







April 2018 Volume - 7 Special Issue - 4(2)



ISSN: 2320-0294





**International Journal** of **Engineering, Science and Mathematics** 







**Special Issue** on Facets of Basic Sciences & Applications



In Association with Bijoy Krishna Girls' College, Howrah









Email Id: ijesmj@gmail.com Website: ijesm.co.in







# International Journal of

### **Engineering, Science and Mathematics**

Volume - 7 Special Issue - 4(2)







## **Editorial Board for Special Issue**

## soard for Special Issue

ISSN: 2320-0294





#### **Chief Editors**

Dr. Rupak Bhattacharyya Dr. Bidyadhar Mondal





#### **Editors**

Dr. Subhra Niyogi
Dr. Somen De
Dr. Tridib Bhunia

Pratap Mondal





## **External Advisory Editors**

Prof. Madhusudan Das

Professor, Department of Zoology, Dean of Science, University of Calcutta

Dr. Samarjit Kar

Associate Professor, Department of Mathematics, National Institute of Technology, Durgapur

Prof. Samit Kumar Ray

Professor, Department of Polymer Science & Technology, University of Calcutta

Prof. Ranjan Das

Professor, Department of Chemistry, West Bengal State University







#### **International Journal of Engineering, Science and Mathematics**

Vol. 7, Special Issue 4(2), April 2018, ISSN: 2320-0294

#### **Table of Contents**

Sl No	Title	Authors	Page No.
1	On Graphs of Alternating Knots	Samiran Banerjee	1-5
2	Recent Developments in the Foundation of Mathematics and Fundamental Analytic Flaws in Gödel's Incompleteness Thesis	Arnab Kumar Mukhopadhyay	6-17
3	Mathematical Modelling of Land Allocation Problem for Optimal Cropping Plan in Agricultural System Using Hybrid Goal Programming	Debjani Chakraborti	18-32
4	Unidentified tRNA Structure Identified in the Methanosarcina Mezei Strain Go 1	Uttam Roy Mandal	33-40
5	Variations on the Narayana Universal Code	Monojit Das	41-48
6	Generalized contraction results on probabilistic 2-metric spaces using acontrol function	Samir KumarBhandari	49-55
7	Analytical and numerical study of a nonlinear finance model via dynamical systems approach	Ranjan Das	56-64
8	Design and Synthesis of a New Extended N-donor Ligand and its Coordination Behaviour towards Zn(II), Cd(II) and Hg(II). Syntheses, X-ray Structures and Spectral Properties	Kunal Roy	65-76
9	Chemical Waste: That Impact on Aquatic Life or Water Quality	Biplab Mondal	77-81
10	Amphoteric Nature of Water is a reflection of change of molecular polarizability – A Theoretical Justification	Raka Biswas	82-87
11	Atomic Force Microscopy (AFM) and Its Uses	Debolina Mitra	88-97
12	Fe(III)- Coordinated Hydrogel and Photo-Induced Sol- Gel Process –A Case Study	Indrajit Chakraborty	98-108
13	Flocculation study of aqueous iron ore suspension using Shellac	Tanbir Nasim, Prosenjit Ghosh Abhijit Bandyopadhyay	109-115
14	Perovskite Solar Cell: a new era in Photovoltaic industry	Nandita Palit	116-124
15	Species specific stress and anti-oxidant activity against metal induced toxicity in Indian Major Carps,	Adity Sarbajna, Mahammed Moniruzzaman, Debjit Das, Suman Bhusan Chakraborty	125-134
16	Genetic and Molecular Basis of Internet Addiction: An Overview	Aniruddha Chatterjee	135-140
17	Food Diversity and Feeding Preference in Ornamental Fishes - A Comparative Study	Gargi Sarkar, Mandakranta Dasgupta, Sutapa Haldar, Ankur Bhowal, Debasish Karmakar	141-146
18	AT-125 in the modulation of EAC solid tumors	Subhadra Roy	147-152
19	Abundance and distribution pattern of intertidal shore crabs on exposed sandy beaches of bakhali, sundarbans	Ranu Naskar	153-159
20	Ultrastructural Changes of Radioattenuated <i>Leishmania</i> donovani, The Causative Organism of Human Kala-azar Disease	Sanjukta Manna	160-166
21	Pharmacological Investigation with Tea Root Extract (Camellia sinensis) Depicting its Non-toxicity as Therapeutic Herbal Agent	Papiya Ghosh (nee Chatterjee)	167-179