and Research (CASR)
Khulna University of Engineering & Technology (KUET) From 2019-12-01 00:00:00 to 2022-03-12 00:00:00
- **Dean, Faculty of ME**
Department/Section: Faculty of Mechanical Engineering
Khulna University of Engineering & Technology (KUET) From 2023-01-20 00:00:00 to 1970-01-01 06:00:00
- **Member of the Syndicate**
Department/Section: The University Syndicate
Khulna University of Engineering & Technology (KUET) From 2023-01-20 00:00:00 to 2023-07-31 00:00:00
- **Member, Officer Selection Committee**
Department/Section: Officer (Grade-4 to Grade-10)
Khulna University of Engineering & Technology (KUET) From 2022-03-13 00:00:00 to 1970-01-01 06:00:00
- **Head, ME**
Department/Section: Department of Mechanical Engineering
Khulna University of Engineering & Technology (KUET) From 2020-06-29 00:00:00 to 2022-06-28 00:00:00
Working Area: Head of the Department
- **Secretary, CRTS-ME**
Department/Section: CRTS, Department of Mechanical Engineering
Khulna University of Engineering & Technology (KUET) From 2017-01-01 00:00:00 to 2018-12-31 00:00:00
- **Organizing Secretary of ICMIEE 2018**
Department/Section: Faculty of Mechanical Engineering
Khulna University of Engineering & Technology (KUET) From 2018-02-01 00:00:00 to 2018-12-31 00:00:00
Working Area: International Conference
- **Member, CASR**
Department/Section: Committee for Advance Studies and Research (CASR)
Khulna University of Engineering & Technology (KUET) From 2023-01-20 00:00:00 to 1970-01-01 06:00:00
Working Area: Advance Studies and Research
- **Chairman, CRTS-ME**
Department/Section: CRTS, Department of Mechanical Engineering
Khulna University of Engineering & Technology (KUET) From 2019-07-01 00:00:00 to 2021-06-30 00:00:00
Working Area: Consultancy, Research & Testing
- **Consultancy, Research & Testing Officer**
Department/Section: CRTS, Department of Mechanical Engineering

Khulna University of Engineering & Technology (KUET) *From 2003-03-09 00:00:00 to 1970-01-01 06:00:00*

Working Area: Consultancy, Research & Testing

- **Assistant Engineer**

Department/Section: Mechanical Engineering

Prasthapan Limited *From 2002-04-01 00:00:00 to 2002-08-31 00:00:00*

Working Area: Engineering

- **Maintenance Engineer**

Department/Section: Utility and Service

Dhaka Tobacco Industry *From 2002-09-01 00:00:00 to 2002-11-01 00:00:00*

Working Area: Engineering

- **Executive**

Department/Section: Power Plant

Beximco Textiles Limited *From 2002-11-02 00:00:00 to 2003-03-08 00:00:00*

Working Area: Engineering

- **Lecturer**

Department/Section: Department of Mechanical Engineering

Khulna University of Engineering & Technology (KUET) *From 2003-03-09 00:00:00 to 2006-05-08 00:00:00*

Working Area: Solid Mechanics and Material Engineering

- **Assistant Professor**

Department/Section: Department of Mechanical Engineering

Khulna University of Engineering & Technology (KUET) *From 2006-05-09 00:00:00 to 2014-07-05 00:00:00*

Working Area: Solid Mechanics and Material Engineering

- **Professor (Grade- 3)**

Department/Section: Department of Mechanical Engineering

Khulna University of Engineering & Technology (KUET) *From 2016-09-06 00:00:00 to 2020-12-07 00:00:00*

Working Area: Solid Mechanics and Material Engineering

- **Associate Professor**

Department/Section: Department of Mechanical Engineering

Khulna University of Engineering & Technology (KUET) *From 2014-07-06 00:00:00 to 2016-09-05 00:00:00*

Working Area: Solid Mechanics and Material Engineering

Research Interest

Computational Mechanics (Solid Mechanics and Materials Engineering)

1. Analysis of intensity of singularity at a vertex in 3D transversely isotropic piezoelectric bonded joints by boundary element method.
2. Analysis of order of singularity in 3D transversely isotropic piezoelectric and elastic bonded joints by finite element method.

The Intensity of singularity for the bimaterial joint can be evaluated by the Boundary Element Method (BEM) and the order of the stress singularity for the bimaterial joint can be evaluated by the eigen analysis based on Finite Element Method (FEM). In our present investigation, we use 3D transversely isotropic piezoelectric and elastic bonded structure. The influence of the electric field should be considered for the deformation of the piezoelectric material. We analyze the optimal material combination such that the intensity of singularity and order of the stress singularity can be minimized.