

**Interdisciplinary Knowledge Series**

---

**BEYOND BOUNDARIES:  
INSIGHTS FROM HUMANITIES,  
SOCIAL AND BIO SCIENCES**

---

This First Edition published in November-2024

© November-2024 New Delhi Publishers, India

**Title: Beyond Boundaries: Insights from Humanities, Social and Bio Sciences**

**Editors:** P. Biswas, S. Sarkar and S. Pal

**Description:** First edition | New Delhi Publishers November-2024 | Includes bibliographical references and index.

**Identifiers:** ISBN 9788197653544 (Print) | 9788197653568 (eBook)

**Cover Design:** New Delhi Publishers

All rights reserved. No part of this publication or the information contained herein may be reproduced, adapted, abridged, translated, stored in a retrieval system, computer system, photographic or other systems or transmitted in any form or by any means, electronic, mechanical, by photocopying, recording or otherwise, without written prior permission from the publisher.

**Disclaimer:** Whereas every effort has been made to avoid errors and omissions, this publication is being sold on the understanding that neither the editors (or authors) nor the publishers nor the printers would be liable in any manner to any person either for an error or for an omission in this publication, or for any action to be taken on the basis of this work. Any inadvertent discrepancy noted may be brought to the attention of the publisher, for rectifying it in future editions, if published.

**Trademark Notice:** Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe



**NEW DELHI PUBLISHERS**

**Head Office:** 90, Sainik Vihar, Mohan Garden, New Delhi, India

**Corporate Office:** 7/28, Room No. 208/209, Vardaan House, Mahavir Lane, Ansari Road, Daryaganj, New Delhi, India

**Branch Office:** 216, Flat-GC, Green Park, Narendrapur, Kolkata, India

**Tel:** 011-23256188, 011-45130562, 9971676330, 9582248909

**Email:** [ndpublishers@gmail.com](mailto:ndpublishers@gmail.com)

**Website:** [www.ndpublisher.in](http://www.ndpublisher.in)

**BEYOND BOUNDARIES:  
INSIGHTS FROM HUMANITIES,  
SOCIAL AND BIO SCIENCES**

- Edited by -

**P. Biswas**

**S. Sarkar**

**S. Pal**



**NEW DELHI PUBLISHERS**

New Delhi, Kolkata



# Preface

In an increasingly interconnected world, the boundaries between disciplines often blur, revealing complex interactions that shape our understanding of society, culture, and the natural environment. “Beyond Boundaries: Insights from Humanities, Social and Bio Sciences” is a curated collection that explores these intersections, offering a diverse array of perspectives from teachers and scholars across multiple fields.

This volume aims to foster interdisciplinary dialogue, highlighting how insights from the humanities and social sciences can enrich biological understanding and vice versa. These chapters are the result of, and overlap with, the papers presented at the International Conference *ICMRM 23*, held on October 12-13 at *Bhairab Ganguly College, Belgharia, Kolkata-700056, West Bengal, India*. By bridging these domains, we hope to illuminate the intricate tapestry of human experience and the natural world, encouraging innovative approaches to contemporary challenges.

Each contribution in this collection reflects the authors’ commitment to transcending traditional disciplinary confines, engaging with pressing issues such as health, ethics, environmental sustainability, and cultural identity. We invite readers to join us on this journey of exploration and discovery, as we seek to understand the complexities of our world beyond conventional boundaries.

We extend our gratitude to the contributors for their thought-provoking work and to our readers for their curiosity and engagement. Together, let us embrace the richness of interdisciplinary inquiry and its potential to inspire transformative ideas.

## **Editors**

Dr. P. Biswas

Shri. S. Sarkar

Dr. S. Pal

# **About the Interdisciplinary Knowledge Series, New Delhi Publishers, New Delhi, India**

Interdisciplinary Knowledge Series (IKS) is an advanced book series under New Delhi Publishers, New Delhi, India incorporates different interdisciplinary areas for publications ranging from Interdisciplinary Social Science to Liberal Arts, Applied Sciences to Basic Sciences, Commerce and Management Sciences, Sciences and Technologies related to the Computing and Information.

## **Subject Covered in the Series**

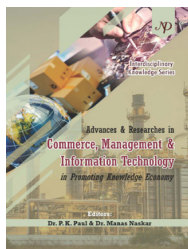
There are many subjects covered within Interdisciplinary Knowledge Series (IKS) such as—

- Interdisciplinary Applied Arts, Humanities & Digital Humanities
- Interdisciplinary, Applied & Basic Sciences
- Interdisciplinary and Multidisciplinary Management Sciences & Commerce

## **Series Principal Editor**

The series is being Founded and Started by Eminent Information Scientist and Young-dynamic Educationalist Dr. P. K. Paul, *Ph.D. (IEST Shibpur), PDFC (Environmental Informatics)*.

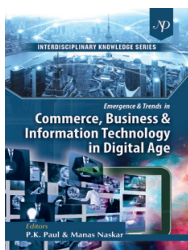
## Few Recent Books in this Series



**Advances & Researches in Commerce, Management & Information Technology in Promoting Knowledge Economy**

ISBN: 9789392513725

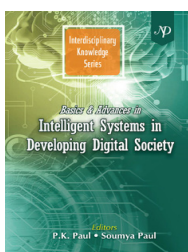
Author(s) / Editor(s):  
P. K. Paul and Manas Naskar



**Emergence & Trends in Commerce, Business & Information Technology in Digital Age**

ISBN: 9789392513602

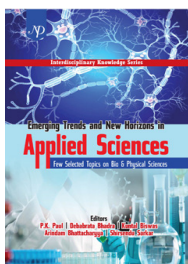
Author(s) / Editor(s):  
P. K. Paul and Manas Naskar



**Basics & Advances in Intelligent Systems in Developing Digital Society**

ISBN: 9789392513602

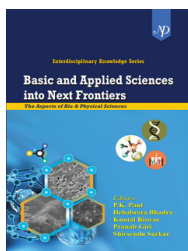
Author(s) / Editor(s):  
P. K. Paul and Soumya Paul



**Emerging Trends and New Horizons in Applied Sciences: Few Selected Topics on Bio & Physical Sciences**

ISBN: 9788195075331

Author(s) / Editor(s):  
P. K. Paul, Debabrata Bhadra, Kuntal Biswas, Arindam Bhattacharyya and Shirsendu Sarkar



**Basic and Applied Sciences into Next Frontiers The Aspects of Bio & Physical Sciences**

ISBN: 9788194899303

Author(s) / Editor(s):  
P. K. Paul, Debabrata Bhadra, Kuntal Biswas, Pranab Giri and Shirsendu Sarkar





# About the Series Editor

## (Interdisciplinary Knowledge Series)



**Dr. P. K. Paul**, *D.Sc. (IST)- UA Mexico, PhD (IST), PDFC (EIS), FAU (Mexico), FBSS, FLARA*

*Executive Director (MCIS Program) & Asst. Professor (IST),  
Dept. of Computer & Information Science and Information Scientist (Offg.)*

**Raiganj University** (A State Univ.), West Bengal, India

*Hony. Secretary, International Centre for Interdisciplinary Studies (ICIS)*

**Chaitanya Deemed University**, Hyderabad, India

*Chief Advisor, (Innovative Program & Research Planning)*

**Srinivas University**, Mangalore, India

*Honorary Professor;*

**Logos University Int.**, Louisiana, USA

**Dr. P. K. Paul** holds prestigious and unique D.Sc. in Information Science and Technology (IST) degree from Azteca University, Mexico under Dr. Agustin Yoh International Postdoctoral Fellowship (DAYIPF) Program. He also holds Ph.D. in IST from IEST Shibpur, Post-Doctoral Fellow Certificate (PDFC) Program in Environmental Informatics. He has to his credit unique and research based degrees viz. M.Tech. (by Research), MS (by Research) in addition to M.Sc. (Double). He is currently working as Asst. Professor (IST) & Executive Director (MCIS Program), at Dept. of Computer & Information Sciences, and additionally Information Scientist (Offg.) Position at Raiganj University, West Bengal, India. He is Chief Editor of IJASE, New Delhi, India and Chief Editor, IRA International Journal of Management and Social Sciences, Chief Editor of IJISC, New Delhi, India. Dr. Paul holds 250+ Authored Indexed, Refereed Papers, Articles, and 100+ Book Chapters to his credit and about 30 National and International Authored and Edited Books. He is also involved as Editorial Board Member of more than 130 National and International Journals in diverse fields. He has completed many Invited Talk viz. SRM University, Sikkim University, VIT University, Srinivas University, Mangalore University, TCG Digital, CloudNet India. He has the track record of associating more than 200 International Conferences as TPC, Advisory Committee, Speakers and in Organizing Body. Dr. Paul has delivered several invited talks in leading and reputed academic and industrial establishments like SRM University, Sikkim University, VIT University, Srinivas University, Mangalore University, Assam Central University, Chaitanya Deemed to be University, TCG Digital, and CloudNet India. He has received many Awards such as Best Researcher Award

in Information Sciences (from IARA, Trichy), David Clark Blair Young Scientist Award in Computer & Information Science (from BSS, India), International Young Scientist Award (from ISROSET) for the contribution in Health Informatics, Citation Award (from SSCET/Sri Sai University), International Social Science and Digital Society Think Tank Award-2020, International Outstanding Research & Scientific Events Organizer-2021, Dr. Agustin Yoh International Postdoctoral Fellow Award and Fellow of Azteca University (FAU) in 2021, etc.

## About the Book Editors



**Dr. Prasenjit Biswas, Ph.D.**

*Associate Professor & In-Charge Department of History  
Department of Education (Additionally In-Charge),  
Bhairab Ganguly College, Kolkata, WB, India*

**Dr. Prasenjit Biswas** is Associate Professor and In-Charge of the Department of History and additionally In-Charge of the Department of Education, Bhairab Ganguly College, affiliated to the West Bengal State University. He is also teaching at the Rabindra Bharati University, Kolkata as a guest faculty. He got his Master's degree (ranked 1st class 3rd) in Modern History from the Jadavpur University. He earned his Ph.D. in History from the University of Calcutta. His research interests lie in social mobility, caste dynamics and politics of colonial & post-colonial India. He has more than 10 publications in different journals and books. He has written many study materials for PG courses (distance education) in Rabindra Bharati University & Kalyani University.



**Shri. Shirsendu Sarkar, M.Sc.**  
*Assistant Professor & HOD*  
*Dept. Physics, Bhairab Ganguly College,*  
*Belgharia, Kolkata-56, India*

**Shri. Shirsendu Sarkar** has obtained his M.Sc degree in Physics from Indian Institute of Technology Madras in the year of 2011. Currently, He is working as Assistant Professor in the Dept. of Physics in Bhairab Ganguly College (NAAC Accredited Grade ‘A+’ College) and continuing his research work in West Bengal State University, Barasat, India. He has been associated with the Department of Applied Optics and Photonics, University of Calcutta and Dept. of Oncology, Medical College, Kolkata for Bio-Medical research purposes. He is life member of Indian Physical Society, Optical Society Of India (OSI), SPIE (The International Society for Optics and Photonics), Optical Society of America (OSA). He knows very well of handling different optical instruments and interfacing different softwares. His interests of research are Bio-medical Optics, Laser, Optics, Photonics, Adaptive optics, Nonlinear optics. He has been appreciated by Optical Society of India to the contribution towards the compendium of International year of light (IYL) activities in India, 2015.



**Dr. Subharthi Pal, Ph.D.**  
*Assistant Professor & In-Charge of Zoology*  
*Bhairab Ganguly College,*  
*Belgharia, Kolkata-56*

**Dr. Subharthi Pal** is currently serving as an Assistant Professor and In – Charge of the Department of Zoology and additionally as In – Charge of the Department of Environmental Studies, Bhairab Ganguly College, affiliated to the West Bengal State University. He is originally from Berhampore, Murshidabad, West Bengal. He completed his bachelors (Ranked 1<sup>st</sup> Class 3<sup>rd</sup>) from Presidency College, Kolkata and later completed his Masters (Ranked 1<sup>st</sup> class 4<sup>th</sup>) from the University of Calcutta. He earned his Ph.D. in Fish Immunology from the Aquatic Bio-resource Research Laboratory, Ballygunge Science College under the able guidance of Prof. Sumit Homechaudhuri in 2018. He has more than 16 publications in different national and international journals and 3 book chapters to his credit till date. He was awarded the Young Scientist Award in the International Research Awards on Science, Technology and Management, held on 14 & 15 May 2022, Chennai, India, organized by VDGGOOD Professional Association, India. He was also awarded the Young Faculty Award 2023 by the International Benevolent Research Foundation, Kolkata at the Higher Education and Research Summit, held on 05 October, 2023. He has attended and presented his research work in more than 50 seminars, conferences, and workshops both at the national and international level. His current research interest includes understanding the cellular and molecular aspects of nonspecific and specific immunity in various fish models against viral and microbial pathogens; Immunomodulation in fish by usage of pro-biotics and other phytochemicals and/or immunostimulants; application of Phage Therapy as alternate disease control measure in aquaculture etc. He has life memberships in various scientific bodies like the Indian Science Congress Association, India; the Zoological Society, Kolkata etc.



# Contents

	<i>Preface</i>	v
	<i>About the Editors</i>	ix
1.	<b>Voices Unheard: Media's Path to Equality, Diversity and Inclusivity</b> Baishakhi Nag	1
2.	<b>Impact of Loneliness among Elderly Women</b> Reena* and Komal	15
3.	<b>Reimagining Gender and Sexuality in 'Sherlock': Watson, Adler, and Evolution</b> Sharanya Bhattacharyya	23
4.	<b>Terrorism: An International Problem</b> Aftabuddin Ahammad	45
5.	<b>Well-Being of Women Traders in Vegetable Product Marketing</b> Susmita Bhattacharjee	55
6.	<b>Analysis of Basin Geomorphometry: A Case Study in Ajay River Basin</b> Jeet Das	67
7.	<b>The SWOC Factors Influencing Cryptocurrency Wallets: A Comprehensive Study of Their Strengths, Weaknesses, Opportunities and Challenges</b> Namreen Asif VA	87
8.	<b>Cartography of Displacement and Immigrant Experience in Michael Ondaatje's Novels</b> Janki Singh	97
9.	<b>Revisiting the 19th Century Europe as the Real Mother of Our Present Day</b> Saptarshi Chakraborty	107

10.	<b>A Raisin in the Sun: Conflict and Tension in Identity-Reading from Environmental Justice</b> Krishna Chandra Malik	117
11.	<b>Disorders of Identity in Post-independent Indian Fiction: A Study of Tabish Khair's <i>Night of Happiness</i></b> Laki Molla	123
12.	<b>Revisiting Bengal Muslim Politics (1945-1947) through the Lens of the '<i>Millat</i>'</b> Sk. Makhleswar Rahaman	131
13.	<b>Caste &amp; Electoral Politics in West Bengal</b> Prasenjit Biswas	143
14.	<b>Exploring "Feminine Mystique" through Digital Landscape of India – A Critical Study of Nisha Susan's <i>The Women who Forgot to Invent Facebook and other Stories</i> (Selected Stories)</b> Payal Saha	151
15.	<b>Research Trends in International Journal of Social Research Methodology: A Bibliometric Study</b> Shibananda Mridha	159
16.	<b>Making the Durga Idols More Environmental-Friendly</b> Santanu Sanpal and Atanu Ghosh	171
17.	<b>Roles of Various Transcription Factors, Signaling Proteins and MicroRNAs in the Development of Heart in Eutherian Mammals</b> Saurav Shome	177
18.	<b>Employing In-Silico Methodology to Identify Potent Phytoconstituent from <i>Fumaria Vaillantii</i> for D2 Receptor Antagonism – A New Way towards Schizophrenia Treatment</b> Souvik Chakraborty	187
19.	<b>Sustainable Remote Work Revolution: Exploring Professional Transition and Skill Adaptation in the Post COVID-19 Era</b> Sunita Sarker	197



<b>20.</b>	<b>Extended Analytics in Research Methodology across Various Verticals: A Review</b>	<b>205</b>
	Pramiti Roy, Subir Gupta, Tridib Chatterjee, Kallal Banerjee and Somsubhra Gupta	
<b>21.</b>	<b>A Generic Platform-Independent Research Methodology Framework Converging to Product Commercialization</b>	<b>221</b>
	Pramiti Roy, Subir Gupta, Tridib Chatterjee, Kallal Banerjee and Somsubhra Gupta	
<b>22.</b>	<b>Illustrative Accreditation Research Methodology with Defined Rubric</b>	<b>231</b>
	Madhumita Mukherjee and Somsubhra Gupta	
<b>23.</b>	<b>Hidden Threat to Humanity: Nipah Virus</b>	<b>243</b>
	Sanaya Mukherjee, S Sharda and Chitra Dutta	
<b>24.</b>	<b>Water Quality Assessment of the River Ganges along Its Course in and around the Kolkata City: An Approach towards the Pollution Prevention</b>	<b>253</b>
	Deeya Ghosh Dastidar and Anulipi Aich	
<b>25.</b>	<b>Exploring the Effects of Adoption of IFRS on Earnings Management a Comparative Study on Select Indian and UK Pharmaceutical Companies</b>	<b>265</b>
	Vijay Anand Sah	
<b>•</b>	<b>List of Reviewers</b>	<b>273</b>