

ISSN 2708-9835

# BAUST JOURNAL

Volume 1

Issue 1

August 2020



**Bangladesh Army University of Science and Technology**  
**Saidpur Cantonment, Saidpur - 5311, Nilphamari**  
**Bangladesh**

# BAUST JOURNAL

## **Nature of Publication**

Peer reviewed semiannual engineering and multidisciplinary research journal.

## **Disclaimer**

The analysis, opinions and conclusions expressed or implied in this journal are those of the author and do not necessarily represent the views of the BAUST, Bangladesh Armed Forces or any other agencies of Bangladesh Government. Statements of fact or opinion appearing in BAUST journal are solely those of the authors and do not imply endorsement by the editors or publisher.

**ISSN 2708-9835**

## **Proof Reader**

Mohammad Hasan, Lecturer, Dept. of CSE

## **Style Edited by**

Professor Dr Md Mamunur Rashid, Dean, Faculty of ECE

Mafin Muntasir Rahman, Assistant Professor, Dept. of EEE

Taher Muhammad Mahdee, Assistant Professor, Dept. of CSE

## **Cover Design**

Muhammad Tanvir Rahman

Student ID: 160201076, Dept. of CSE, BAUST

## **Printed by**

Ankita Printers, Rangpur

## **Published by**

Institutional Quality Assurance Cell (IQAC), BAUST

Contact: +880-1769662722, email: director\_iqac@baust.edu.bd

**Web: [journal.baust.edu.bd](http://journal.baust.edu.bd)**

*Copyright © 2020 IQAC, BAUST, all rights reserved by the publisher. No part of this publication may be reproduced, stored in retrieval system, or transmitted in any form, or by any means, electrical, photocopying, recording, or otherwise, without the prior permission of the publisher.*

## **Subscription Rate (Single Copy)**

Individual: BDT 250/ USD 10

Individual: BDT 350/ USD 15 (including postage)

# Message

Area Commander, Rangpur Area and  
General Officer Commanding, 66 Infantry Division



I am very happy to know that Bangladesh Army University of Science and Technology (BAUST) has published its 1<sup>st</sup> issue of “**BAUST Journal**”. Certainly, this is a great accomplishment and a mark of development for BAUST, a new-fangled university, under the supervision of Bangladesh Army. This journal also shows the promise of BAUST to distribute quality education in the engineering, science, humanities and business studies sectors.

Education is the backbone of national progress and development. A notable portion of our population is young. This young generation should be turned into human resources to sustain in the present world. A student must have knowledge of current issues along with their syllabus based academic curriculum. Research work is the best option for a student to gain profound knowledge and make himself/ herself self-motivated to innovate something new. From the foundation, BAUST is tremendously glowing in this regard. The publication of their maiden journal at an early age bears the firm evidence that academicians and students here are getting the opportunities to conduct research activities and an exposure to flourish their latent talent in favor of mankind.

I would like to convey my sincere appreciation to the Vice Chancellor of BAUST for this remarkable initiative. I also offer my heartfelt gratitude to the members of the editorial board, and all who contributed to the enrichment and publication of this journal directly and indirectly.

I wish continued and constant reputation of “BAUST Journal”.

Major General Md Nazrul Islam, ndu, afwc, psc, G  
Area Commander, Rangpur Area  
General Officer Commanding, 66 Infantry Division  
and  
Member, Board of Trustees, BAUST

# EDITORIAL BOARD

## Chief Patron

Brig Gen Professor Dr Md Lutfor Rahman (LPR)  
Vice Chancellor

## Advisor

Colonel Md Neamul Islam Fatemi, Bir protik, BGBM, afwc, psc (Retd)  
Controller of Examinations

## Chief Editor

Professor Dr. Naseem Ahmed  
Dean, Faculty of Mechanical Engineering

## Editor

Professor Dr Md Mamunur Rashid  
Dean, Faculty of Electrical and Computer Engineering

## Associate Editors

Professor Md. Abaydur Rahman Pramanik  
Dean, Faculty of Business Studies

Mst. Shahanaz Khanam  
Associate Professor & Dean, Faculty of  
Science and Humanities

## Members

Dr.-Ing. Irfan Ahmed  
Associate Professor & Head, Dept. of ME

Ashrafun Naher Pinky  
Assistant Professor & Head, Dept. of EEE

Dr. Kazi Mohammad Anamoul Haque  
Assistant Professor & Head, Dept. of A&S

Dr. Muhammad Ahsan Habib  
Assistant Professor & Head, Dept. of IPE

Dr. S. M. Sadakatul Bari  
Assistant Professor & Head, Dept. of CSE

Dr. Mohammed Sowket Ali  
Assistant Professor & Dept. of CSE

## External Members

Professor Dr. Maglub Al Nur  
Department of ME, BUET

Professor Dr. Md. Aynal Haque  
Department of EEE, BUET

Professor Dr. Muhammad Masroor Ali  
Department of CSE, BUET

Professor Dr. Maj Nazmul Ahsan Kalimullah, BNC CO  
Vice Chancellor, Begum Rokeya University

# Message

Vice Chancellor

Bangladesh Army University of Science and Technology



I am extremely delighted on the occasion of publishing the very first issue of “BAUST Journal”. Bangladesh Army University of Science and Technology (BAUST), aiming to provide quality education, keeps a strong focus in research activities from the very beginning of its journey. BAUST Journal portrays the fundamental contributions in research work on global and local interests not only on fastest-growing fields of innovative technology but also on the sectors of business and social issues. A good number of peer-reviewed works have been published in this journal which, I strongly believe, will be beneficial for the students as well as other readers academically. These articles also show a glimpse of the current trend of research as well.

BAUST has amplified its effort to increase the number of Ph.D. faculties in all the departments to ensure that the students may get familiar with the research activities from the very beginning of their varsity lives.

The publication of this journal was never an easy task. The editorial team and members of the Journal Committee have made this possible with the inspiration and dynamic support from the Board of Trustees of Bangladesh Army University of Science and Technology. I express my gratitude towards them. I also thank Bangladesh Army and Area Headquarter, Rangpur Area for their continuous support, and noteworthy contribution to the development of BAUST and the publication of this journal particularly. I appreciate all the researchers for their contributions to this journal. I thank the members of the editorial board and associated personnel for their extraordinary efforts in publishing the first issue of “BAUST Journal”. May the Almighty Allah bless us and help us in our noble endeavors.

Brig Gen Professor Dr Md Lutfor Rahman (LPR)

Vice Chancellor

Bangladesh Army University of Science and Technology

and

Chief Patron, BAUST Journal

## Message

Advisor, BAUST Journal

It is indeed a matter of great pleasure for me to see that the 1<sup>st</sup> BAUST Journal has been published. Doing anything for the 1<sup>st</sup> time is undoubtedly a tough job, but because of the hard work of the concerned people, this tough job has been made possible. I sincerely thank all the authors for their appropriate and praiseworthy write-ups. I also thank the Editor in Chief, the Editor and all the respected members of the editorial board for the relentless persuasion and pains-taking. I wish this beginning will be a wonderful beginning for BAUST. May Allah take BAUST long way.



Colonel Md Neamul Islam Fatemi  
Bir protik, BGBM, afwc, psc (Retd)  
Controller of Examinations, BAUST  
and  
Advisor, BAUST Journal

## Message

Chief Editor, BAUST Journal

I am very happy to inform you all that finally the 1<sup>st</sup> issue of BAUST Journal is being published. I hope the articles published in the first issue of the journal may leave a big impact on the academic sector. I congratulate the authors for their contributions. My heartiest thanks to the honorable Vice Chancellor, Advisor, all members of the editorial board, and all who are involved with the publication of this journal. I would like to convey my special thanks to Professor Dr Md Mamunur Rashid, the Editor of this journal, for his sincere efforts.

We hope that BAUST Journal will be better and better with the passage of time.



Professor Dr. Naseem Ahmed  
Dean  
Faculty of Mechanical Engineering, BAUST  
and  
Chief Editor, BAUST Journal  
*email: chief\_editor\_bj@baust.edu.bd*

## Note of Editor

It is my immense pleasure to write an editorial note on the 1<sup>st</sup> volume of BAUST Journal published by Bangladesh Army University of Science and Technology (BAUST). This volume includes 14 research articles covering various aspects of science, engineering, technology, literature, business, social science, and other related fields. The contributions are mostly produced by young researchers of different disciplines. I congratulate the contributors for their thought-provoking works. It is expected that their contributions would be encouraging for themselves to engage in further researches and stimulating other researchers and students in the respective fields of interest.

Following the practice, a panel of highly reputed and renowned experts of different fields from different universities of Bangladesh undertook the very important and painstaking job of evaluating the merits of the articles published in the present volume. The valuable comments and suggestions provided by the reviewers certainly enriched the academic heights of the articles as well as the journal. The editorial board is thus rightly grateful to those respected reviewers for their contribution to ensure the international standard of this journal.

On behalf of the editorial board, I would like to take the opportunity to pay our heartiest gratitude to our Chief Patron, honorable Vice Chancellor of BAUST for his kind guidance to publish this journal. Each and every member of the editorial board contributed to the publication of this volume of BAUST Journal in different ways. Their hard work certainly improved the quality of the manuscript and review collection.

I believe readers will be benefited from this journal and it will be a landmark in the state of the art of higher study in Bangladesh. It is expected that their sincere feedback and contributions will enrich the BAUST Journal in the future.



Professor Dr Md Mamunur Rashid  
Dean  
Faculty of Electrical and Computer Engineering, BAUST  
and  
Editor, BAUST Journal  
*email: editor\_bj@baust.edu.bd*

# Contents

Title page

Disclaimer

Message from Area Commander, Rangpur Area and GOC, 66 Infantry Division

Editorial Board

Message from Vice Chancellor

Message from Advisor

Message from Chief Editor

Note of Editor

Contents

**Crime Information Extraction and Classification from English Newspaper to Explore a Horizon for Bangla Language: A Systematic Literature Review**

*Salma Tabashum, Ariful Islam, Fahmida Naznin Fami, Mun Yea Mahafi Taz Zahara and Md Mamun Hossain*

**Supercontinuum Generation in Soft Glass Based Suspended Core Microstructured Optical Fiber**

*Redwan Ahmad, Mir Mehedi Al Hammadi, Md. Rabiul Islam, Md. Al-Amin and Ashrafun Naher Pinky*

**A Comparison of Accuracy on Clinical Decision Support System Using Different Classifiers**

*Fatema Tuz Zohra, Md Mamunur Rashid and Ashrafun Zannat*

**A Review on Detection of Prostate Cancer Using Different Computer-Aided Diagnosis Techniques**

*SK Fahad As Sami, Shad Bin Abi Aydid, Nabila Parvin, Asif Parvez Sarkar and Md. Nakib Hayat Chowdhury*

**Performance Analysis of Inverted F Antenna Using Slotted Patch**

*Sarafat Hussain Abbi, Sifat Hossain, MD. Meftahul Haque, Tarun Kumar Roy, MD. Miraz-Ul-Kabir and Ashrafun Naher Pinky*



<b>Bangla Spell Checker: A State of the Art</b>	28
<i>Vaima Islam Nodi, Nabila Anwar, Iftakharul Islam, S. M. Raihan, Md. Moazzem Hossain, Md Mamunur Rashid and Syed Akhter Hossain</i>	
<b>Factors Affecting Consumer Acceptance of Word of Mouth Recommendations in Case of Private University Admission</b>	33
<i>Syed Habib Anwar Pasha and Sravasti Goswami</i>	
<b>Impact of Pointing Error on the Performance of Underwater Wireless Optical Communication System Using BPSK Modulation Technique</b>	40
<i>Mir Mehedi Al Hammadi, Redwan Ahmad, Abu Bakar Siddik, Md. Rabiul Islam, Ashrafun Naher Pinky and Md Mamunur Rashid</i>	
<b>Femme Fatale or New Woman? Revisiting the Women in Saul Bellow's <i>The Actual</i></b>	45
<i>Rumana Rahman and Md. Shahrear Talukder</i>	
<b>Women Portrayal and Development in Shakespearean Dramas</b>	52
<i>Amir Mohammad Khan, Sameer Shamsir Rahman and Umme Shifati Islam</i>	
<b>A Comparative Review of Detecting Alzheimer's Disease Using Various Methodologies</b>	56
<i>Md. Redwanur Rahman, Md. Tofayel Hossain, Nafisa Nawal, Md. Shahidujjaman Sujon, Abu Saleh Musa Miah and Md Mamunur Rashid</i>	
<b>Measuring the Competitiveness of Travel and Tourism Sector of Bangladesh</b>	66
<i>Md. Abdul Hamid</i>	
<b>Artificial Intelligence - Present and Future Jobs</b>	77
<i>Kazi Atai Kibria, Al Akram Chowdhury, Shahanaz Pervin, Md. Ragib Shahriar Abu Musa Saleh Mia and Md Mamunur Rashid</i>	
<b>Preference Analysis of Somali Students Conducting Higher Study in Bangladesh and the Impact in Their Career</b>	85
<i>Mohammad Tawhid Reaz and James Jacob Ribero</i>	