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Designation : Assistant Professor

Qualification: M.Sc., Ph.D.

Fields of Research: Mathematical Biology: Allometric Scaling, Organic Electronics

Publication of Books:

1. A Complete Course in Engineering Physics, Volume – I
S. Roy, T. Ghosh, D. Biswas, ISBN: 81-219-3068-5, Code: 10A 376
S. Chand & Company Ltd., New Delhi – 110055
First Edition 2009, Second Edition 2010, Third Edition 2011
2. A Complete Course in Engineering Physics, Volume – II
S. Roy, T. Ghosh, D. Biswas, ISBN: 81-219-3006-5, Code: 10A 365
S. Chand & Company Ltd., New Delhi – 110055
First Edition 2008, Revised Edition 2010

Recent Publications of Research Papers:

1. Dependence of the individual growth process upon allometric scaling exponents and other parameters. D. Biswas, S. K. Das, S. Roy *Journal of Biological Systems*, Vol. 16, No. 1, p. 151, 2008
2. Importance of scaling exponents and other parameters in growth mechanism: an analytical approach. D. Biswas, S. K. Das, S. Roy *Theory in Biosciences*, Vol. 127, p. 271, 2008
3. A theoretical interpretation of length-biomass allometry of predominantly bidimensional seaweeds. P. Majumdar and S. Roy *Journal of Theoretical Biology*, Vol. 266, Issue 2, p. 226, 2010
4. A mathematical study of the dynamics of conscious acquiring of knowledge through reading and cramming and the process of losing information from the brain by natural forgetting of facts. S. Roy and P. Majumdar *Psychology*, Vol. 1, p. 252, 2010
5. A theoretical analysis of the growth process of an organism and its dependence on various allometric relations. S. Roy, P. Majumdar, S. Ghosh *Natural Science*, Vol. 3, No. 9, p. 802, 2011

List of Publications in Journals

1. Computation of Electromagnetic Energy Flux Due to various Distributions of Oscillating Electric Dipoles
Sudipto Roy, Priyadarshi Majumdar, Melbin Varghese, Soumita Mondal, Debanjan Mookherjee, Anubhav Tirkey
Journal of Communication Engineering & Systems ISSN: 2249–8613 Volume 3, Issue 3, 2013
2. A study on the dependence of the dimensionless Brans-Dicke parameter on the scalar field and their time dependence
Sudipto Roy, Surajit Chattopadhyay and Antonio Pasqua
The European Physical Journal Plus, DOI 10.1140/epjp/i2013-13147-4
Eur. Phys. J. Plus (2013) 128: 147
3. A Study on Some Special Forms of Holographic Ricci Dark Energy in Fractal Universe
Surajit Chattopadhyay Antonio Pasqua and Sudipto Roy
ISRN High Energy Physics
Volume 2013, Article ID 251498, 6 pages
<http://dx.doi.org/10.1155/2013/251498>
4. Hydro-Gel Swelling Study and Modelling
Sudipto Roy, Priyadarshi Majumdar
International Journal of Drug Development & Research (ISSN 0975-9344)
April-June 2013, Vol. 5, Issue 2, 145-150
5. Study of the swelling behavior of Spherical water-gels in Sugar Solution
Sudipto Roy, Priyadarshi Majumdar
International Journal of Drug Development & Research (ISSN 0975-9344)
Jan-March 2013, Vol. 5, Issue 1, 252-257
6. An experimental study of the swelling properties of spherical hydro-gel immersed in water and the formulation of a simple theoretical model for its explanation.
Pallabi Das, Deeptak Biswas, Sudipto Roy, Priyadarshi Majumdar
International Journal of Drug Delivery 4 (2012) 20-30, ISSN: 0975-0215
7. A Simple Statistical Estimation of One's Performance in an MCQ Examination, Based upon Mock Test Results, Using Binomial Distribution of Probability
Sudipto Roy, Priyadarshi Majumdar
Open Journal of Statistics, 2012, 2, 452-459 doi:10.4236/ojs.2012.24057
8. Friction Controlled Three Stage Ladder Sliding Motion in a Non-conservative System: From pre-detachment to post-detachment
Priyadarshi Majumdar and Sudipto Roy
The African Review of Physics (2012) 7:0009, 67-81
9. A theoretical analysis of the growth process of an organism and its dependence on various allometric relations
Sudipto Roy, Priyadarshi Majumdar, Subhankar Ghosh
Natural Science, Vol.3, No.9, 802-811 (2011) doi:10.4236/ns.2011.39105

10. A Mathematical Study of the Dynamics of Conscious Acquiring of Knowledge through Reading and Cramming and the Process of Losing Information from the Brain by Natural Forgetting of Facts
Sudipto Roy, Priyadarshi Majumdar
Psychology, 2010, 1, 252-260 doi:10.4236/psych.2010.14034
11. A theoretical interpretation of length–biomass allometry of predominantly bidimensional seaweeds
Priyadarshi Majumdar, Sudipto Roy
Journal of Theoretical Biology 266 (2010) 226–230
12. Study of Hydrophytes in some Lentic Water Bodies in West Bengal, India Sanjb K Das, Dibyendu Biswas and Sudipto Roy
ECOPRINT 16: 9-13, 2009 ISSN 1024-8668 Ecological Society (ECOS), Nepal
www.ecosnepal.com
13. Importance of scaling exponents and other parameters in growth mechanism: an analytical approach
Dibyendu Biswas, Sanjb K Das and Sudipto Roy
Theory in Biosciences (2008) 127:271–276 DOI 10.1007/s12064-008-0045-9
14. Dependence of the Individual Growth Process upon Allometric Scaling Exponents and other Parameters
Dibyendu Biswas, Sanjb K Das and Sudipto Roy
Journal of Biological Systems, Vol. 16, No. 1 (2008) 151–163
World Scientific Publishing Company
15. Use of Biotic Community Structure as a Measure of Ecological Degradation
Sanjb K Das, Dibyendu Biswas and Sudipto Roy
Chinese Journal of Applied Environmental Biology 2007 13(5) 662-667
16. Phytoplanktonic Community of Organically Polluted Tropical Reservoirs in Eastern India
Sanjb K Das, Dibyendu Biswas and Sudipto Roy
Chinese Journal of Applied Environmental Biology 2007 13(4) 449 – 453
17. A Study of Organic Light-Emitting Devices Based on Electrostatic Self-Assembled Films of Evans Blue under AC Voltage
S. Roy and A. J. Pal
Physica Status Solidi (a) 193, No. 2, 367–376 (2002)
18. Impedance characteristics of layer-by-layer electrostatic self-assembled films of evans blue
Sudipto Roy, S. Kundu, S.K. Roy, Amlan J. Pal
Materials Chemistry and Physics 77 (2002) 784–790
19. Sequentially adsorbed layer-by-layer self assembled films: light-emitting devices based on evans blue
Sudipto Roy, Amlan J. Pal
Materials Science and Engineering C 18 (2001) 65–70

20. Transient electroluminescence under double rectangular voltage pulses in light-emitting devices based on Evans blue
Sudipto Roy, Amlan J. Pal
Solid State Communications 114 (2000) 589–592

21. Light-emitting devices based on evans blue under alternating-current and direct-current modes: different charge injection mechanisms
Sudipto Roy, Arabinda Chowdhury, Sharmistha Das, Amlan J. Pal
Synthetic Metals 113 (2000) 269–274

22. Charge Injection Mechanisms in Solid State Organic light-emitting Devices based on Alizarin-violet
Sharmistha Das, Arabinda Chowdhury, Sudipto Roy and Amlan J. Pal
Physica Status Solidi (a) 178 (2000) 811-818