

GANIT
JOURNAL OF
BANGLADESH MATHEMATICAL SOCIETY

Vol. 34

2014



Executive Editor
Munibur Rahman Chowdhury

Associate Editor
Md. Shafiqul Islam

EDITORIAL BOARD

Md. Ainul Islam	Sajeda Banu
M. Anwar Hossain	Quamrul Islam
Akhil Chandra Paul	Md. Abdul Hakim Khan
Md. Shahidul Islam	Laek Sazzad Andallah
Md. Showkat Ali	

Editorial Office

Department of Mathematics
A F Mujibur Rahman Ganit Bhaban
University of Dhaka
Dhaka-1000
Bangladesh

One Volume of **GANIT Journal of Bangladesh Mathematical Society** is published every year by
BANGLADESH MATHEMATICAL SOCIETY

The copyright of **GANIT Journal of Bangladesh Mathematical Society** is reserved by

Bangladesh Mathematical Society (web: <http://bdmathsociety.org/>)

ACKNOWLEDGEMENT

A generous contribution of the Ministry of Science and Information and
Communication Technology
Government of the People's Republic of Bangladesh
towards the publication of
GANIT Journal of Bangladesh Mathematical Society
is gratefully acknowledged

- Publication Date (Volume 34) December 2014
- Price per volume including surface postage

Institution	:	Inland Tk.	400.00	Foreign	US \$ 50.00
Individuals	:	Inland Tk.	200.00	Foreign	US \$ 30.00
- Payment must accompany orders. Please add US \$ 10.00 for air mail delivery to Burma, India, Nepal, Pakistan and Srilanka, and US \$ 20.00 for air mail delivery to other parts of the world.
- **Address for all orders and enquiries**

Secretary, Bangladesh Mathematical Society,
A F Mujibur Rahman Ganit Bhaban
University of Dhaka
Dhaka-1000, Bangladesh.
- **Computer typesetting and printing**

BCS Printing
Rafin Plaza (2nd Floor)
3/B Mirpur Road, Dhaka-1205
Phone: 01710880728
Email: mamunmiah1977@yahoo.com

AUTHOR GUIDELINES

- **GANIT** *Journal of the Bangladesh Mathematical Society* features selected contributions of pure and applied mathematics. The emphasis will be on the original research papers, but from time to time GANIT will publish expository papers or survey articles. All contributions are to be rigorous in nature and mathematical in treatment and should be written in English.
- **Manuscripts** should be submitted in a soft-copy in MS-WORD in single space via email: ganit.bms@gmail.com to the Associate Editor.
 - All submissions to GANIT must be original, unpublished previously, and not submitted elsewhere and not under consideration for publication elsewhere.
 - Authors must ensure that contents of any submission are not held by the copyright of any other publication.
 - It is assumed that the submission is approved by all authors and the concerned authorities where the work was carried out.
 - It is the author's responsibility that any submission does not contain libelous or unlawful statements or in any way infringe the rights of others.
 - Copyrights for articles published in GANIT are retained by the authors, with first publication rights granted to GANIT as the work simultaneously licensed under a Creative Commons Attribution License that allows others to share the work with an acknowledgment of the work's authorship and initial publication in this journal.
- Authors are encouraged to provide a list of at least 3 (three) reviewers along with reviewer's Name, affiliation, email address.
- **Manuscripts** should be typed double spaced on one side of 8.5" × 11" inch or A4 size with one inch margin all around.
- All pages of the manuscript should be numbered. Page 1 should contain the article title, author and co-author names and affiliation(s). Any footnotes to the author(s) are to be placed at the bottom of page 1; page 2 should have a proposed running head (in abbreviated form of the title) of less than 40 characters.
- An **abstract** summarizing the main points of the article should be written on page 3 of the manuscript in font size 9. The abstract should not exceed 250 words.
- **Mathematical expressions** should be avoided in the title and abstract as far as practicable.
- References should be avoided in abstract.
- Footnotes in the text should be avoided. If they are essential, they should be numbered consecutively by superscript and placed at the end of the paper, before the list of references.

- All mathematical expressions should be typewritten, if possible. Equations should be numbered serially or section-wise and indicated in the right margin.
- Use of **Greek letters** as superscripts and subscripts should be avoided. Levels of subscripts and superscripts should be clearly maintained.
- Complicated fractions in the text should be written using solidus (/) or negative exponents.
- $e^{()}$ should be replaced by $\exp()$ where the expression in the parenthesis is complicated. Radical signs should also be replaced by fractional exponents as far as practicable.
- Clear distinction between upper and lower case letters, between ‘oh’ and ‘zero’, between ‘el’ and ‘one’, between ‘kay’ and ‘kappa’, ‘bhee’ and ‘nu’ etc. should be made.
- Authors are requested not to underline subheadings and mathematical symbols, as they will be automatically set in accordance with the style of the journal.
- **Diagrams** should be submitted as original line drawings on white drawing papers or tracing papers. Each diagram should be made on a separate sheet and numbered consecutively. **Lettering** and **data points** should be large enough so that when reduced to fit on the journal page they can be read with ease. **Legends** to diagrams should be typed on a separate sheet and attached at the end of the manuscript.
- **Tables** should be numbered consecutively, typed carefully on separate sheets in exact format desired and attached at the end of the manuscript. Table headings should be short but clearly descriptive.
- **References** should be listed in alphabetical order of surnames, at the end of the manuscript, as in the examples below:
 - [1] Cronin, J., Bifurcation of periodic solutions. *J. Math. Anal. Appl.* 68 (1979), 130-151
 - [2] Lee, E. B. and Markus, L. Optimal control for nonlinear processes, *Arch. Rat. Mach. Anal* 8 (1961), 36-58.
 - [3] Timoshenko, S. and Goodier, J. N. *Theory of Elasticity*, McGraw-Hill Book Co., New York, 1970.
- **References** should be cited in the text by the serial number from the above list placed between square brackets as [1], [2], etc.
- **Galley proofs** may be sent to the author, if necessary. In that case they should be returned within 48 hours of receipt with correction marks. No new material may be inserted in the text at the time of proof reading.
- **More information can be found from** <http://bdmathsociety.org/>

GANIT

JOURNAL OF THE BANGLADESH MATHEMATICAL SOCIETY

Vol. 34

2014

CONTENTS

MUNIBUR RAHMAN CHOWDHURY	Hausdorff's Grundzüge der Mengenlehre	1-4
A. ISLAM, M. BABUL HASAN AND H. K. DAS	A New Decomposition-Based Pricing Technique For Solving Large-Scale Mixed IP with a Computer Technique	5-20
MD. MIZANOR RAHMAN AND AKHIL CHANDRA PAUL	Jordan Derivations on Completely Semiprime Gamma-Rings	21-26
KALYAN KUMAR DEY AND AKHIL CHANDRA PAUL	Commutativity of Prime and Semiprime Γ -Rings with Symmetric BI-Derivations	27-33
MD. MIZANOR RAHMAN AND AKHIL CHANDRA PAUL	Jordan Derivations on Lie Ideals of Semiprime Γ -Rings	35-46
ALI AKBAR, A. SARKAR AND MD. SHOWKAT ALI	Some Curvature Properties in LP-Sasakian Manifolds with Respect to Generalized Tanaka Webster Okumura Connection	47-55
MD. REZAUL ISLAM AND SATRAJIT KUMAR SAHA	Endomorphism Rings are Centralizer Near-rings	57-61
A.K.M. SAFIQUUL ISLAM, M. A. ALIM, MD. REZAUL KARIM AND ATM. M. RAHMAN	Effects of Conduction Variation on MHD Natural Convection Flow Along a vertical Flat Plate	63-73
MOHAMMAD KHAIRUL ISLAM, MOHAMMED FORHAD UDDIN AND MD. M. ALAM	Supply Chain Optimization by Mixed Integer Program for Manufacturer and Retailer System of Poultry firm in Bangladesh	75-87
MANIK MONDAL, MOHAMMED FORHAD UDDIN AND KAZI ANOWAR HUSSAIN	Study of Inventory Model for Deteriorating Items With Exponential Demand Function	89-100
TAUHEDUL AZAM, M. K. PANDIT AND L. S. ANDALLAH	Numerical Simulation of a Second Order Traffic Flow Model	101-110
MD. S. ALAM, M.A.H. KHAN AND M.A. ALIM	Critical Analysis of Magnetohydrodynamic Jeffery-Hamel Flow Using Cu-Water Nanofluid	111-126

HONOURARY EDITORIAL ADVISORS

Professor Saleh Tanveer
Ohio State University, USA
Email: tanveer@math.ohio-state.edu

Professor Ian Turner
Queensland University of Technology
Australia
Email: i.turner@qut.edu.au

Professor H. S. Takhar
Metropolitan University, Manchester,
England
Email: harmindar.takhar@sky.com

Professor H. T. Rathod
Bangalore University, INDIA
Email: htrathod2010@gmail.com

Professor Shinichiro Yanase
Okayama University Japan
Email: yanase@mech.okayama-u.ac.jp

Professor Akira Nakayama
Shizuoka University, Japan
Email: tmanaka@ipc.shizuoka.ac.jp

Dr Shohel Mahmud
University: University of Guelph, Canada
Email: smahmud@uoguelph.ca

Mohamed Fathy El-Amin
King Abdullah Univ of Science and Tech, SA
Email: mohamed.elamin@kaust.edu.sa

H. M. Duwairi
The University of Jordan, Jordan
Email: Duwairi@ju.edu.jo

Professor Lian-cun ZHENG
University of Science and Technology, China
Email: liancunzheng@sina.com

Professor R. A. Damesh
Al-Balqa University, Jordan

Professor Hans Babovsky
Ilmenau University of Technology
Email: hans.babovsky@tu-ilmenau.de

Professor Andrew Bassom
The University of Western Australia
Email: head@maths.uwa.edu.au;

Dr Michail Wilson
University of Bath, England
Email: M.Wilson@bath.ac.uk

Professor S. Sundar
Indian Institute of Technology Madras, India
Email: slnt@iitm.ac.in

Professor Wieslaw Krawcewicz
The University of Texas at Dallas, USA
Email: wieslaw@utdallas.edu

Professor Bidyut Baran Saha
Kyushu University Japan
Email: saha@mech.kyushu-u.ac.jp

Professor G U Yuantong
Queensland University of Technology, Australia
Email: yuantong.gu@qut.edu.au

Fekry Mohamed Hady
Assiut University, Egypt
Email: fekrymh@hotmail.com

Professor M. A. Seddeek
Al-Qassim University. Saudi Arabia
Email: seddeek_m@hotmail.com

Professor H. M. Duwairi
The University of Jordan, Jordan
Email: Duwairi@ju.edu.jo

Professor Fouad Sayed Ibrahim
Umm-Alqurah University, Saudi Arabia

Email: rdamseh@yahoo.com

Email: fibrahim@aun.edu.eg