



THE COCHIN COLLEGE

Koovapadam, Kochi-2

Affiliated To Mahatma Gandhi University

Re-accredited by NAAC With B+ Grade



Fourth Cycle
NAAC Accreditation 2024

Criterion 3 Research, Innovations and Extension

3.3 - Research Publications and Awards

Metric No. 3.3.2

Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

Copy of Cover Page/ Content Page

Submitted to



National Assessment and Accreditation Council



THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

Contents

| | | |
|---|---|----|
| 1 | Link to books chapters in edited volumes / books edited and papers published in national/ international conference proceedings published during the last five years (2019-2024) | 2 |
| 2 | Cover pages of the books | 9 |
| 3 | Cover pages of the books | 13 |
| 4 | Cover pages of the books | 23 |
| 5 | Cover pages of the books | 43 |
| 6 | Cover pages of the books | 47 |





THE COCHIN COLLEGE

KOCHI - 682 002

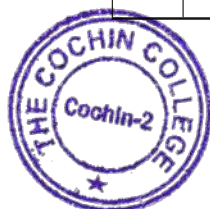
(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in

1 Link to books chapters in edited volumes / books edited and papers published in national/ international conference proceedings published during the last five years (2019-2024)

| Sl No | Author | Title | Year | ISBN | Publisher | Link to book chapters |
|-------|------------------------------|--|---------|--------------------|-------------------------------------|------------------------------|
| 1 | Dr Manjusha M V | Bismuth Ferrite/Barium Titanate (BiFeO ₃ /BaTiO ₃) Thick Films for High Energy Applications: A Review | 2023-24 | 978-3-030-76481-4 | Apple Academic Press | Link to book |
| 2 | Dr Manjusha M V | A Review of Green Synthesis and Characterization Techniques for Bismuth Ferrite Nanoparticles and Their Applications | 2023-24 | 978-3-030-76481-4 | Apple Academic Press | Link to book |
| 3 | Dr Manjusha M V | A Comprehensive Overview of Magnetic Energy Storage Applications of Barium Titanate Nanoparticles: A Review | 2023-24 | 978-1-77491-785-5. | Apple Academic Press | Link to book |
| 4 | Dr. Mary Varghese Kundukulam | The Relationship between Selected Psychological Variables and Playing Ability among Women Football Players | 2023-24 | 978-3-96492-228-1 | "Weser Books, Germany" | Link to book |
| 5 | Dr Rajani B Bhat | Income Tax Theory, Law & Practice | 2023-24 | 975-93-5763-563-7 | Tamil Nadu Open University | Link to book |
| 6 | Reethi P | Shodhak: A Journal of Historical Research | 2022-23 | 978-93-90870-25-7 | Shodak Publications | Link to book |
| 7 | Dr. Kavitha V. Rajan | Swachandawadi Sahitya - Ek Purnarpad | 2022-23 | 978-93-91335-08-3 | Vidhya Prakash | Link to book |
| 8 | Dr. Anu. L | Covid 19 and the Indian economy | 2022-23 | 978-81-7708-540-2 | New Century Publications, New Delhi | Link to book |
| 9 | Dr. Anu. L | Reverberations in Indian Economy Post Covid =19 | 2022-23 | 978-81-954429-1-1 | LEKHIT Publications | Link to book |
| 10 | Dr. Mary Varghese Kundukulam | Aerobic Training for Players | 2022-23 | 978-93-94521-01-8 | "Manojvm Publishing House, India" | Link to book |
| 11 | Dr Rajani B Bhat | Organisational Behaviour | 2022-23 | 978-93-5706-178-0 | Tamil Nadu Open University | Link to book |





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

| Sl No | Author | Title | Year | ISBN | Publisher | Link to book chapters |
|-------|------------------|--|---------|-------------------|--|------------------------------|
| 12 | Reethi P | "In-Between spaces. Culture and Territoriality in Literature, Art and Cinema" | 2021-22 | 978-93-90870-25-7 | Anand Publication House | Link to book |
| 13 | Dr.Smitha N R | A study on the effect of plant derived extracts on the oviposition of Aedes aegyptii | 2021-22 | 978-81-952529-1-6 | Thanuj International Publishers | Link to book |
| 14 | Dr.M.Geetha | RECENT TRENDS FROM PAST TRENDS COMMERCE MANAGEMENT & ECONOMICS | 2021-22 | 978-93-946891-2-1 | Kolkatta Press Club | Link to book |
| 15 | Jeena Jayan | Professionalism in library management | 2021-22 | 978-93-5461-378-4 | "Daya publishing house, A division of astral international pvt ltd, new Delhi -110002" | Link to book |
| 16 | Rekha P G | Personal Investment and Behavioural Finance | 2020-21 | 978-96-81888-40-7 | Prakash Publications and Printers | Link to book |
| 17 | Dr. Anu. L | Transition from traditional teaching metholodolgy to online teaching | 2020-21 | 978-81-946375-3-0 | Empyrean Publishing House | Link to book |
| 18 | Dr. Anu. L | Perspective on Business Management and economics | 2020-21 | 978-81-947738-1-8 | Archers& Elevators Publishing House, Bangalore | Link to book |
| 19 | Dr. Anu. L | HR: CHALLENGES AND WAY AHEAD AMIDST COVID-19 PANDEMIC | 2020-21 | 978-81-947019-4-1 | ESN Publications | Link to book |
| 20 | Dr. Anu. L | Advertising | 2020-21 | 978-93-89488-31-9 | Wizcraft Publications | Link to book |
| 21 | Dr. Anu. L | Business Management Practices -Emerging Trends | 2020-21 | 978-93-88805-95-7 | Archers& Elevators Publishing House, Bangalore | Link to book |
| 22 | Dr Rajani B Bhat | Derivatives and Risk Management | 2020-21 | KLYDEL 0000169 | Kalyani Publishers | Link to book |





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

| Sl No | Author | Title | Year | ISBN | Publisher | Link to book chapters |
|-------|------------------------|---|-----------|-------------------|------------------------------|------------------------------|
| 23 | Rekha.p.g | Organizational Behaviour | 2019-20 | 978-935359-782-5 | Kalyani Publishers | Link to book |
| 24 | Reethi P | Travel Brochures as Constructs and Commodities | 2019-20 | 2582-3574 | IJELLH | Link to book |
| 25 | Dr. Kochuthresia Jose | Personal Investment and Behavioural Finance | 2019-20 | 978-93-81888-40-7 | Prakash Publications | Link to book |
| 26 | Dr. Anu. L | Indian Financial Institutions and Markets | 2019-20 | 978-93-89657-85-2 | Bharati Publications | Link to book |
| 27 | Dr. Anu. L | Endurance of Indian Economy Amidst the Gobar Pandemic | 2019-20 | 978-93-89234-88-6 | NB Publications | Link to book |
| 28 | Dr. Anu. L | Risk and Investment Management | 2019-20 | 978-81-947458-4-6 | The native Tribe Publisher | Link to book |
| 29 | Dr Vineeth Kumar T V | Health and Nutrition | 2019-20 | 978-81-939629-4-7 | Zoological Society of Kerala | Link to book |
| 30 | Dr.M.Geetha | Capital Market and Investment Management | 2019-20 | 978-93-5359-330-8 | Kalyani Publisher | Link to book |
| 31 | Dr Smitha NR | Health and Nutrition | 2019-20 | 978-81-939629-4-7 | Zoological Society of Kerala | Link to book |
| 32 | Dr Manju V Subramanian | Health and Nutrition | 2019-20 | 978-81-939629-4-7 | Zoological Society of Kerala | Link to book |
| 33 | Dr Rajani B Bhat | Reverberations in Indian Economy Post Covid 19 | 2019-2020 | 978-81954429-1-1 | Lekhit Publications | Link to book |
| 34 | Dr Rajani B Bhat | Organisational Behaviour | 2023 | 978-93-570617-8-0 | TNOU | Link to book |
| 35 | Dr.Anu.L | Covid 19:Shocks to the Education sector and the way forward | 2023 | 978-81-7708-540-2 | New Century Publication | Link to book |
| 36 | Dr.Anu.L | .Rethinking HR:A post pandemic review | 2023 | . | Lekhit Publication | Link to book |
| 37 | Saumya Ashraf | Behavioral Finance: The Role of Psychological Factors in Financial Decisions | 2023 | 2319-3638 | Lekhit Publication | Link to book |
| 38 | Reethi P | "In Between Spaces: Culture and Territoriality in Literature, Art and Cinema" | 2022 | 978-93-90870-25-7 | Akhand Publishing House | Link to book |
| 39 | Dr. Kavitha V Rajan | Maitreyi Pushpa: Srijan-karm ki vikas yathra | 2022 | 978-81-89187-95-8 | Vinay prakashan | Link to book |





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in

| Sl No | Author | Title | Year | ISBN | Publisher | Link to book chapters |
|-------|------------------------|---|------|-------------------|---|------------------------------|
| 40 | Dr. Kavitha V Rajan | Sahityik Kalajayi Rachnakar Premchand | 2022 | 978-93-90265 | Aman prakashan | Link to book |
| 41 | Dr. Anu. L | Battling the Prejudice | 2022 | 978-93-90981-29-8 | Indus Scrolls Press, New Delhi | Link to book |
| 42 | Dr Rajani B Bhat | Goods and Services Tax | 2021 | 978-81-82860-4-2 | T R publications | Link to book |
| 43 | Dr Rajani B Bat | Indirect Taxation | 2021 | 978-81-82860-4-3 | T R Publications | Link to book |
| 44 | Dr Rajani B Bhat | FUNDAMENTALS OF INDIRECT TAXATION Including GST and Customs Act | 2021 | 978-81-82860-4-4 | T R Publications | Link to book |
| 45 | Dr Rajani B Bhat | IMPACT OF COVID-19 ON THE BUSINESS SECTOR | 2021 | 978-81-949524-1-1 | "Non Olympic Times Publisher Office: 42G-Mettuthottam, C" | Link to book |
| 46 | Dr Manju V Subramanian | A Study on the effect of plant derived extracts on the Oviposition of Aedes aegypti. | 2021 | 978-81-952529-1-6 | " Thanuj International Publishers, Tamil Nadu, India " | Link to book |
| 47 | Dr.Smitha N R | Recent Advancements and Research in Biological Sciences | 2021 | 978-81-952529-1-6 | "Thanuj International Publishers, Tamil Nadu,India" | Link to book |
| 48 | Dr.Kochuthresia Jose | Total Quality Management of Professional Educational Institutions with special reference to B-Schools in Kerala | 2021 | 2319-3638 | "The Cochin College, Kochi-02" | Link to book |
| 49 | Dr. Anu. L | Advertising | 2021 | 978-93-89488-31-9 | Wizcraft Publication | Link to book |
| 50 | Dr. Anu. L | Perspectives on Business Management and Economics | 2021 | 978-81-947738-1-8 | Archers & Elevators Publishing House | Link to book |
| 51 | Dr. Anu. L | Risk and investment Management | 2021 | 978-81-947458-4-6 | TNT the Native Tribe publishet | Link to book |
| 52 | Dr. Anu. L | Multidisciplinary subjects for Research | 2021 | 978-1-71650-380-1 | Redshine Publisher | Link to book |





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

| Sl No | Author | Title | Year | ISBN | Publisher | Link to book chapters |
|-------|-----------------------|---|------|-------------------|---|------------------------------|
| 53 | Dr. KAVITHA V RAJAN | Maitreyi Pushpa:Srujan karm ki vikaas yatra | 2021 | 978-81-89178-95-8 | Vinay Prakashan Kanpur | Link to book |
| 54 | Dr. Poornima C.C. | Mayyazhikkathakal | 2021 | 978-93-899421-8-7 | Naipunya Institute of Management and Information Technology | Link to book |
| 55 | Sarah Santhosh | ”””Nature and Culture: A Journey Into the Wild in Sean Penn’s film ’Into the Wild’.” | 2021 | 979-888521936-5 | Edit Academic | Link to book |
| 56 | Reethi P | Himalayan dreams-Travel Blogs as Cultural Constructs in Post- Truth Era | 2020 | 2582-4406 | IJELLH | Link to book |
| 57 | Jayesh kuriakose | HEALTH BENEFITS OF SECONDARY PHYTOCOMPOUNDS FROM PLANT AND MARINE SOURCES | 2020 | 978-17-718889-8-1 | Apple Academic Press Inc. | Link to book |
| 58 | Dr. Anu. L | Indian financial institutions and Markets | 2020 | 978-93-89657-85-2 | Bharti Publication | Link to book |
| 59 | Dr. Anu. L | Endurance of Indian Economy | 2020 | 978-93-89234-88-6 | NB publications | Link to book |
| 60 | Dr. Anu. L | Transition from Traditional Teaching methodology to online teaching | 2020 | 978-81-946375-3-0 | Empyrean Publishing House | Link to book |
| 61 | Dr. Anu. L | ”New Horizons in Commerce, IT &Social Science ” | 2020 | 978-81-944303-5-3 | National Press Associates | Link to book |
| 62 | Dr. Anu. L | Emerging Trends in Forensic Accounting | 2020 | 978-93-88805-95-7 | Archers and Elevators Publishing House | Link to book |
| 63 | Dr. Kochuthresia Jose | Consumer Behaviour | 2019 | 978-93-894770-7-8 | Kalyani Publications | Link to book |
| 64 | Dr Rajani B Bhat | ”Impact of Derivatives on Price Volatility in Indian Stock Market, Financial Markets and Operations and goods and Services Tax” | 2019 | 978-93-5299-513-4 | Mayas Publications | Link to book |





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

| Sl No | Author | Title | Year | ISBN | Publisher | Link to book chapters |
|-------|------------------------------|--|---------|---------------------|--|------------------------------|
| 65 | Dr Rajani B Bhat | Contemporary Reflections in Applied Finance | 2019 | 98-93-856-51-9 | Mayas publications | Link to book |
| 66 | Dr Vineeth Kumar T V | Ecophysiology of man | 2019 | 978-81-936818-3-1 | Zoological Society of Kerala | Link to book |
| 67 | Dr. Sindhu K | Dynamics of Rural Urban Transition and Performance of Local Governments | 2019 | Nil | Local Self Government Department, kerala | Link to book |
| 68 | Dr. Poornima C.C. | French Adhiniveshavum Mayyazhiyude Swathwa Roopeekaranavum | 2019 | 978-93-85894-61-9 | | Link to book |
| 69 | Dr.Reshimon P. R. | Marxism and Literature | 2019 | 978-93-87709-01-0 | Turn Books, kottayam | Link to book |
| 70 | Dr.Kavitha V.Rajan | Samakaleen Hindi Sahithy ke Vibhin drishtikon | 2019 | 978-93-84478-69-9 | Roly Publications | Link to book |
| 71 | Dr Smitha NR | Ecophysiology of man | 2019 | 978-81-93681831 | Zoological Society of Kerala | Link to book |
| 72 | Dr. Zafna Rasheed | Electrochemical sensing of Ponceau 6R based on poly (para amino benzene sulphonic acid) modified glassy carbon electrode | 2019 | | CUSAT, Kochi | Link to book |
| 73 | Dr Rajani B Bhat | International Conference on Impact of Digital payment system in India Economy | 2023-24 | 13978-93-5577-890-1 | Chaulatha Publications | Link to book |
| 74 | Vijeesh p | National Laser Symposium | 2023-24 | | | Link to book |
| 75 | Dr Manjusha M V | INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN PHYSICAL SCIENCE (ICRAPS-2023) | 2023-24 | 978-81-973274-8-3 | Bharatha Mata College, Kochi | Link to book |
| 76 | Dr. Mary Varghese Kundukulam | 6th International Artemis Congress on Health and Sport Sciences | 2023-24 | 978-625-6879-44-7 | BZT TURAN PUBLISHING HOUSE | Link to book |
| 77 | Dr.Smitha N R | Life Science Research and Intellectual Property Rights | 2022-23 | 978-93-5768-350-0 | ST Joseph s College for women, Alappuzha | Link to book |





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

| Sl No | Author | Title | Year | ISBN | Publisher | Link to book chapters |
|-------|------------------------------|---|---------|-------------------|-------------------------------|------------------------------|
| 78 | Dr. Mary Varghese Kundukulam | "6TH INTERNATIONAL CONGRESS ON LIFE, SOCIAL, AND HEALTH SCIENCES IN A CHANGING WORLD" | 2022-23 | 978-605-71461-9-9 | BZT ACADEMY PUBLISHING HOUSE | Link to book |
| 79 | Dr. Mary Varghese Kundukulam | "2nd International Azerbaijan Congress on Life, Social, Health, and Art Sciences" | 2022-23 | 978-605-73228-1-4 | BZT ACADEMY PUBLISHING HOUSE | Link to book |
| 80 | MANJUSHA M V | INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS FOR SUSTAINABILITY (ICAMS 2023) | 2022-23 | | University of Calicut, Kerala | Link to book |
| 81 | Dr. Jose Mathew | Infinitely degenerate exact Ricci-flat solutions in $f(R)$ gravity | 2022-23 | 978-981-12-6976-9 | World scientific | Link to book |





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

2 Cover pages of the books

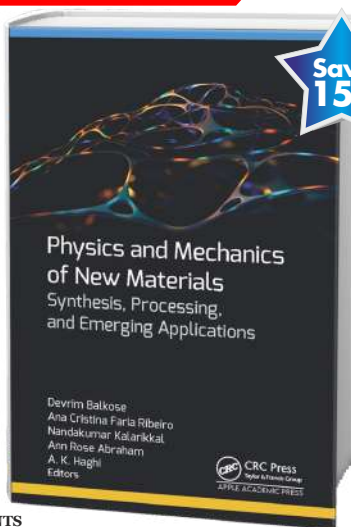
AAP

New Book Announcement

Physics and Mechanics of New Materials Synthesis, Processing, and Emerging Applications

Available
January 2024

Save
15%



Editors: Devrim Balkose, PhD

Professor, Chemical Engineering, Izmir Institute of Technology, Izmir, Turkey

Ana Cristina Faria Ribeiro, PhD

Researcher, Department of Chemistry, University of Coimbra, Portugal

Nandakumar Kalarikkal, PhD

Senior Professor, School of Pure and Applied Physics, Mahatma Gandhi University and School of Nanoscience and Nanotechnology; Director, International and Inter University Center for Nanoscience and Nanotechnology, Mahatma Gandhi University, India

Ann Rose Abraham, PhD

Assistant Professor, Sacred Heart College (Autonomous), Thevara, Kochi, Kerala, India

A. K. Haghi, PhD

Professor Emeritus of Engineering Sciences and Senior Material Engineering Consultant, UK

This new volume covers new advances in materials science and engineering technology, focusing on practical rather than theoretical aspects that are useful for the design, fabrication, testing, and industrial application of advanced materials and structures.

The first section of this book delivers a comprehensive overview of modern ferrites with special attention to their structure, types, and properties. It presents a comprehensive survey on ferrite materials with discussions of selected applications of modern ferrite materials in emerging technologies. In the second section, the impact of technological change upon the application of selected materials and energy resources are presented in detail. This includes discussions on 2D nanomaterials, bismuth ferrite, and barium titanate and how these can be put to practical use. In the last section of this volume, case studies in thermophysics and applied mechanics for engineering technology are presented that provide an examination of the various physical, chemical, and material properties of a range of modern materials.

This research-oriented book, **Physics and Mechanics of New Materials: Synthesis, Processing, and Emerging Applications**, is an essential reference source intended for scientific researchers, faculty, and postgraduate and senior students who specialize in the field of materials science and applied mechanics of materials.

AAP APPLE
ACADEMIC
PRESS

US office: 1265 Goldenrod Circle NE,
Palm Bay, FL 32909
Tel: 732-998-5302
Email: info@appleacademicpress.com

760 Laurentian DR, Unit 19
Burlington on L7N 0A4
CANADA
Email: info@AppleAcademicPress.com

CONTENTS

Preface

SECTION 1: MODERN FERRITES: EMERGING TECHNOLOGIES AND APPLICATIONS

1. Synthesis and Mechanism of Functionalized Ferrite Nanoparticles for Water Splitting Applications
Merin Mary Sebastian, Fadeela Chundekatt Ummer, and Nandakumar Kalarikkal
2. Biomedical Applications of Magnetic Nanomaterials/Ferrites
Mridula Sreedharan, Jyothish Kumar J. S., Anjali G., Nebu G. Thomas, Shilpa Joy, Nandakumar Kalarikkal, and Sabu Thomas
3. Study on Magnetic and Magnetoelectric Properties of BiFeO₃ Multiferroic Systems
Jincemon Cyriac, Sunny Mathew, Saji Augustine, Saritha K Jose, Archana L. S., Sashank S., Jisty Ann Jiji, and Nandakumar Kalarikkal
4. Ferrites: Physics and Applications
Jincemon Cyriac, Sunny Mathew, Tina Sebastian, Saji Augustine, Amal Ajith Cherian, L. R. Sriramachandru, and Nandakumar Kalarikkal

SECTION 2: ENERGY MATERIALS: FUNDAMENTAL PHYSICS AND LATEST ADVANCES IN RELEVANT TECHNOLOGY

5. A Rudimentary Analysis of Room Temperature Multiferroic: Bismuth Ferrite
Vidhya Sivan, Kavya Ravindran, Navya S. L., and Pius Augustine
6. Electrochemical Energy Storage in 2D Nanomaterials: Present Status and Future Challenges
Gopal Sanyal, Ravi Kumar Trivedi, and Brahmananda Chakraborty
7. Two Dimensional (2D) Materials-Based Nanostructured Hybrid Composite: A Newer Paradigm for Energy Application
Nidhi Sharma, Neetu Talreja, Divya Chauhan, and Mohammad Ashfaq
8. Bismuth Ferrite/Barium Titanate (BiFeO₃/BaTiO₃) Thick Films for High Energy Applications: A Review
Dhanya Raj, Venkidesh T. V., and Manjusha M. V.

www.appleacademicpress.com

◀ Contents continued on side 2 ▶





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

AAP

New Book Announcement

Available
October 2024

Micro-and Nanoscale Technologies in Drug Delivery

A Contemporary Chemical Approach

Editors: Ana Cristina Faria Ribeiro, PhD
Researcher, Department of Chemistry, University of Coimbra, Portugal

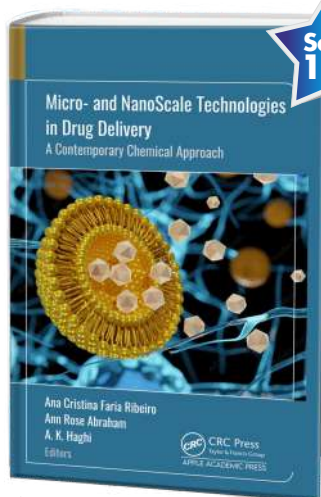
Ann Rose Abraham, PhD
Assistant Professor, Department of Physics, Sacred Heart College (Autonomous), Thevara, Kochi, Kerala, India

A. K. Haghi, PhD
Professor Emeritus of Engineering Sciences, Member of Research Chemistry Centre, Coimbra, Portugal, Senior Material Engineering Consultant (UK)

Drug delivery technologies include new approaches to control the behavior of drugs in the body and improve treatment of diseases by toxicity reduction. This new book covers recent advancements in the development of controlled drug delivery systems, offering novel perspectives, therapeutics, and strategies for the development of drug delivery, keeping the drug molecule as the central component.

The book discusses current theoretical and practical aspects of drug delivery for the discovery and development of novel therapeutics for health problems. Explaining the necessary features essential for pharmacological activity, it takes an interdisciplinary approach by including a unique combination of pharmacy, chemistry, and medicine along with clinical aspects. This book details several important drug delivery systems and their chemical structures, and pharmacological properties against various human diseases. Topics include the functionalized peptide-based nanoformulations, drug-delivery systems using hydrogel nanocomposite systems, protein-based nanocarriers, aqueous electrolyte solutions in clinical and pharmaceutical research, and more.

Providing a unique compilation of data, insightful case studies, and review of existing literature in the area, the book promotes innovation in drug delivery research, exploring the limitations of existing drugs and their improvement in cancer.



CONTENTS

Preface

1. Effects of Drug-Loaded Exosomes with a Peptide Linker on Immunogenic Cell Death of Cancer Cells
Akhil Raj and Seung Rim Hwang
2. Drug-Delivery Systems Using Hydrogel Nanocomposite Systems: Physico-Chemical Characterization
Prathyusha
3. Protein-Based Nanocarriers for Drug Delivery Applications
Deepa Thomas, Eapen Philip, Shijamol S., and Reshmy R.
3. Cancer Therapy and Treatment Using Functionalized Peptide-Based Nanoformulations: An Environmentally Friendly Method of Providing Health Care
Teena Merlin and Smitha Vijayan
5. Nanosystem Based on a Functionalized Protein for Safer Cancer Treatment
Abishri K. R., Puli Mohith Vishnuvardhan Reddy, and Krupa S.
6. Hydrogel-Assisted Neuroregeneration Techniques for Treating Brain Injuries: A Cutting-Edge Review
Roopashree R. and Bhaskar Gaonkar
7. Effective Mucoadhesive Custom Biopolymer-Based Nanoparticles for Improved Probiotic Oral Availability: Current Developments and Future Prospects
Arpita Chakraborty, C. Krishna Meera Menon, Shyamji Verma, Roopashree R., and Bhaskar Gaonkar
8. Current Developments and the Future of Biopolymers for Antitumor Implantable Drug Delivery Systems
Reshmasoman and R. Harikumar Nair
9. Self Assembled Peptide Based Nanomaterials for Targeted Drug Delivery
Akhilraj Pillai, Athira Pillai, Shashanka. K. Prasad, and Namitha Vijay
10. A Review of Green Synthesis and Characterization Techniques for Bismuth Ferrite Nanoparticles and Their Applications
Venkidesh T. V. and Manjusha M. V.

AAP APPLE ACADEMIC PRESS

US office:
1265 Goldenrod Circle NE,
Palm Bay, FL 32905 USA
Email: info@appleacademicpress.com

Canadian Office:
760 Laurentian Drive, Unit 19
Burlington on L7N 0A4 Canada
info@AppleAcademicPress.com

 www.appleacademicpress.com

◀ Contents continued on side 2 ▶





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechochincollege.edu.in

email: email@thechochincollege.edu.in

AAP

New Book Announcement

Available
September 2024

Save
15%

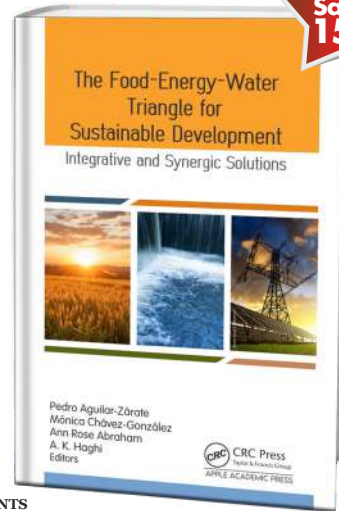
The Food-Energy-Water Triangle for Sustainable Development Integrative and Synergic Solutions

Editors: Pedro Aguilar-Zárate, PhD
Professor, National Technological Institute of Mexico,
Technological Institute of Ciudad Valles, Mexico

Mónica Chávez-González, PhD
Professor, School of Chemistry,
Universidad Autónoma de Coahuila, Mexico

Ann Rose Abraham, PhD
Assistant Professor, Sacred Heart College (Autonomous),
Thevara, Kochi, Kerala, India

A. K. Haghi, PhD
Research Associate, Department of Chemistry,
University of Coimbra, Portugal



CONTENTS

Preface

1. The Sustainable Use of Cactaceae as Functional Foods: The Hypoglycemic Effect
Abigail Reyes, Christian Sánchez, Brenda Alvarado, Ariel Vazquez, and Pedro Aguilar-Zarate
2. Microbial Technology to Produce Sustainable Food Bioproducts: Insights into Submerged Fermentation
Itza Nallely Cordero-Soto, María Gorety Contreras-Hernández, Silvia Marina González-Herrera, Alfredo De Jesús Martínez-Roldán, and Olga Miriam Rutiaga-Quñones
3. Pomace from Pome Fruits as a Source of Functional Foods and Extracts with Nutraceutical Potential
Salas-Ramírez, Carlos Alonso, González-Laredo, Rubén Francisco, Rocha-Guzmán, Nuria Elizabeth, Gallegos-Infante, José Alberto, Herrera-Rocha, Karen Marlene, González-Mercado, Manuel Efraim, Moreno-Jiménez, and Martha Rocío
4. Circular Bioeconomy in Functional Foods and Beverages Development: A Sustainable Holistic Approach
Pedro Hassiel Sariñana-Núñez, Nuria Elizabeth Rocha-Guzmán, María José Rivas-Arreola, Rubén Francisco González-Laredo, Martha Rocío Moreno-Jiménez, José Alberto Gallegos-Infante, and Silvia Marina González-Herrera
5. Current Perspectives on Sustainable Food Product Formulation by Microalgae Cultivation
María Gorety Contreras-Hernández, Cordero-Soto Itza Nallely, Alfredo De Jesús Martínez-Roldán, María Dolores Josefina Rodríguez-Rosales, Sergio Valle-Cervantes, and Olga Miriam Rutiaga-Quñones
6. Biostimulation of Grains and Plant Seeds Using Probiotic Microorganisms
Stephany Nefertari Chávez-García, Dora Elisa Cruz-Casas, Erik De León-Juárez, Alvaro Javier Pastrana Pastrana, Steffanny Sánchez Portillo, and Adriana Carolina Flores-Gallegos

Solutions to the food shortage, demand for clean water, and the need for energy for a current world population of 7 billion are the greatest challenges that require technological innovation and changes in public policy. The water-energy-food triangle is necessary to sustain life on this planet. This new book provides a broad overview of both the nexus of water-food-energy and climate and sustainable development, which will have huge impacts on water and food availability.

The Food-Energy-Water Triangle for Sustainable Development: Integrative and Synergic Solutions presents case studies for the management of water, energy, agricultural growth, and food security using empirical analyses and technological interventions. It explores innovations in sustainable food production; energy solutions using biofuels, solar energy, and magnetic energy; and water conservation management.

This volume provides practical information for scholars and researchers interested in the area of nexus studies, focusing on sustainable solutions for conserving, preserving, and producing food, water, and energy.

AAP | APPLE
ACADEMIC
PRESS

US office:
1265 Goldenrod Circle NE,
Palm Bay, FL 32905 USA
Email: info@appleacademicpress.com

Canadian Office:
760 Laurentian Drive, Unit 19
Burlington on L7N 0A4 Canada
info@AppleAcademicPress.com

 www.appleacademicpress.com

◀ Contents continued on side 2 ▶





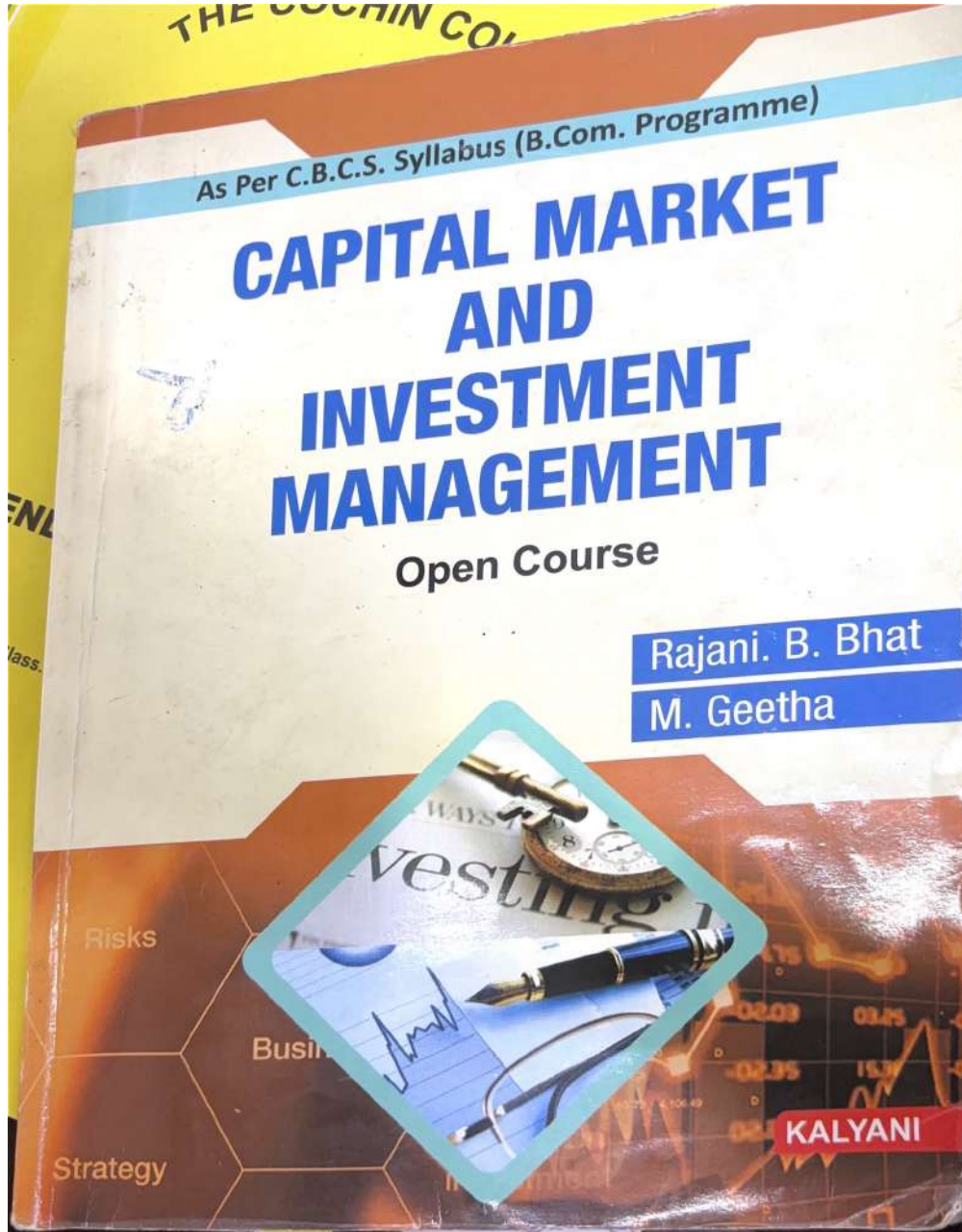
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechochincollege.edu.in

email: email@thechochincollege.edu.in

3 Cover pages of the books



New Book Announcement

Available
October 2024

Save
15%

Micro-and Nanoscale Technologies in Drug Delivery A Contemporary Chemical Approach

Editors: Ana Cristina Faria Ribeiro, PhD
Researcher, Department of Chemistry, University of
Coimbra, Portugal

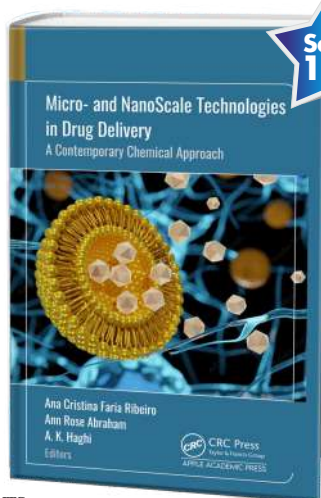
Ann Rose Abraham, PhD
Assistant Professor, Department of Physics, Sacred Heart
College (Autonomous), Thevara, Kochi, Kerala, India

A. K. Haghi, PhD
Professor Emeritus of Engineering Sciences,
Member of Research Chemistry Centre, Coimbra,
Portugal, Senior Material Engineering Consultant (UK)

Drug delivery technologies include new approaches to control the behavior of drugs in the body and improve treatment of diseases by toxicity reduction. This new book covers recent advancements in the development of controlled drug delivery systems, offering novel perspectives, therapeutics, and strategies for the development of drug delivery, keeping the drug molecule as the central component.

The book discusses current theoretical and practical aspects of drug delivery for the discovery and development of novel therapeutics for health problems. Explaining the necessary features essential for pharmacological activity, it takes an interdisciplinary approach by including a unique combination of pharmacy, chemistry, and medicine along with clinical aspects. This book details several important drug delivery systems and their chemical structures, and pharmacological properties against various human diseases. Topics include the functionalized peptide-based nanoformulations, drug-delivery systems using hydrogel nanocomposite systems, protein-based nanocarriers, aqueous electrolyte solutions in clinical and pharmaceutical research, and more.

Providing a unique compilation of data, insightful case studies, and review of existing literature in the area, the book promotes innovation in drug delivery research, exploring the limitations of existing drugs and their improvement in cancer.



CONTENTS

Preface

1. Effects of Drug-Loaded Exosomes with a Peptide Linker on Immunogenic Cell Death of Cancer Cells
Akhil Raj and Seung Rim Hwang
2. Drug-Delivery Systems Using Hydrogel Nanocomposite Systems: Physico-Chemical Characterization
Prathyusha
3. Protein-Based Nanocarriers for Drug Delivery Applications
Deepa Thomas, Eapen Philip, Shijamol S., and Reshmy R.
3. Cancer Therapy and Treatment Using Functionalized Peptide-Based Nanoformulations: An Environmentally Friendly Method of Providing Health Care
Teena Merlin and Smitha Vijayan
5. Nanosystem Based on a Functionalized Protein for Safer Cancer Treatment
Abishri K. R., Puli Mohith Vishnuvardhan Reddy, and Krupa S.
6. Hydrogel-Assisted Neuroregeneration Techniques for Treating Brain Injuries: A Cutting-Edge Review
Roopashree R. and Bhaskar Gaonkar
7. Effective Mucoadhesive Custom Biopolymer-Based Nanoparticles for Improved Probiotic Oral Availability: Current Developments and Future Prospects
Arpita Chakraborty, C. Krishna Meera Menon, Shyamji Verma, Roopashree R., and Bhaskar Gaonkar
8. Current Developments and the Future of Biopolymers for Antitumor Implantable Drug Delivery Systems
Reshmasoman and R. Harikumar Nair
9. Self Assembled Peptide Based Nanomaterials for Targeted Drug Delivery
Akhilraj Pillai, Athira Pillai, Shashanka. K. Prasad, and Namitha Vijay
10. A Review of Green Synthesis and Characterization Techniques for Bismuth Ferrite Nanoparticles and Their Applications
Venkidesh T. V. and Manjusha M. V.



US office:
1265 Goldenrod Circle NE,
Palm Bay, FL 32905 USA
Email: info@appleacademicpress.com

Canadian Office:
760 Laurentian Drive, Unit 19
Burlington on L7N 0A4 Canada
info@AppleAcademicPress.com

www.appleacademicpress.com

◀ Contents continued on side 2 ▶





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechochincollege.edu.in

email: email@thechochincollege.edu.in

AAP

New Book Announcement

★
Available
September 2024
★

The Food-Energy-Water Triangle for Sustainable Development Integrative and Synergic Solutions

Editors: Pedro Aguilar-Zárate, PhD
Professor, National Technological Institute of Mexico,
Technological Institute of Ciudad Valles, Mexico

Mónica Chávez-González, PhD
Professor, School of Chemistry,
Universidad Autónoma de Coahuila, Mexico

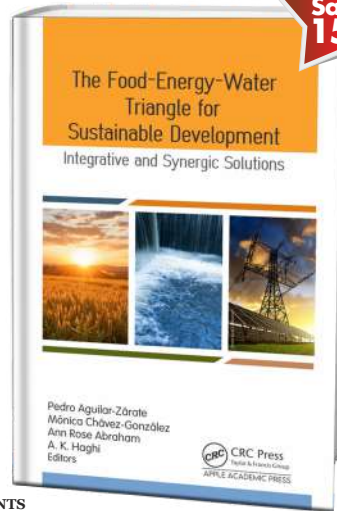
Ann Rose Abraham, PhD
Assistant Professor, Sacred Heart College (Autonomous),
Thevara, Kochi, Kerala, India

A. K. Haghi, PhD
Research Associate, Department of Chemistry,
University of Coimbra, Portugal

Solutions to the food shortage, demand for clean water, and the need for energy for a current world population of 7 billion are the greatest challenges that require technological innovation and changes in public policy. The water-energy-food triangle is necessary to sustain life on this planet. This new book provides a broad overview of both the nexus of water-food-energy and climate and sustainable development, which will have huge impacts on water and food availability.

The Food-Energy-Water Triangle for Sustainable Development: Integrative and Synergic Solutions presents case studies for the management of water, energy, agricultural growth, and food security using empirical analyses and technological interventions. It explores innovations in sustainable food production; energy solutions using biofuels, solar energy, and magnetic energy; and water conservation management.

This volume provides practical information for scholars and researchers interested in the area of nexus studies, focusing on sustainable solutions for conserving, preserving, and producing food, water, and energy.



Save
15%

CONTENTS

Preface

1. The Sustainable Use of Cactaceae as Functional Foods: The Hypoglycemic Effect
Abigail Reyes, Christian Sánchez, Brenda Alvarado, Ariel Vazquez, and Pedro Aguilar-Zarate
2. Microbial Technology to Produce Sustainable Food Bioproducts: Insights into Submerged Fermentation
Itza Nallely Cordero-Soto, María Gorety Contreras-Hernández, Silvia Marina González-Herrera, Alfredo De Jesús Martínez-Roldán, and Olga Miriam Rutiaga-Quñones
3. Pomace from Pome Fruits as a Source of Functional Foods and Extracts with Nutraceutical Potential
Salas-Ramírez, Carlos Alonso, González-Laredo, Rubén Francisco, Rocha-Guzmán, Nuria Elizabeth, Gallegos-Infante, José Alberto, Herrera-Rocha, Karen Marlene, González-Mercado, Manuel Efraín, Moreno-Jiménez, and Martha Rocío
4. Circular Bioeconomy in Functional Foods and Beverages Development: A Sustainable Holistic Approach
Pedro Hassiel Sariñana-Núñez, Nuria Elizabeth Rocha-Guzmán, María José Rivas-Arreola, Rubén Francisco González-Laredo, Martha Rocío Moreno-Jiménez, José Alberto Gallegos-Infante, and Silvia Marina González-Herrera
5. Current Perspectives on Sustainable Food Product Formulation by Microalgae Cultivation
María Gorety Contreras-Hernández, Cordero-Soto Itza Nallely, Alfredo De Jesús Martínez-Roldán, María Dolores Josefina Rodríguez-Rosales, Sergio Valle-Cervantes, and Olga Miriam Rutiaga-Quñones
6. Biostimulation of Grains and Plant Seeds Using Probiotic Microorganisms
Stephany Nefertari Chávez-García, Dora Elisa Cruz-Casas, Erik De León-Juárez, Alvaro Javier Pastrana Pastrana, Steffanny Sánchez Portillo, and Adriana Carolina Flores-Gallegos

AAP | APPLE
ACADEMIC
PRESS

US office:
1265 Goldenrod Circle NE,
Palm Bay, FL 32905 USA
Email: info@appleacademicpress.com

Canadian Office:
760 Laurentian Drive, Unit 19
Burlington on L7N 0A4 Canada
info@AppleAcademicPress.com

 www.appleacademicpress.com

◀ Contents continued on side 2 ▶





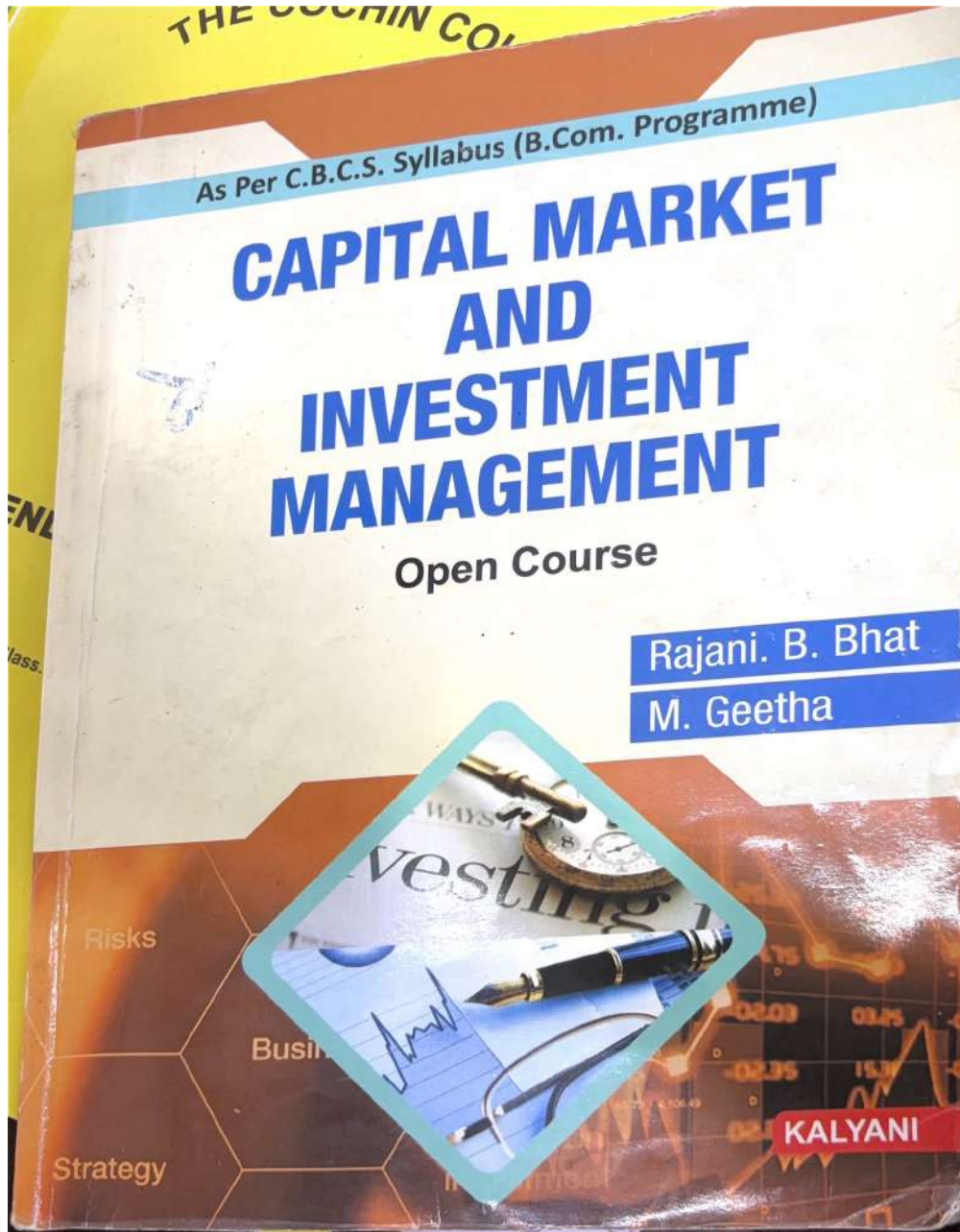
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechochincollege.edu.in

email: email@thechochincollege.edu.in



പുസ്തകം നാമം:

ഇന്ത്യയിലെ പാലക്കാട്

പുസ്തകത്തിന്റെ പേര്:

SC08 - 82 : എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്

പുസ്തകത്തിന്റെ രചയിതാവ്:

എസ്.എസ്.സി. പാലക്കാട്
 എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600015.
എസ്.എസ്.സി. പാലക്കാട്
 എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600015.
എസ്.എസ്.സി. പാലക്കാട്
 എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600015.

പുസ്തകത്തിന്റെ വിഷയം:

എസ്.എസ്.സി. പാലക്കാട്
 എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 682 002.

പുസ്തകത്തിന്റെ വിഷയം:

എസ്.എസ്.സി. പാലക്കാട്
 എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600015.

പുസ്തകത്തിന്റെ വിഷയം:

എസ്.എസ്.സി. പാലക്കാട്
 എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600015.

പുസ്തകത്തിന്റെ വിഷയം:

എസ്.എസ്.സി. പാലക്കാട്
 എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600015.

പുസ്തകത്തിന്റെ വിഷയം:

ISBN No : 978-93-5753-683-7



© TNOU, 2023, 'എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്' എന്ന പേരിൽ.

ഈ പുസ്തകം പാലക്കാട് - പാലക്കാട് ജില്ലയിലെ പാലക്കാട് (പാലക്കാട്).

<https://creativecommons.org/licenses/by-nc-sa/4.0/>

എസ്.എസ്.സി. പാലക്കാട് പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600015. എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600015. എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600015.

എസ്.എസ്.സി. പാലക്കാട് പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600 015. എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600 015. എസ്.എസ്.സി. പാലക്കാട്, പാലക്കാട് ജില്ലയിലെ പാലക്കാട്, പാലക്കാട് - 600 015.

എസ്.എസ്.സി. പാലക്കാട്



Mrudula Menon
 Mrudula Menon V.
 Principal-in-Charge
 The Cochin College



THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechoinchcollege.edu.in

email: email@thechoinchcollege.edu.in

Shodhak (शोधक)
A Journal of Historical Research

(ISSN: 0302-9832)

SEARCHING THE SELF IN SPIRITUAL JOURNEY: AN ANALYSIS OF M. D. SURESH BABU'S *KAILASATHILEKUM, PINNE AVANAVANILEKKUM*

Reethi P.

Assistant Professor, Department of English, The Cochin College

Abstract:

Travel Writings are explorations into external knowledge. It can be a journey in reverse to the self. The paper is an attempt to analyse *Kailasathilekum, Pinne Avanavanilekkum* by M.D. Suresh Babu as a journey of self. The paper looks into the subjective element in the travel writings, in the sacred region of Mount Kailas and Manasarovar. Identification of the individual and the self reflects the subjective element which reflects the culture. The work analysed *Kailasathilekum, Pinne Avanavanilekkum* is a travel literature in which the author travels from southern state of India, Kerala to the Northern end of the Himalayas. Though Mount Kailas is in China occupied Tibet, the region is part of the Indian mindscape without any borders to limit the beliefs of several religions in India. The region is not only a sacred place but is also a place of lots of mysteries. Many travel writers mentioned that reaching the place and the vision of Mount Kailas brings an exhilarating experience, where they could feel the union of nature and man. Visiting the place makes the traveller to look within oneself and shed off his/ her ego.

Keywords: Self, Identity, Culture, Travel

Sub-theme: Travel

In present society travel is considered as a commercial act where the economy is having suggestive growth. Travelling for pleasure leads to tourism which is considered as a source of revenue by many countries. Increased transportation facilities and consequent global mobility have widened the platform of tourism. Earlier, travels were limited among the rich people, but now it has become popular among the poorer classes. The increase in travel increased the production of travel narratives too. The travellers documented whatever they saw, experienced and cherished during their journey. Thus, travel literature became a handbook to many and it helped to understand the social, cultural and economic background of the places visited by the travellers. Literature is considered to be socially and culturally affiliated and there is a direct link between literature and travel, as travel is socially and culturally responsible for the transformation of an individual.

Travel is the journey or movement of a person in single or in group to other places. Traveller can move within his country or can cross the borders. Other than these two types of travel, a person travels to the world of imagination within oneself. It is also possible to look within oneself by doing yoga and meditation. Journey or travel is not necessarily physical displacement; it can be a journey within the mind leading to the transformation of self. Reading is an example where we make a journey within ourselves. The physical travel cannot be restricted to the gaze of the traveller on different places, people and society but also the travels that can lead us to look into ourselves. It transforms the self, especially pilgrimages which offers us an escape from the sins and material passions that each one of us have. These transformations or journey to the self can be seen in many travel narratives.

Vol. 52, Issue-2 (July-September) (Special Issue) 2023
UGC Care Group 1 Journal

213





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechochincollege.edu.in

email: email@thechochincollege.edu.in

जयशंकर प्रसाद की कविताओं में अभिव्यक्त स्वच्छन्दतावादी विचार

- डॉ० कविता वी. राजन

हिन्दी काव्य की विविध प्रवृत्तियों में से स्वच्छन्दतावाद को देश-काल की दृष्टि से, परिनिष्ठित धरातल पर जो व्यापक लोकप्रियता और विशेष प्रशस्ति प्राप्त हो चुकी है, वह उसकी अन्तर्निहित शक्ति एवं महत्ता का प्रमाण है। "हिन्दी में स्वच्छन्दतावाद शब्द अंग्रेजी के रोमांटिसिज़म से मिलती-जुलती प्रवृत्तियों को अभिव्यक्त करने के लिए प्रयुक्त हुआ है।" एबर क्रांबी के अनुसार, "रोमांटिसिज़म बाह्य अनुभवों से आन्तरिक अनुभव तक का अनंत प्रयाण है। इसमें यथार्थ जीवन का लक्ष्य निहित है।" डॉ. धीरेन्द्रवर्मा ने स्वच्छन्दतावाद को 'साहित्यिक उदारवाद' कहा है। उनके अनुसार, "प्राचीन क्लासिक परिपाटी के विरोध में उठ खड़ी होनेवाली विचार-धारा को रोमांटिसिज़म कहना उचित है। यह तो ठीक है कि स्वच्छन्दतावाद में प्रगतिशीलता है। परन्तु वह तत्कालीन राष्ट्रीय एवं देशभक्तिपरक विचारों को महत्व देनेवाला भी है।" स्वच्छन्दतावादी कविता से आधुनिक हिन्दी कविता का जो बोध होता है, जिसमें छायावाद का भी समावेश है। देश-भक्ति, प्रकृति-प्रेम, मानवीकरण, एकांत प्रणय का गहरा रूप भी इसमें देखने को मिलते हैं। वैयक्तिकता, सौन्दर्य-चेतना, कल्पना, विषाद एवं करुणा और विस्मय एवं रहस्यानुभूति के तत्व इन कविताओं में निहित हैं। इतना ही नहीं, वैयक्तिक स्तर पर विद्रोह भी इन कविताओं में मुखरित हो जाते हैं। हिन्दी साहित्य में जयशंकर प्रसाद के काव्य में ये विशेषता पहली बार दृष्टव्य हो जाता है और उनका चरम विकास भी प्रसाद के ही काव्य में दिखाई पड़ता है।

प्रसाद के काव्य में एक साथ क्लासिकल गरिमा भी है और स्वच्छन्दतावादी प्रवृत्तियाँ भी। वे मुख्य रूप से प्रेम और सौन्दर्य के कवि हैं। उन्होंने प्रेम की विभिन्न मनःस्थितियों का सुन्दरतम चित्रण किया है। विश्वम्भरनाथ तिवारी के अनुसार, "प्रेम उनके काव्य-शरीर में आत्मा की तरह व्याप्त है।" उनकी सभी कृतियों का यह प्रेम ही शक्ति और जीवनदाता





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



15

Covid-19: Shocks to the Education Sector and the Way Forward

Ashitha A.B. and Anu L

Introduction

The world has been through one of the severe health calamities of modern times. The Covid-19 outbreak in Wuhan (China) rapidly spread all over the world, upsetting human lives. The world is currently in a grip of global recession. Initially, Covid-19 was declared as a public health emergency of international concern by World Health Organisation (WHO). Later on, the alarming ramification of coronavirus resulted in WHO declaring it as a pandemic. Corona is an infectious disease spread from one person to another via droplets produced from the respiratory system of infected people often during coughing and sneezing. To break the spread of Covid-19, countries across the world took several measures like social distancing, quarantine, personal hygiene, travel restrictions, full lockdowns etc.

To further prevent the spread of this pandemic among young people and children, academic institutions were shut the world over. As per the UNICEF report, 188 countries imposed countrywide school closure affecting more than 1.5 billion children and youth (UNICEF, 2020). In India, as of second week of March 2020, all universities, colleges and schools were shut down. "Never before have we witnessed educational disruption on such a scale", said UNESCO Director-General Audrey Azoulay. Experts from the World Bank pointed out that even before the corona, the world was witnessing a 'learning crisis' and already out of the track to meet Sustainable Development Goal 4, whereby every nation has to





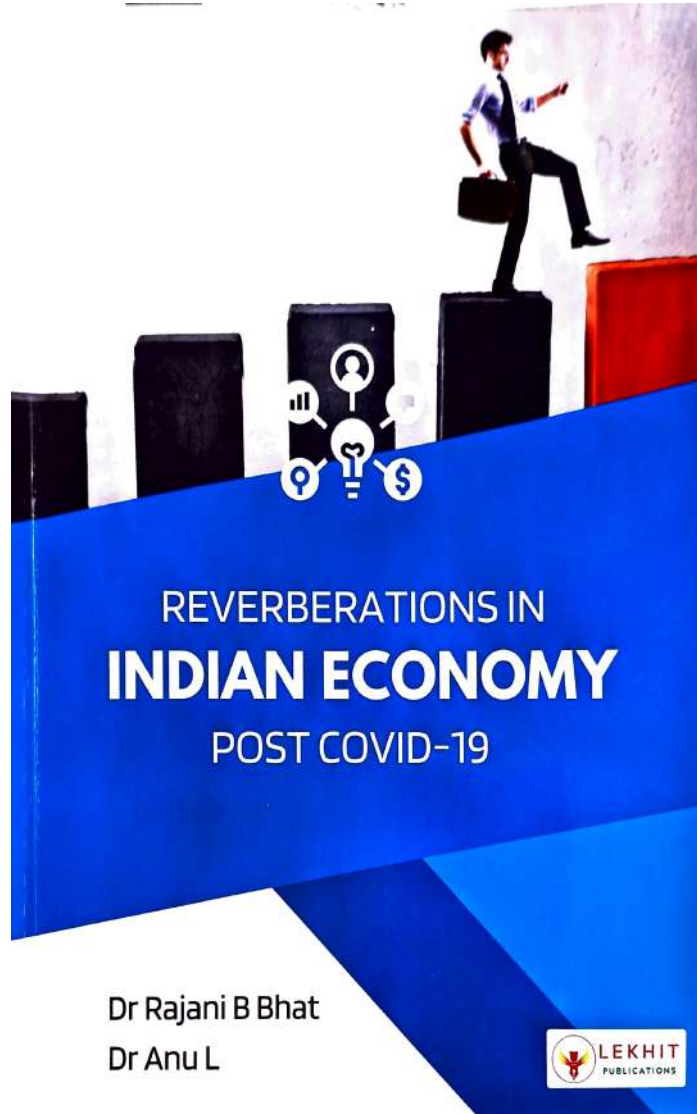
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



Dr Rajani B Bhat
Dr Anu L





THE COCHIN COLLEGE

KOCHI - 682 002

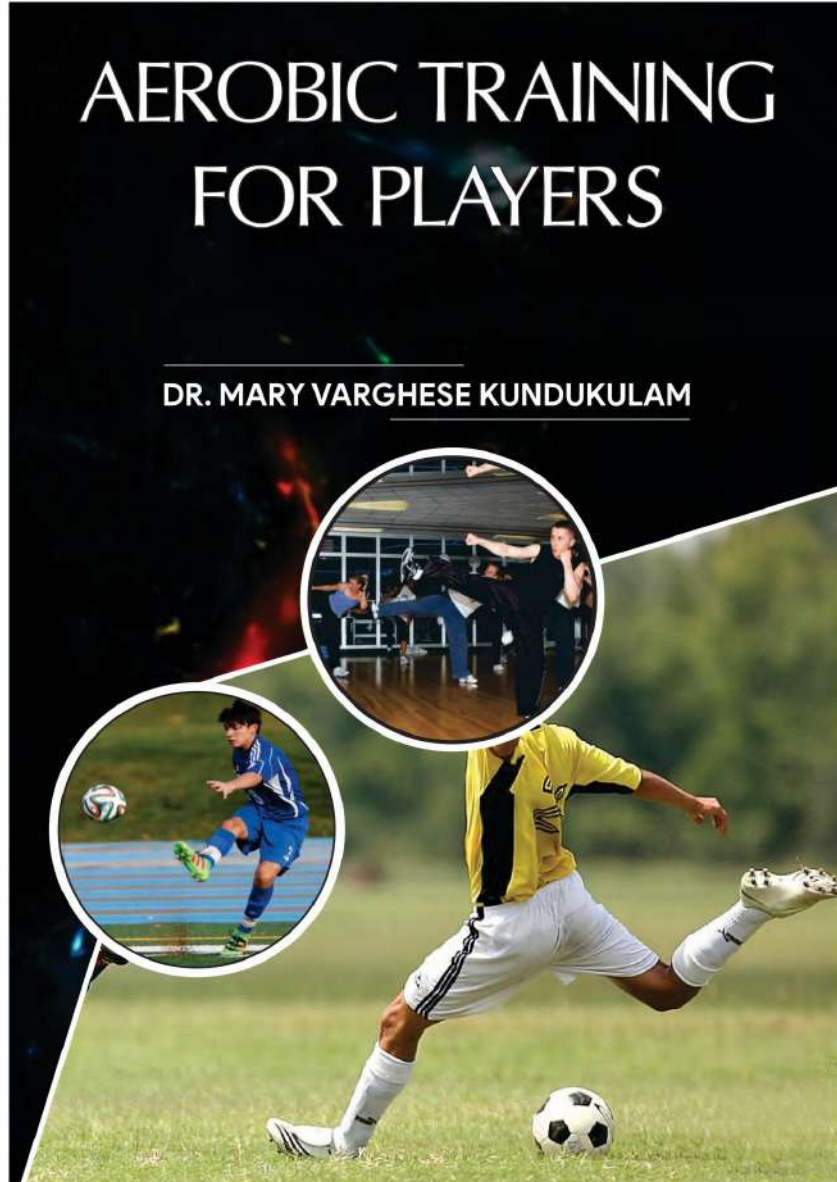
(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

AEROBIC TRAINING FOR PLAYERS

DR. MARY VARGHESE KUNDUKULAM





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



| | |
|-------------------------|---|
| Name of Programme: | BBA |
| Course Code with Title: | BBAS - 21: Organisational Behaviour |
| Curriculum Design: | <p>Dr. S. Subramanian Professor & Director School of Management Studies, Tamil Nadu Open University, Chennai - 600015</p> <p>Dr. R. Tamilmaran Associate Professor School of Management Studies, Tamil Nadu Open University, Chennai - 600015</p> <p>Dr. N. Saranya Devi Assistant Professor School of Management Studies, Tamil Nadu Open University, Chennai - 600015</p> |
| Course Writer: | <p>Dr. Rajani B Bhat Assistant Professor Department of Commerce, The Cochin College Kochi - 682002</p> |
| Content Editor: | <p>Dr. N. Saranya Devi Assistant Professor School of Management Studies, Tamil Nadu Open University, Chennai - 600015</p> |
| Course Coordinator: | <p>Dr. N. Saranya Devi Assistant Professor School of Management Studies, Tamil Nadu Open University, Chennai - 600015</p> |

October, 2022 (First Edition)

ISBN No: 978-83-8706-178-0



© TNOU, 2022. 'Organisational Behaviour' is made available under a Creative Commons Attribution-ShareAlike 4.0 License (International).

<https://creativecommons.org/licenses/by-sa/4.0/>

All rights reserved. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from the Tamil Nadu Open University. Course Writer is the sole responsible person for the contents presented in the Course Materials.

Further information on the Tamil Nadu Open University Academic Programmes may be obtained from the University Office at 577, Anna Salai, Saidapet, Chennai-600 015 [or] www.tnau.ac.in

Printed by:





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in

4 Cover pages of the books

13

Nation, Border and Othered: An Analysis of Travel Narratives to Sino - Indian Border

Reethi P.

Nation exists as a concept of shared imaginations, values and culture. Nation can be defined in relation with the Other-the enemy, the outsider; just like the self is defined by the Other. The existence of Nation is defined by its borders. "Borders refer to external boundary of states which have legal significance and require knowledge of history and appreciation of context to understand". (Bartlett and Mackay 594). Borders are significant in legal terms because they are the legal demarcations which define sovereign jurisdictions. People travel within the territories and also across the boundaries. These travels cross the boundaries of states and even countries.

Boundaries are spaces that separate one place from other; it also joins the spaces too. Crossing the border suggests the historicity and cultural specificity of the geographical borders. Crossing the border reflects different cultural spaces; it is in this context the travel narratives to Himalayas are important. Recently,

158/212





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

Recent Advancements and Research in Biological Sciences | 2021
ISBN: 978-81-952529-1-6

A Study on the effect of plant derived extracts on the Oviposition of *Aedes aegypti*.

Dr. Smitha N.R^{1*}, Dr. Manju V Subramanian²,
Dr. Vineeth Kumar T V³ and Jayasree S⁴

^{1,2,3,4} Dept. Of Zoology, The Cochin College, Kochi-682005

*Corresponding author: Dr. Smitha N.R, E-mail: smithasreeji@gmail.com

Abstract

Mosquitoes are common in tropics and abundant in damp and marshy places. They act as vectors for many disease causing viruses and parasites. Viral diseases, such as yellow fever, dengue fever, and Chikungunya, Zika are transmitted by *Aedes aegypti*. *Aedes aegypti* is a container breeder and eggs are laid on damp surfaces such as in tree holes, containers, flower vases etc. *Aedes* thrive in urbanized areas i.e., in close contact with people making them a successful vector. In this study 14 ovitraps having different plant extracts such as *Setaria viridis* (Grass), *Piper aduncum* leaves, pepper corns, *Murraya koenigii* (Curry leaf) *Azadiracta indica* (Neem), Eucalyptus oil, Lemon grass oil etc. were evaluated for studying the Ovipository activity of *Aedes aegypti*. Ovitrap were provided with a paddle for laying the eggs. It was kept undisturbed and was observed regularly and the number of eggs was counted weekly. Studies have shown that the oviposition activity of *Aedes aegypti* was more in water blended with Pepper Corns (29%) followed by *Setaria viridis* (26%) and *Murraya koenigii* (10%). Ovipository activity of *Aedes* was less in lemon grass oil and *Piper aduncum* leaves (1%), *Azadiracta indica*, and eucalyptus oil (2%) respectively. In this study it was observed that Pepper corn and grass leaves worked as an attractant to the ovitrap whereas Eucalyptus oil, lemon grass oil and *Piper aduncum* leaves were found to be an effective repellent for oviposition of *Aedes aegypti*.

Key words: *Aedes aegypti*, Oviposition, plant extracts





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

REGULATORY FRAMEWORK OF ETHICAL ADVERTISING: AN INDIAN VIEW

Renuka K K, Research Scholar, The Cochin College, Kochi 2,
Email: renukarajesh7@gmail.com, Mob: 9961139992.

Dr. M. Geetha, Research Supervisor and Principal, The Cochin
College, Kochi 2, Email: geethakem@gmail.com, Mob: 9447459909.

Abstract

Advertisement as a strong weapon can influence the attitude of consumers and can frame the buying behavior according to the needs and wishes of marketers. The big threat in today's way of advertising is how far it follows the truthfulness and honesty in the way of its communication. At times when it goes beyond the ethical standards giving detrimental results among the vulnerable sections of the society like children and youth. Like any other real life situation where we have to decide upon right or wrong, choosing a product or service is also a matter of decision making determined by various internal and external factors. It is extremely the priority of this time to restore the ethical aspects of advertisements and in turn provide healthy information to the society. Marketers should be aware about the laws supporting ethical advertising and the definition of various terms to make sure it's presence or absence in its communication process. There are various regulations in India to monitor the quality of advertisements which in turn suggest the need of a self regulatory system that complement the legal framework. This article talks about statutory prohibition and the purpose of self regulation to tackle the problem of unethical advertisements.

Keywords: Advertisement, Ethics, Self regulation, Ethical Advertising.

Introduction

Advertising is a paid form of communication and the process of dissemination of information between seller and consumer. It influences different target groups of consumers in a higher level in their purchase decision making. For that advertisers use various tactics and strategies according to the nature of products and taste and preference of consumers. Comparing to traditional ways modern means of advertisements can reach the minds of consumers more deeply. Since children and youth are more involved in to the modern ways of communication, its honesty and truthfulness are of extreme prominence. Advertising helps in building the brand in the market and ensuring the success of the brand. It is an important tool for the long

170





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

Contents

| | |
|---|-------------|
| Foreword | ix |
| Preface | xi |
| Dr. A.T. Francis: A Biographical Sketch | xvii |
| <i>C. Abdul Razak and Dr. V.S. Swapna</i> | |
| 1. Academic Library: Futuristics | 1 |
| <i>Dr. K.V. Peter</i> | |
| 2. Measuring the Research Impact of Articles and Individuals | 3 |
| <i>Dr. C. George Thomas</i> | |
| 3. Let the Library Dialogue Continue Excerpts from an Interview with Dr. A.T. Francis | 15 |
| <i>K.P. Sathian and Dr. K.R. Ajithan</i> | |
| 4. Impact of RFID in Library Management: A Case Study of KUFOS Central Library | 27 |
| <i>V.S. Kunjumammed and Dr. A.T. Francis</i> | |
| 5. Human Resource Development of Librarians: An Experience in Kerala Agricultural University | 39 |
| <i>Sowmya C. Rajan, C. Abdul Razak and M.C. Lalitha</i> | |

xiv

| | |
|---|-----------|
| 6. What is Academic Integrity and Research Ethics? | 51 |
| <i>Dr. T.A. Abdul Azeez</i> | |
| 7. Assessing the Bibliotherapeutic Values of Indian Folktales: Through the Vision of a Librarian | 61 |
| <i>Dhanya S.</i> | |
| 8. Role of Special Collection in Academic Libraries: A Study | 79 |
| <i>Jeena Jayan</i> | |





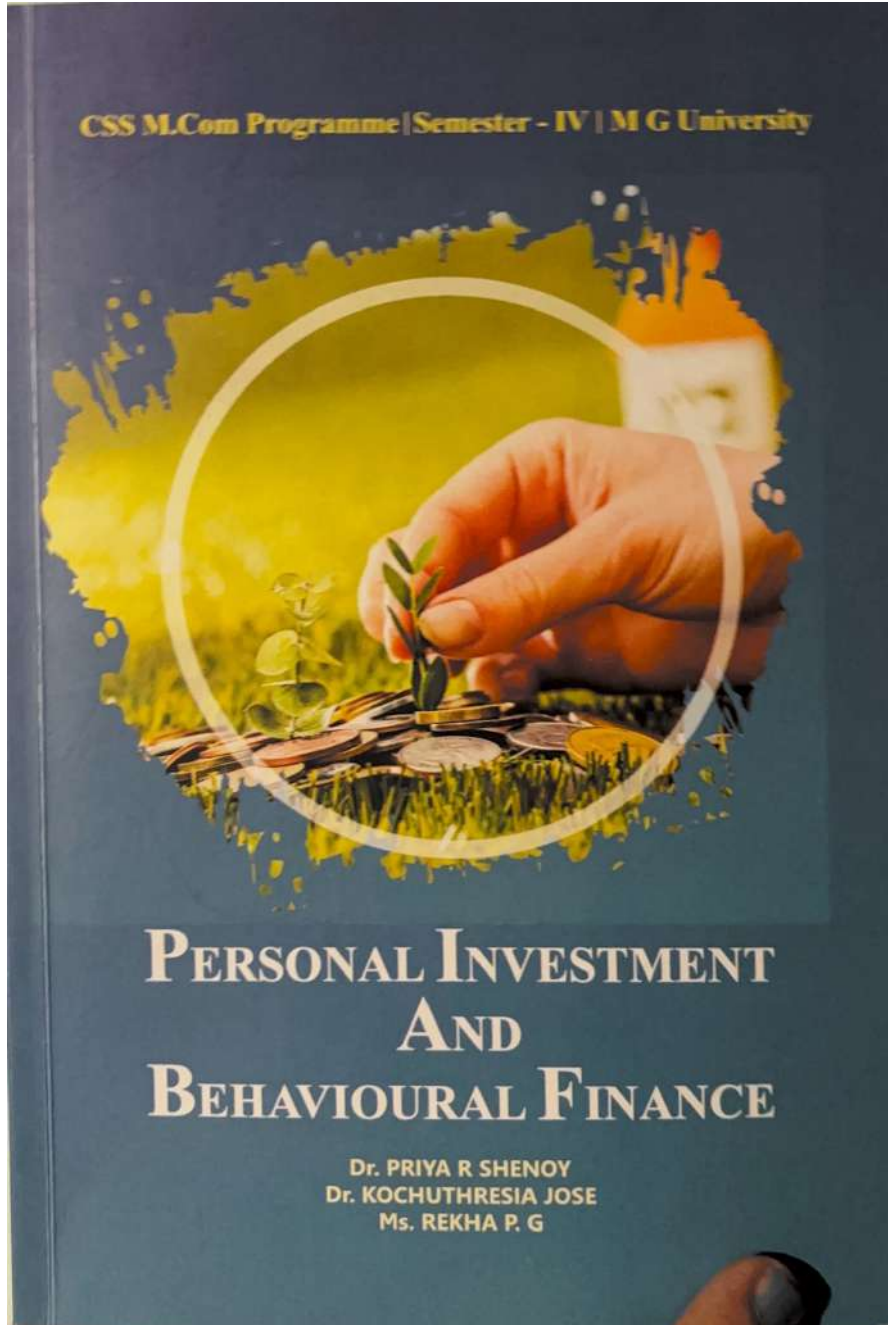
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechochincollege.edu.in

email: email@thechochincollege.edu.in

ISBN: 978-81-946375-3-0

Dr. Malobika Routh

Transition From Traditional Teaching Methodology To Online Teaching

"EDUCATION 4.0"- A ROAD MAP TO TEACHING AND LEARNING WITH TECHNOLOGY

Ashitha A. B.

Research Scholar, Post Graduate and Research Department of Commerce, The Cochin College, Kochi, Kerala

Dr. Anu L

Assistant Professor, Post Graduate and Research Department of Commerce, The Cochin College, Kochi, Kerala

ABSTRACT

Education 4.0 emerged as a response to industry 4.0, which is characterised by an increasing use of internet based technology and communication tools. Education 4.0 or technology interceded education has gained importance during COVID-19 lockdown. As a precaution to avoid the spread of this pandemic schools, colleges and universities around the world are closed, which resulted in disruption of teaching and learning. Education with the help of technology is the only option available to curb this situation. Education 4.0 gains importance in this scenario. The persons who are not willing to adapt the technology enabled education forced to use the same. This paper try to discuss the evolution of education 4.0, its characteristics and some tools and techniques for online teaching and learning.

Keywords: Education 4.0, Technology, Teaching, Learning

INTRODUCTION

"If we teach today as we taught yesterday, we rob our children of tomorrow"- John Dewey

Change is inevitable in every sector. Education 4.0 is the word which gains importance among the educationalists. It came to comply with the requirements of fourth industrial revolution (IR 4.0). Due to IR 4.0 change is inevitable in every sector including the education sector. It is important to know about industrial revolution for a better understanding of education 4.0.

The first industrial revolution: The first industrial revolution started at the end of 18th century and it lasts till the beginning of 19th century. Agriculture based economy witnessed the formation of industries. Human and animal labour mechanism transformed into machine based mechanism. Steam engines were the main inventions at that period.

The second industrial revolution: It started from the late 19th century and lasts till the beginning of 20th century. It is also known as technological revolution. Massive use of technologies for industrialisation and standardisation led to mass production during this period. Electricity, gas and oil were the major inventions.

The third industrial revolution: It started in the second half of 20th century. This period is characterised by high level automation. Electronics, telecommunication and computers were invented during this time.

1





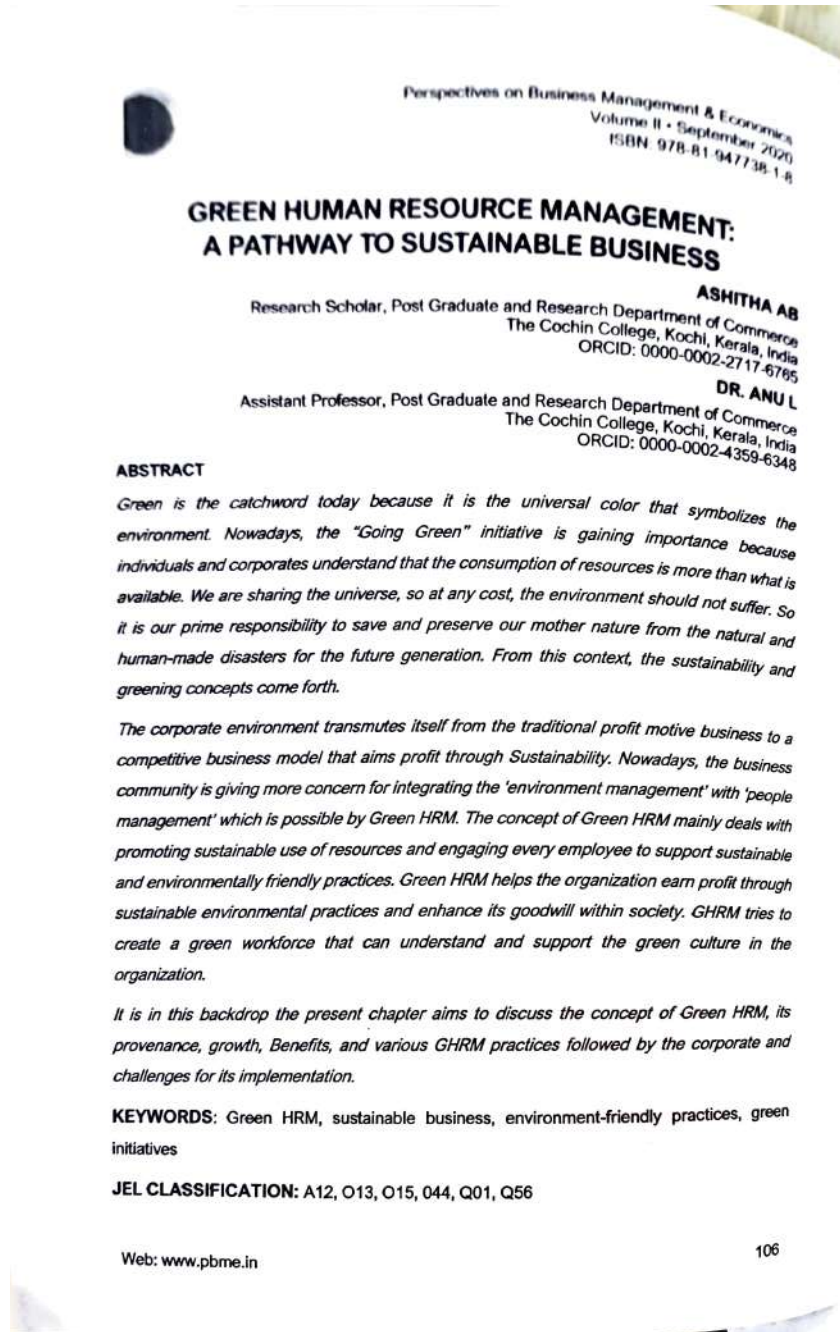
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



Recent Trends on Multidisciplinary Research

HR: CHALLENGES AND WAY AHEAD AMIDST COVID-19 PANDEMIC

ASHITHA A.B.

Research Scholar, Post Graduate and Research Department of
Commerce, The Cochin College, Kochi, Kerala, India
Email id: abashitha94@gmail.com

Dr. ANU L

Assistant Professor, Post Graduate and Research Department of
Commerce, The Cochin College, Kochi, Kerala, India
Email id: anukchal@gmail.com

Abstract: The corona virus has become a major challenge, the world is facing now. It has been declared as a global pandemic by World Health Organization(WHO) and it is spreading rapidly around the world. The corona virus has affected almost all countries of the world bringing slowdown in the economy due to lockdowns by the nations. The pandemic affected every sectors of the economy and millions of people. Lot of people lost their jobs and companies hold on fresh appointments to cut down their costs. Reduction in the salary package is an issue facing by the existing employees. Most of the organizations adopted work from home facility to ensure social distancing and to reduce the spread of corona virus. It is in this backdrop the present chapter aims to discuss the challenges and way ahead to human resources.

Key words: Covid-19, HR, Challenges, Way ahead

Introduction

Novel Corona Virus declared by World Health Organization (WHO) as 'COVID-19', as a pandemic affecting more than 215 countries worldwide, is an infectious disease caused by a new virus first appeared in Wuhan in China. The UN secretary General said it 'as the worst crises faced by mankind since World War-II'. Due to this pandemic most portion of the World population is now in danger. In one hand people are at high risk to get infected by this deadly virus and other hand the poverty and unemployment adversely affecting

ESN Publications

ISBN: 978-93-90781-23-2

Page 138





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

12

SOCIAL INFLUENCE ON CONSUMER BEHAVIOUR TOWARDS SMARTPHONE BRANDS

MRS FARZANA O.I.

Research Scholar, P.G. and Research Department Of Commerce, The Cochin College, Kochi-2,
Mahatma Gandhi University, Kottayam.

DR. ANU L.

Assistant Professor, P.G. and Research Department Of Commerce, The Cochin College, Kochi-2,
Mahatma Gandhi University, Kottayam.

ABSTRACT

A Smartphone has become a device which continuously penetrates into the daily life of human its inevitable role has made it to get a space in both personal and work life of people. The smartphone revolution which is hitting all over the world and India, holds second largest market of smartphones after China and is continuously increasing its market share. While comparing the statewide smartphone market, Kerala conquers a highest rate that is 65 % of share in India as per cyber media research. The continuous growth in the consumption of smartphones paves the way to identify the essential factors which lead consumer to choose a particular brand. In order to meet the purpose 'Consumer Behaviour' is the terminology used in this study. There are various factors which induces the people to purchase a smartphone. According to Philip Kotler cultural, social, personal and psychological factors are the main characteristics which influence the consumer behaviour. In this research the social factors that influence the buyer before purchasing a smartphone is considered. So that the factors closely related with social environment is studied in detail.

Key words – Smartphone, Consumer Buying Behaviour, Social Influence, Brands

INTRODUCTION

Smartphone industry is one of the promising industry in the economy. There shows a steady growth in the consumption of smartphones in the past few decades over the world which leads to the rapid development of telecommunication sector. Entry of low cost chinese handsets has made this industry difficult for the domestic manufacturers to withstand. According to International Data Corporation (IDC) India's smartphone market hiked into 152.5 million units in 2019 which depicts an increase of approximately 8% year over year. Foreign smartphone companies like Xiaomi, Samsung, Apple, Honor, Vivo etc are dominating the Indian market and there exist a neck to neck competition with the domestic companies. Since Kerala is a consumer state there shows a fastest growth in the consumption of smartphones.

Consumer behaviour is a human behaviour associated with various deciding factor which a buyer come across at the time of choosing a product which satisfies the needs with their existing resources includes time, money and effort. Though there exist various factors like price, quality, brand, technology, origin etc that influence the buyer to purchase a product, social influence towards consumer buying behaviour is explained in this study. The social factors that influence buyer before purchase consist of reference groups, family, peers, media and also their role and status in

77 | ADVERTISING

ISBN NUMBER 978-93-89488-31-4





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechochincollege.edu.in

email: email@thechochincollege.edu.in

EMERGING TRENDS IN FORENSIC ACCOUNTING - A FUTURISTIC PERSPECTIVE

Mrs. Femeena .P.A

Research scholar, PG and Research Department of Commerce, The Cochin College, Kochi-2.

Dr. Anu L

Assistant Professor, PG and Research Department of Commerce, The Cochin College, Kochi-2.

ABSTRACT

Forensic accounting is one of the accounting methods to find out the financial manipulation by conducting detailed assessment and analysis of financial information. It is an analysis of financial data that can be used to defend a case in a court of law. Forensic audit ensures the accuracy and lawfulness of financial statement of business. With the increase in use of technology in accounting field increases the risk of white collar crimes. This paper attempts to describe the emerging trends in forensic accounting.

Key words: Financial statement, forensic accounting, forensic audit, trends, white collar crimes

Introduction

Wide range of investigative work done by professional accountants is known as forensic accounting. Investigation may be conducted to discover the existence of fraud, to find out the persons who are involved in the fraud, to measure the financial loss suffered and ultimately present findings to the client or to the court as the case may be. Forensic accounting is generally used for detection of fraud and embezzlement in business. Forensic accounting diverges from the traditional accounting which mainly focuses on recording, classifying, summarizing, reporting and interpreting the transactions and events in the nature of finance. It is popularly known that forensic accounting is a thrill of hunt. It is a blend of accounting and forensic science. The words forensic auditing and forensic accounting are used interchangeably.

Historical background of forensic accounting in India:

The birth of forensic accounting is credited to Frank John Wilson who in 1930s, working as a Certified Public Accountant (CPA) in USA was placed to investigate the secret dealings of the Al Capone, infamous Chicago gangster. He was indicted for tax evasion and sentenced for imprisonment for the illegal activities done by him. However, Maurice Peloubet, a New York Certified Public Accountant, coined the term Forensic Accounting in 1946. In India, history of forensic accounting goes back to the ancient times of Mauryan time; Kautilya was the first person to mention in his famous book Kautilya Arthashastra the famous forty ways of misappropriation. In India, investigative tasks of forensic auditing are done by Chartered Accountants.

Forensic accounting is defined as "the application of investigative and analytical skills for the purpose of resolving financial issues in a manner that meets standards required by court of law. Forensic accountants apply special skills in accounting, auditing, finance, qualitative methods, certain areas of law, research and investigative skills to collect, analyze and evaluate evidential matter and to interpret and communicate findings."

According to AICPA (1993): "Forensic accounting is the application of accounting principles, theories and discipline to facts or hypothesis at issues in a legal dispute and encompasses every branch of accounting knowledge."





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



DERIVATIVES AND RISK MANAGEMENT

Rajani B Bhat
Suresh V N.

KALYANI





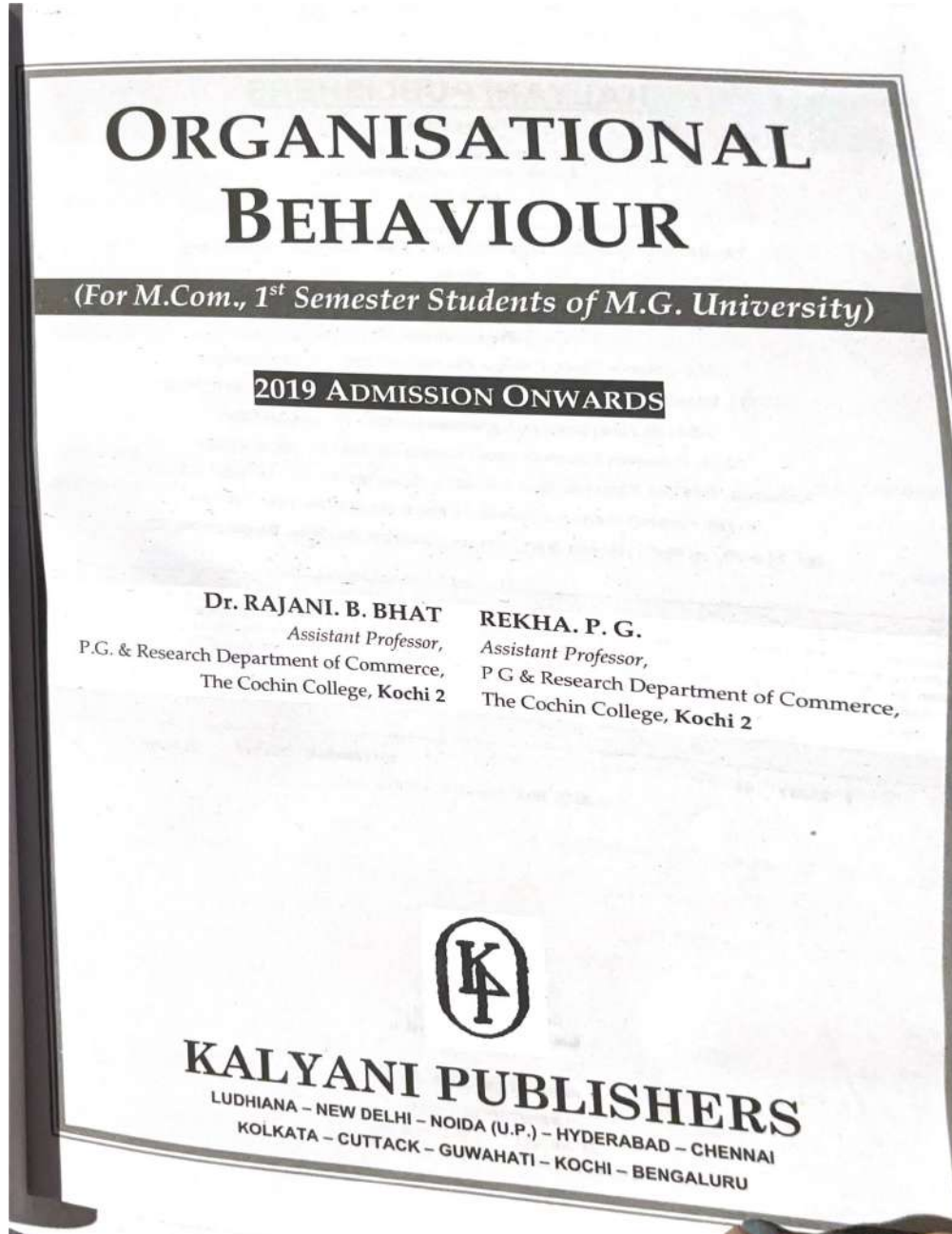
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



SMART MOVES JOURNAL IJELLH

International Journal of English Language, Literature & Humanities

Volume 7, Issue 11, November 2019

www.ijellh.com

<https://doi.org/10.24113/ijellh.v7i11.10100>

Travel Brochures as Constructs and Commodities

Dr. Milon Franz

St. Xaviers College for Women

Aluva, Kerala, India

reethi_p@rediffmail.com

Reethi P.

St. Xaviers College for Women

Aluva, Kerala, India

Abstract

The paper is an attempt to analyse the photographs in the travel brochures. The brochures created by the Kerala Government are considered as sample for analysis. The photographs used in creating the brochures are to attract the targeted travellers from other countries, so it will be shown as the best representation of a place. The photoshopped images of Kathakali, rain forests and backwaters are not the real pictures of the place which becomes the prominent pictures on the Travel Brochures every year. Some latest photos are of Theyyam and the traditional Hindu art forms. The pictures are the representation of perspectives, it focuses on what we need to see and show. Photography is a deliberate attempt to show the unreal conditions and building a “reality” out of gaze. The earlier postcolonial representations





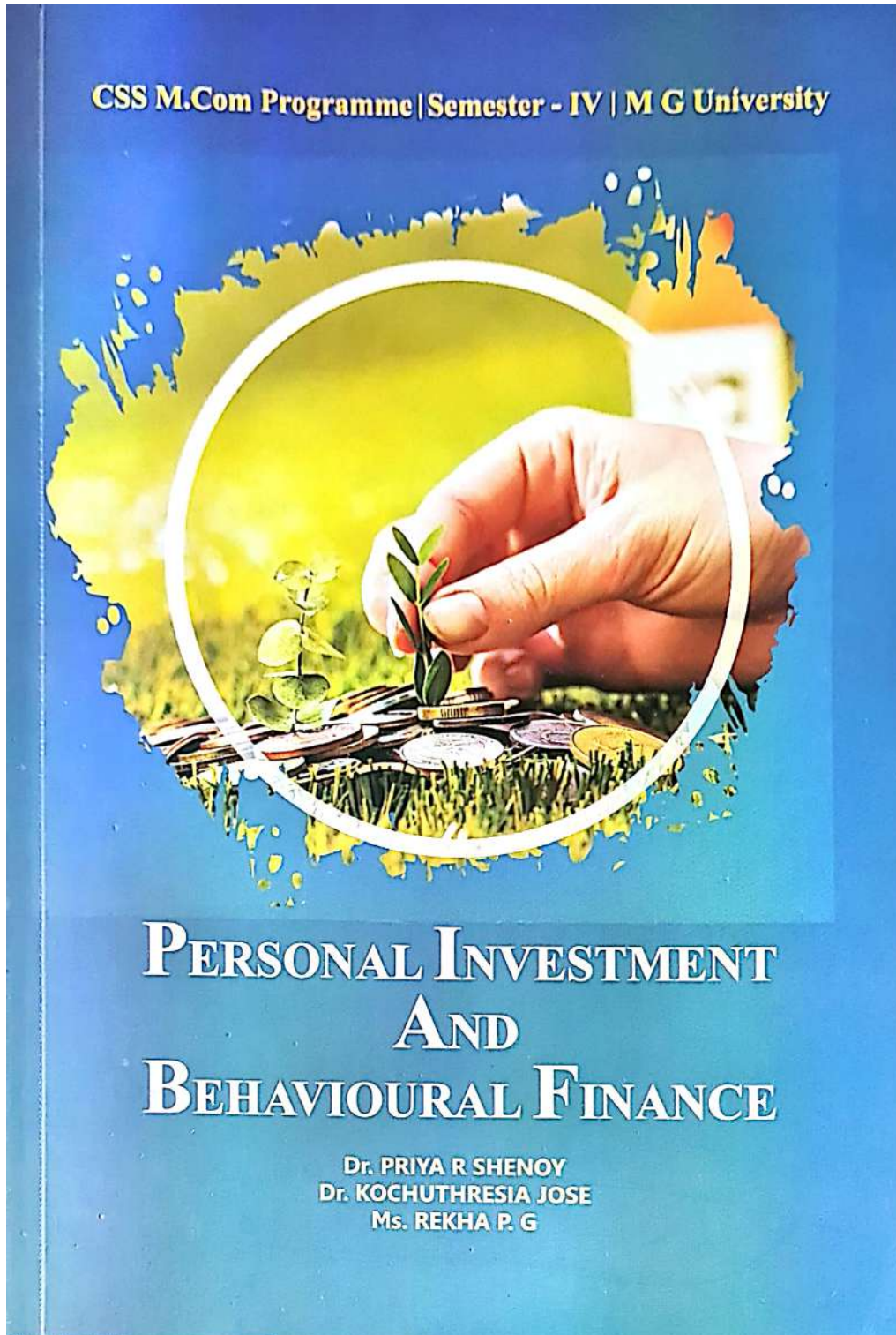
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



CSS M.Com Programme | Semester - IV | M G University

PERSONAL INVESTMENT AND BEHAVIOURAL FINANCE

Dr. PRIYA R SHENOY
Dr. KOCHUTHRESIA JOSE
Ms. REKHA P. G

Scanned with OKEN Scanner





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechochincollege.edu.in

email: email@thechochincollege.edu.in

Chapter

2

Banking in Times of COVID-19 Pandemic and Way Ahead

Ashitha A.B.

Post Graduate and Research Department of Commerce, The Cochin College, Kochi, Kerala.

Dr. Anu L.

Assistant Professor, Post Graduate and Research Department of Commerce, The Cochin College, Kochi, Kerala.

Abstract

The world is now witnessing one of the severe health calamities of the century. The COVID-19 pandemic outbreak in Wuhan, China has been spreading all over the world, distressing millions of lives globally. Corona virus is an infectious disease, which spread from one person to another through droplets produced from the respiratory system of infected people. In order to prevent the spread of this pandemic, countries around the world adopted several measures like social distancing; compelling people to stay home through lock downs, restriction to cross boarder movements...etc.

Banking sector is the backbone of every country and plays an important role in the lives of people by providing them with financial services. Being the life line of economy, they need to remain operational during the pandemic period also. Like any other sectors of the economy banking sector is also affected by COVID-19, and banks need to undergo some changes in the long run in the way they function. It is in this back drop the present study concentrated on the impact of corona pandemic on the banking sector, the measures adopted by the central bank of country to tackle the challenges and way ahead for banking sector.

Keywords: COVID-19 Pandemic, Banking Sector, Impact, Reserve Bank of India, Way Ahead

Introduction

COVID-19 pandemic is one of the biggest health and economic crisis the world has ever seen. The disruptions brought by the pandemic have impacted all the sectors of the global economy. The world is battling against the novel corona virus outbreak. India is also affected





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in

12

COVID-19: TIMELINE AND IMPACT ON INDIAN ECONOMY

Ashitha A.B. & Dr. Anu L.

Abstract:

The world is now going through one of the severe health calamities of the century. The Coronavirus started in Wuhan, China rapidly spreading all over the world and distressing millions of lives. Now India becomes the second country, with worst hit of COVID-19. The present chapter discusses and tracking the crucial moments of corona outbreak in India from January to October 2020 and its impact on Indian economy.

Keywords: COVID-19, Timeline, Impact, Indian economy

INTRODUCTION:

We are living in a pandemic period. The World Health organization declared covid-19 as a pandemic. The COVID-19 stands for corona virus disease 2019. The covid-19 pandemic is caused by severe acute syndrome Coronavirus². Coronavirus is an infectious disease, which is spread from one person to another through droplets produced from the respiratory system of infected people. The wide spread of COVID-19 pandemic affected millions of people and distressed their lives. The different sectors of the economy also affected adversely.

The first COVID-19 case reported in India on January 30, 2020. Nearly 9 months since the first COVID-19 case was





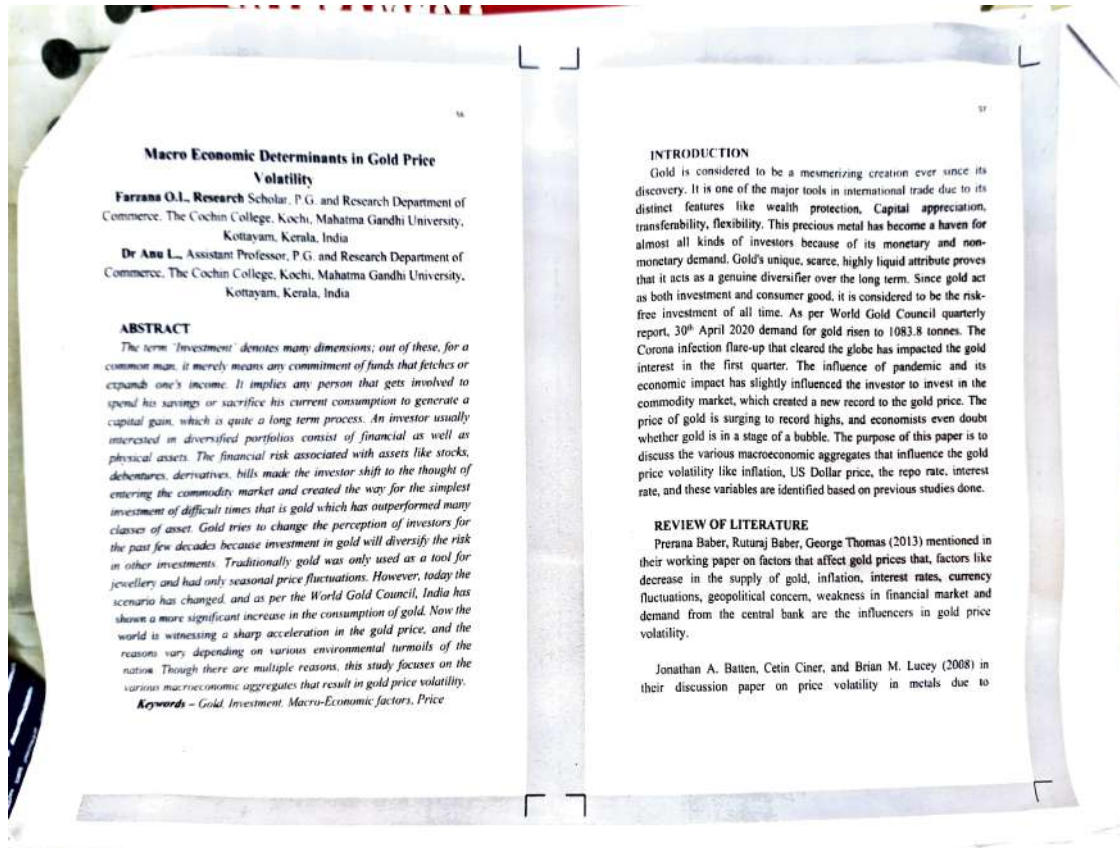
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechoinchcollege.edu.in

email: email@thechoinchcollege.edu.in





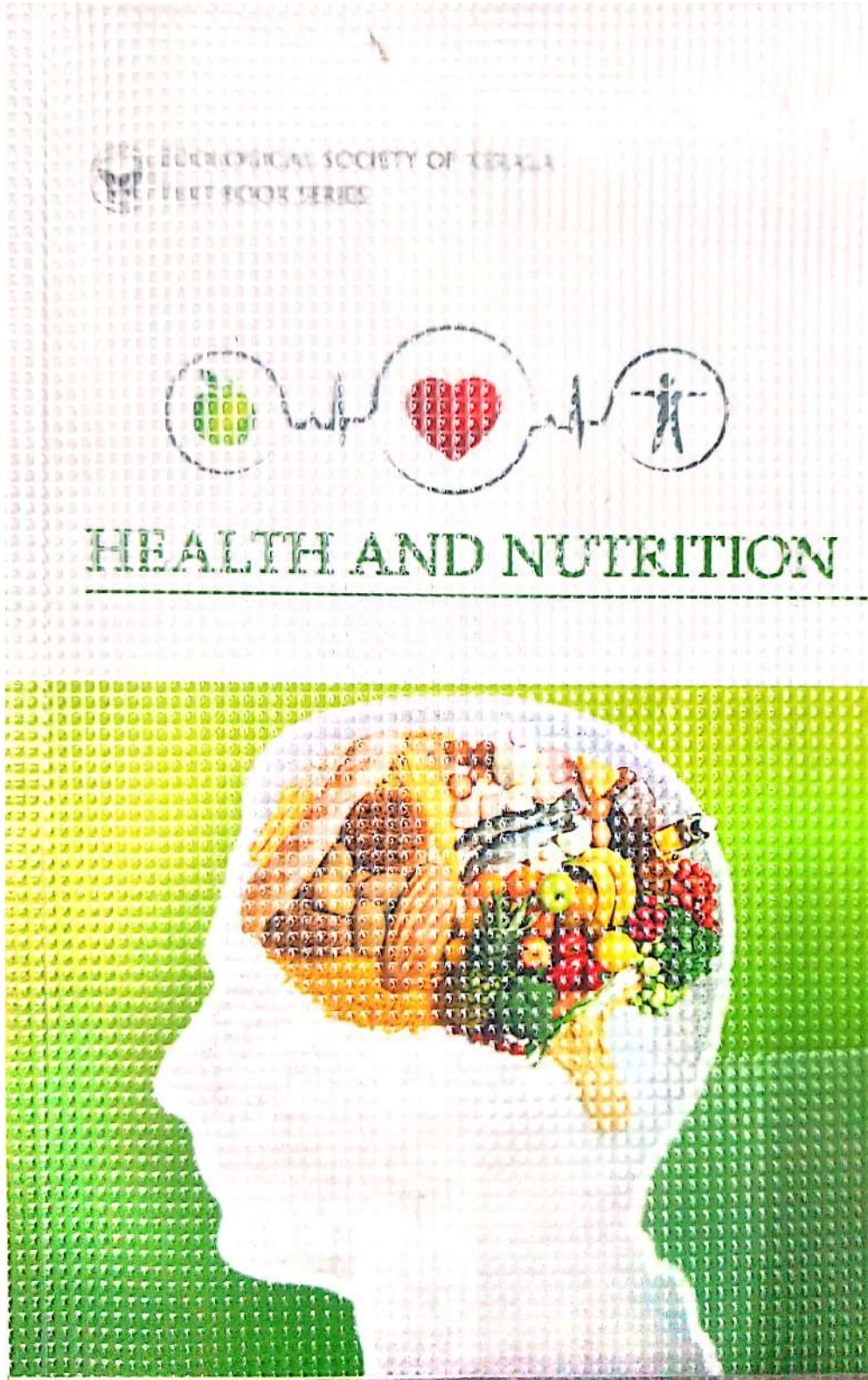
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





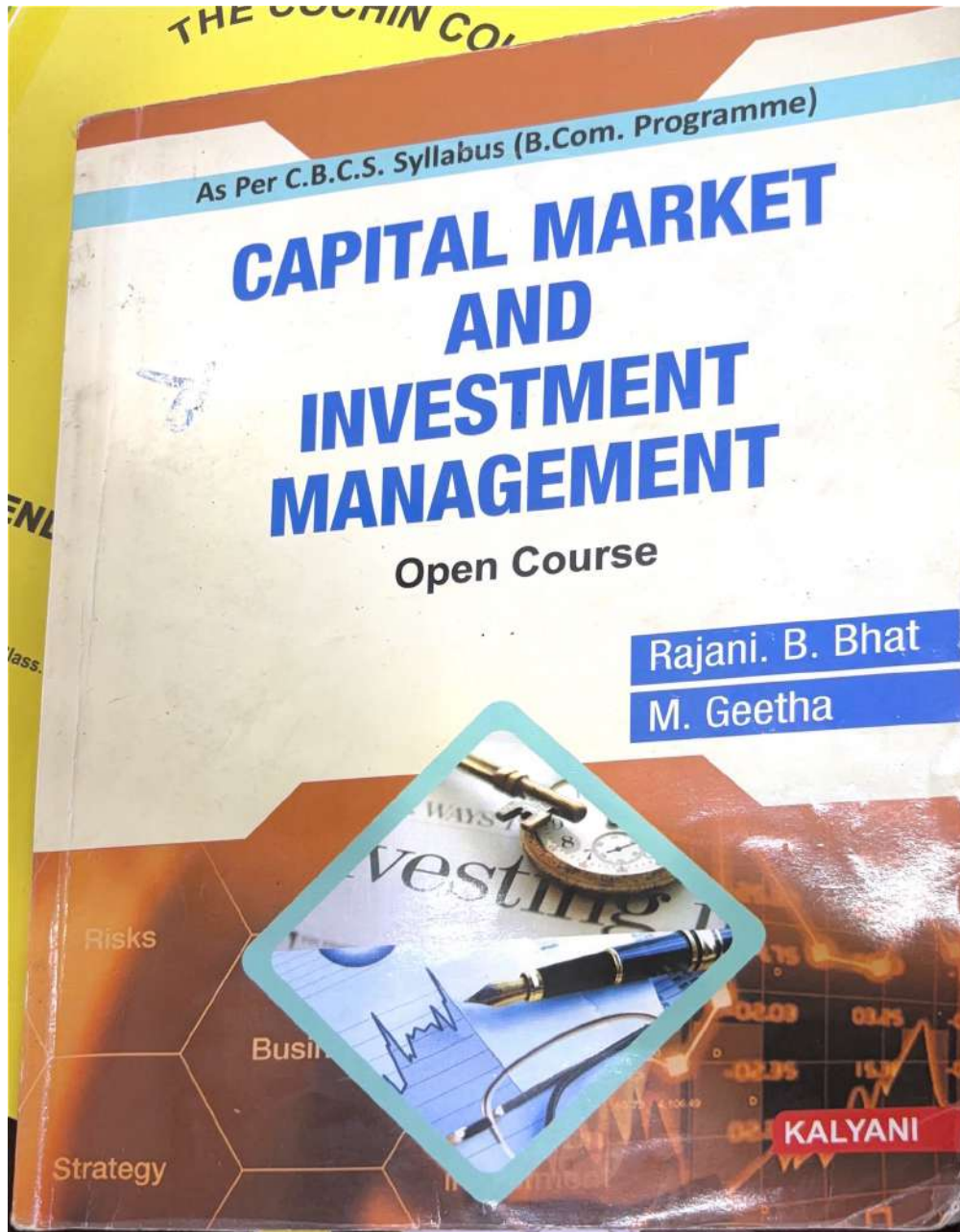
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





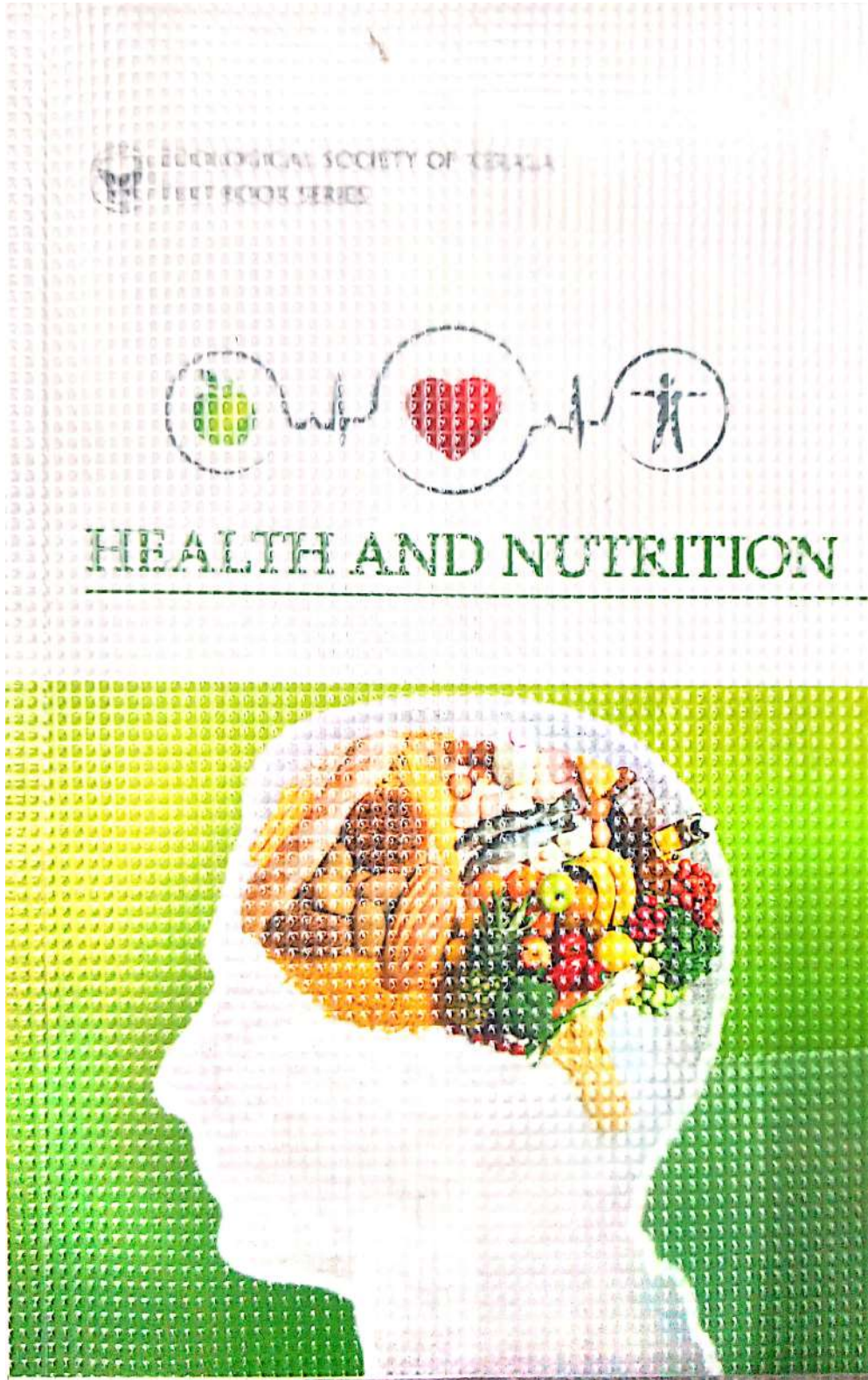
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





THE COCHIN COLLEGE

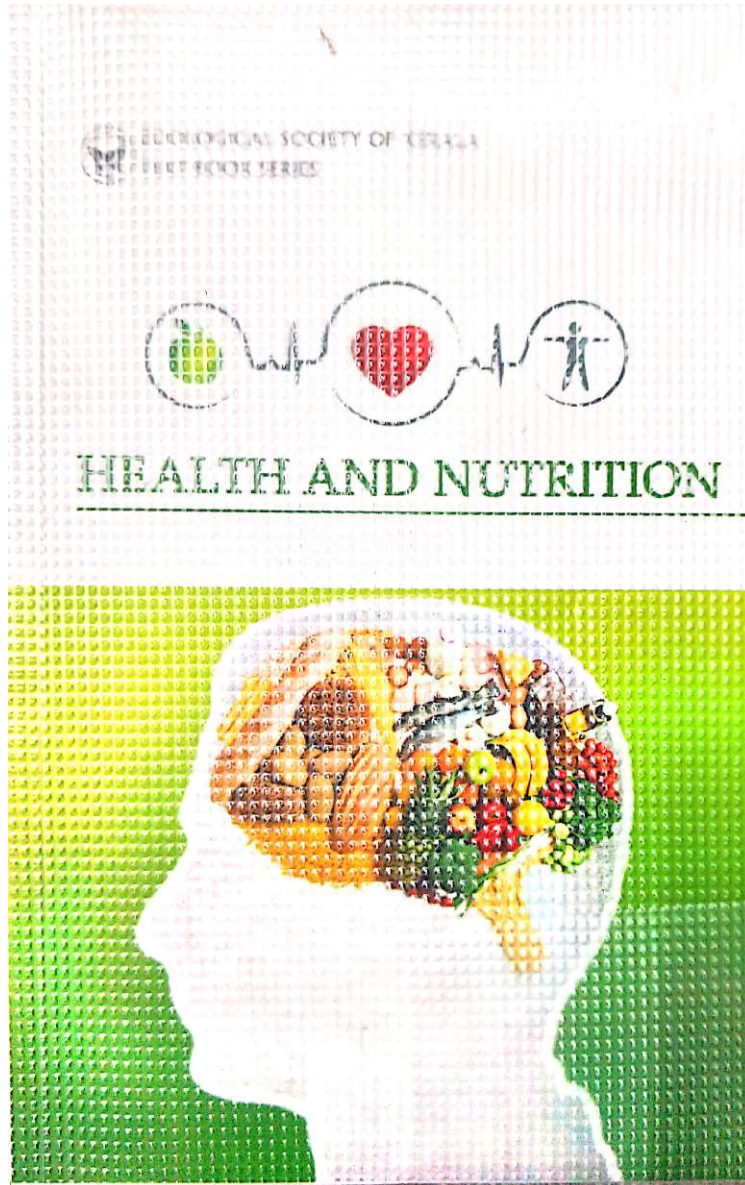
KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

5 Cover pages of the books





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

BBAS - 31

புதிதான நிர்வாகப் பாடப்பொருள்
அறிவுரைகள் எம்மீஸ்டர் மீஸ்டர்

**B.B.A. - SECOND YEAR
(Semester - 3)**

ORGANIZATIONAL BEHAVIOR

ORGANISATIONAL BEHAVIOUR

SCHOOL OF MANAGEMENT STUDIES
TAMIL NADU OPEN UNIVERSITY
577, ANNA SALAI, SAIDAPET, CHENNAI - 600 015

Name of Programme: BBA

Course Code with Title: BBAS - 31: Organisational Behaviour

Curriculum Design: Dr. S. Subramanian
Professor & Director,
School of Management Studies,
Tamil Nadu Open University, Chennai - 600015

Course Writer: Dr. R. Tamilisaran
Associate Professor,
School of Management Studies,
Tamil Nadu Open University, Chennai - 600015

Content Editor: Dr. N. Saranya Devi
Assistant Professor,
School of Management Studies,
Tamil Nadu Open University, Chennai - 600015

Course Coordinator: Dr. Rajani B. Shat
Assistant Professor,
Department of Commerce,
The Cochin College, Kochi - 680002

October, 2022 (First Edition)
ISBN No: 978-83-5736-175-8

TNOU, 2022. 'Organisational Behaviour' is made available under a Creative Commons Attribution-Share Alike 4.0 License (International).
<https://creativecommons.org/licenses/by-sa/4.0/>

All rights reserved. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from the Tamil Nadu Open University. Course Writer is the sole responsible person for the contents presented in the Course Materials.

Further information on the Tamil Nadu Open University Academic Programmes may be obtained from the University Office at 577, Anna Salai, Saidapet, Chennai-600 015 (or) www.tnou.ac.in

Printed by:



Mendula Menon
Mrudula Menon V.
Principal-in-Charge
The Cochin College



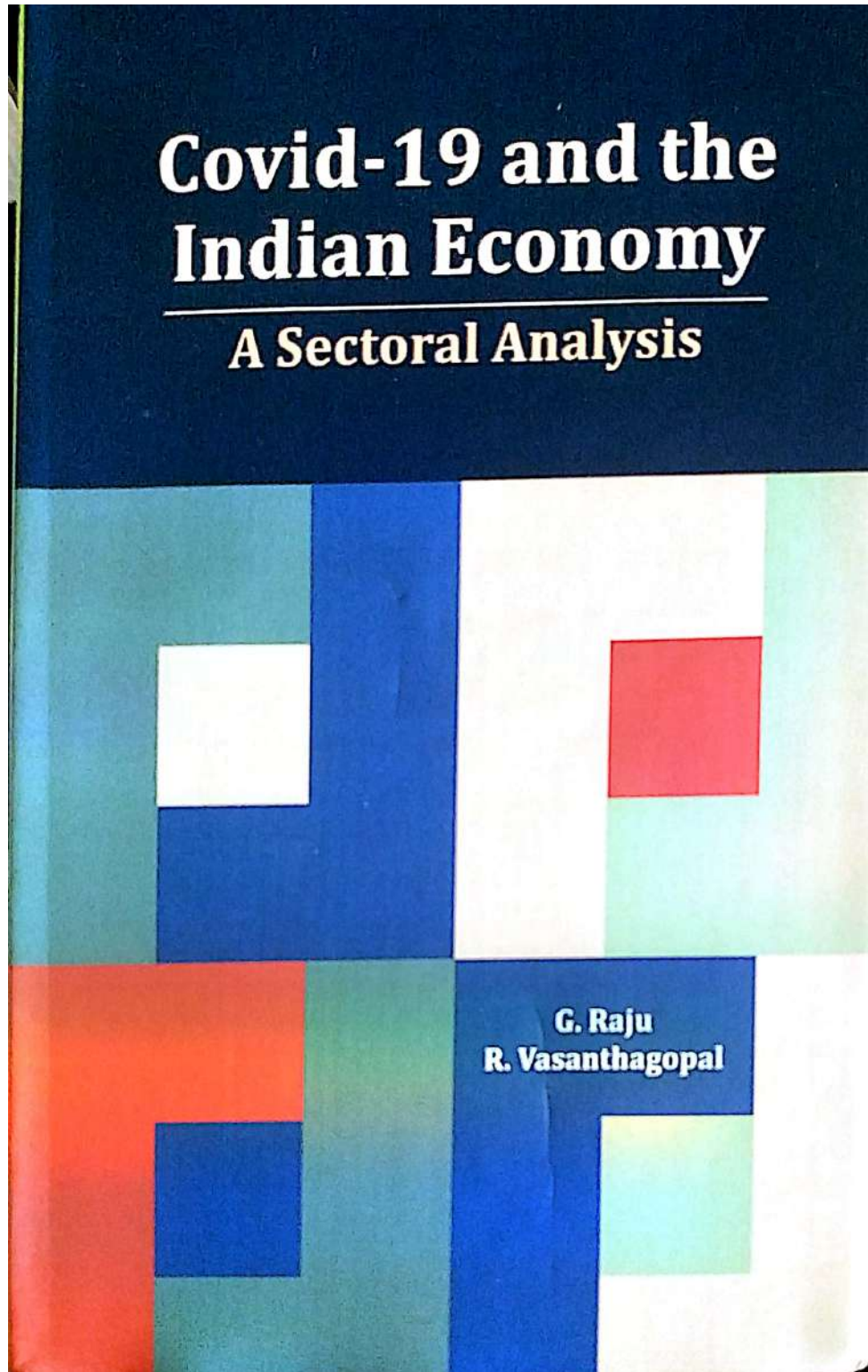
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



Scanned with CamScanner





THE COCHIN COLLEGE

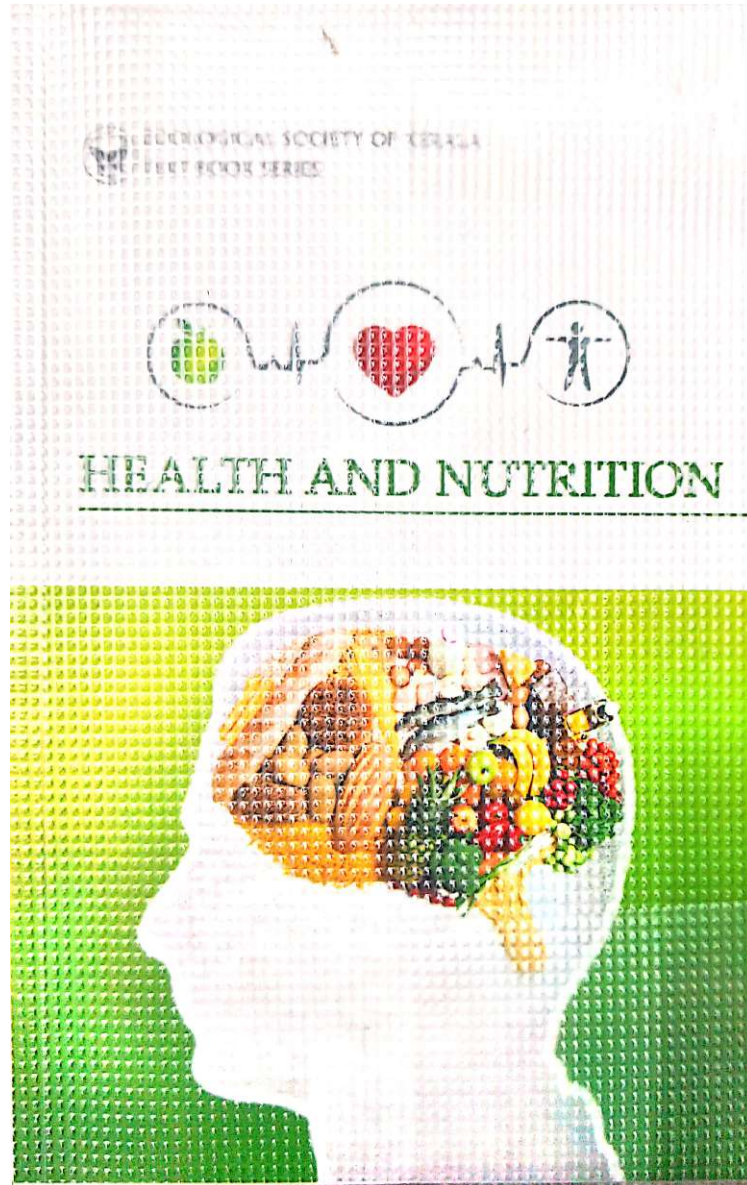
KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

6 Cover pages of the books





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thechochincollege.edu.in

email: email@thechochincollege.edu.in



Mrudula Menon V.
Mrudula Menon V.
Principal-in-Charge
The Cochin College



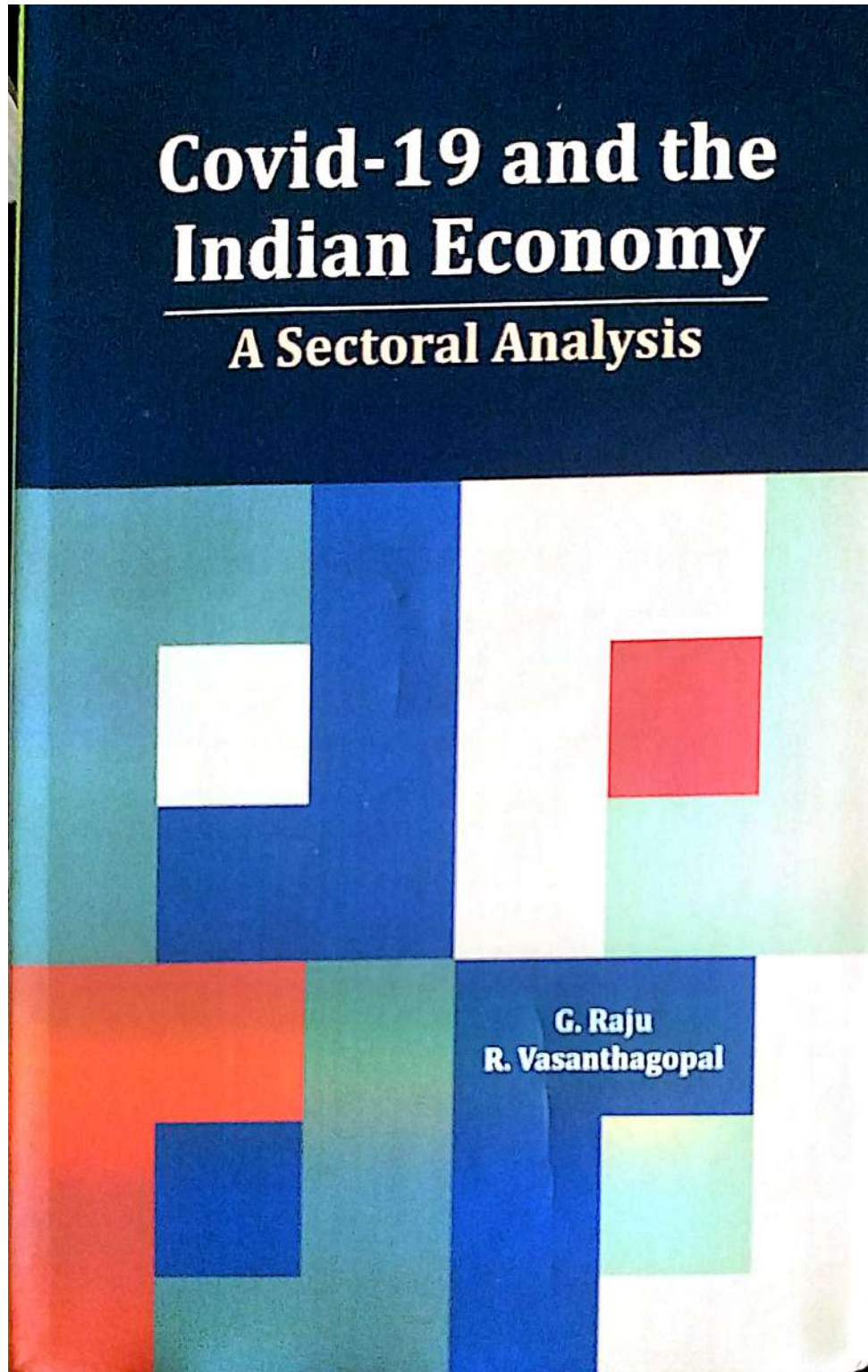
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



Scanned with CamScanner





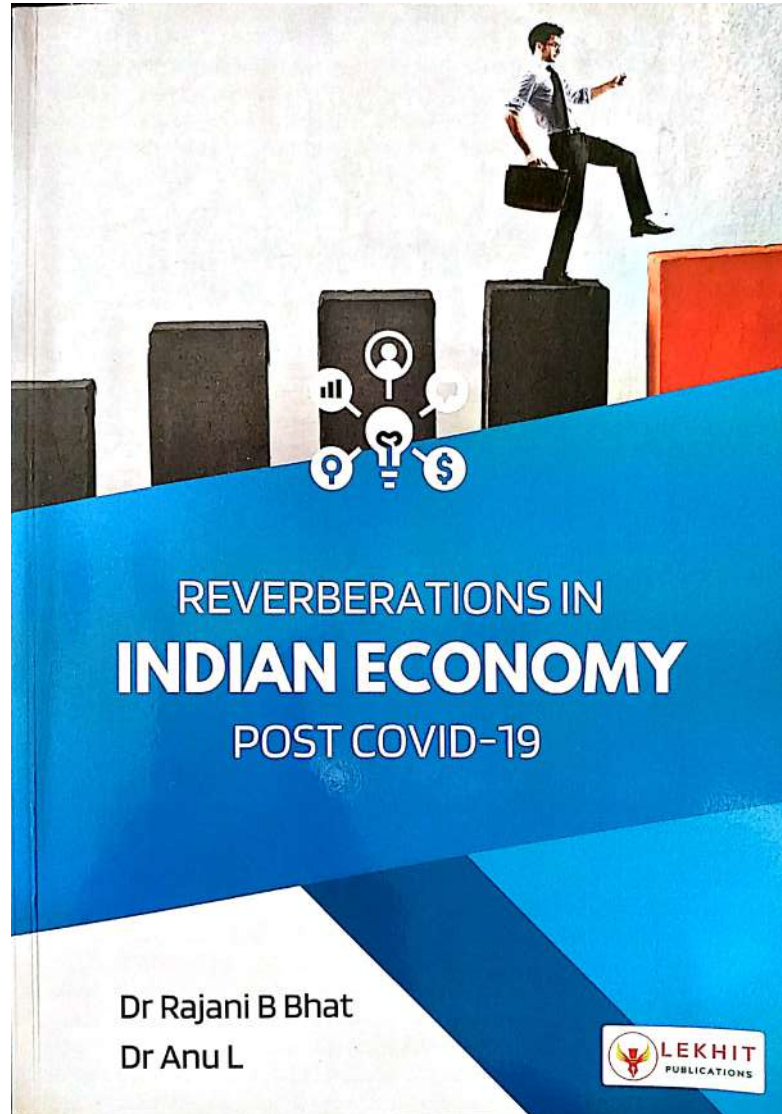
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





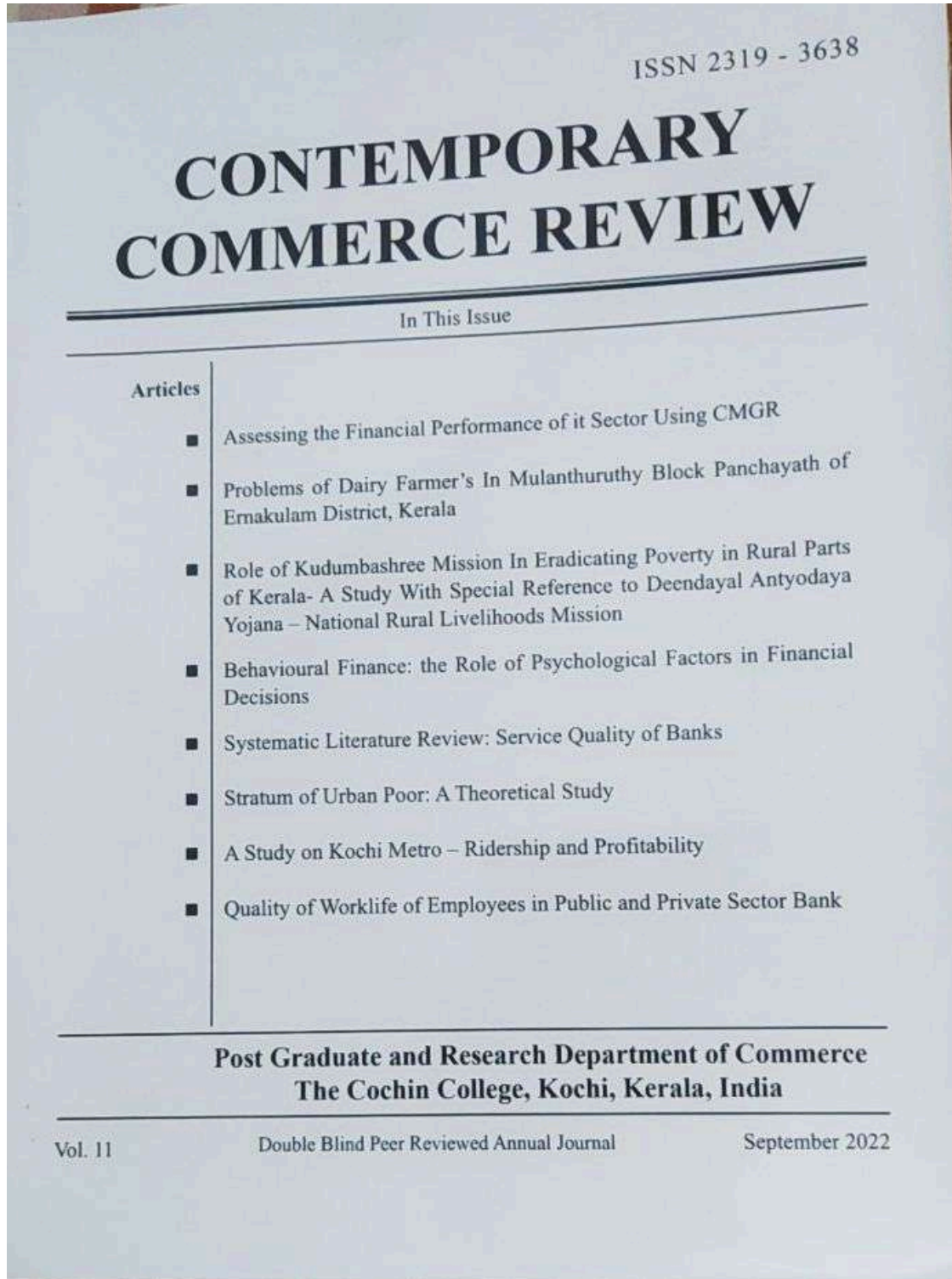
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





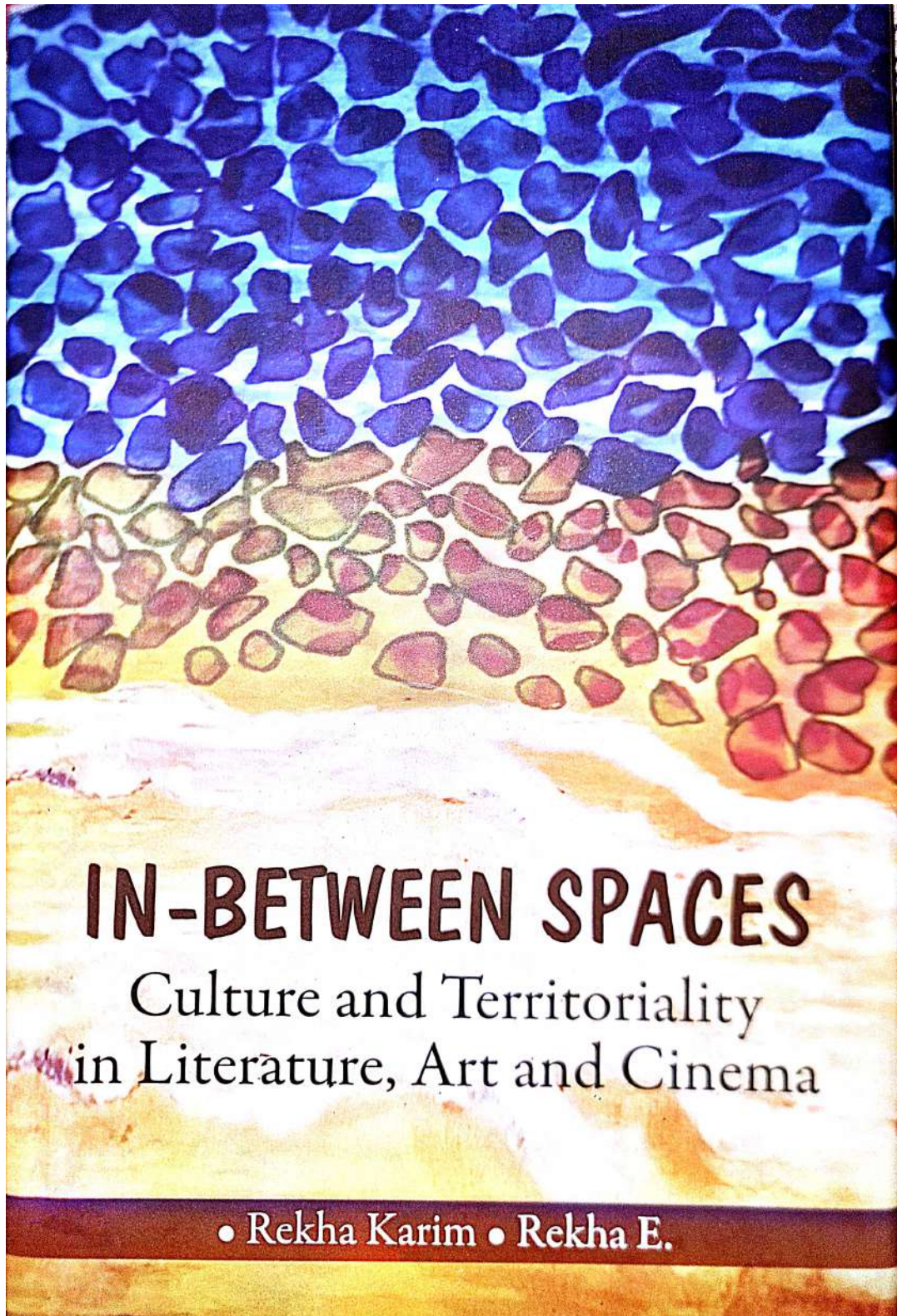
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



IN-BETWEEN SPACES

Culture and Territoriality
in Literature, Art and Cinema

• Rekha Karim • Rekha E.





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



मैत्रेयी पुष्पा

शृजन-कर्म की विकास यात्रा

डॉ. कविता वी. राजन





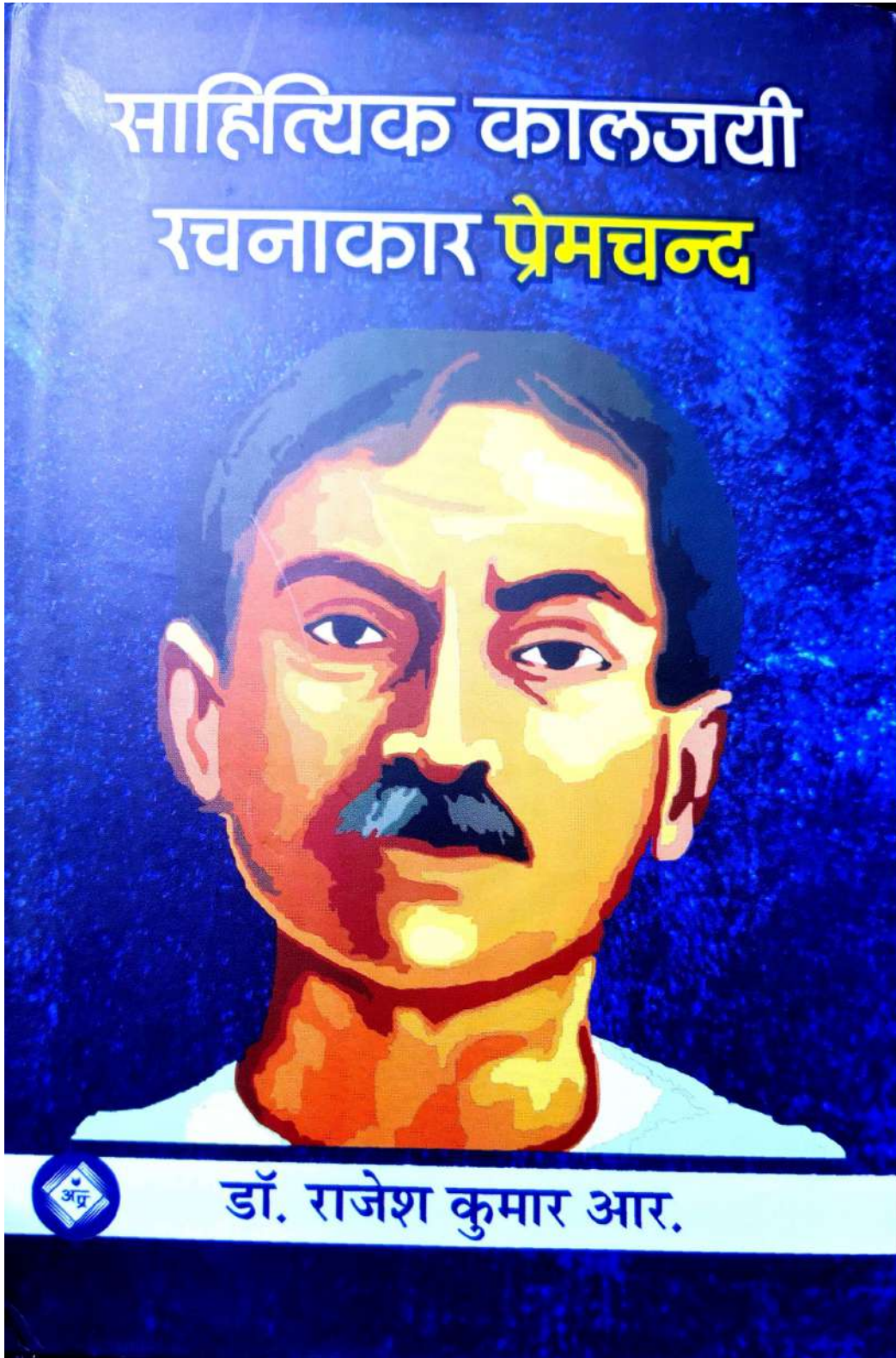
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





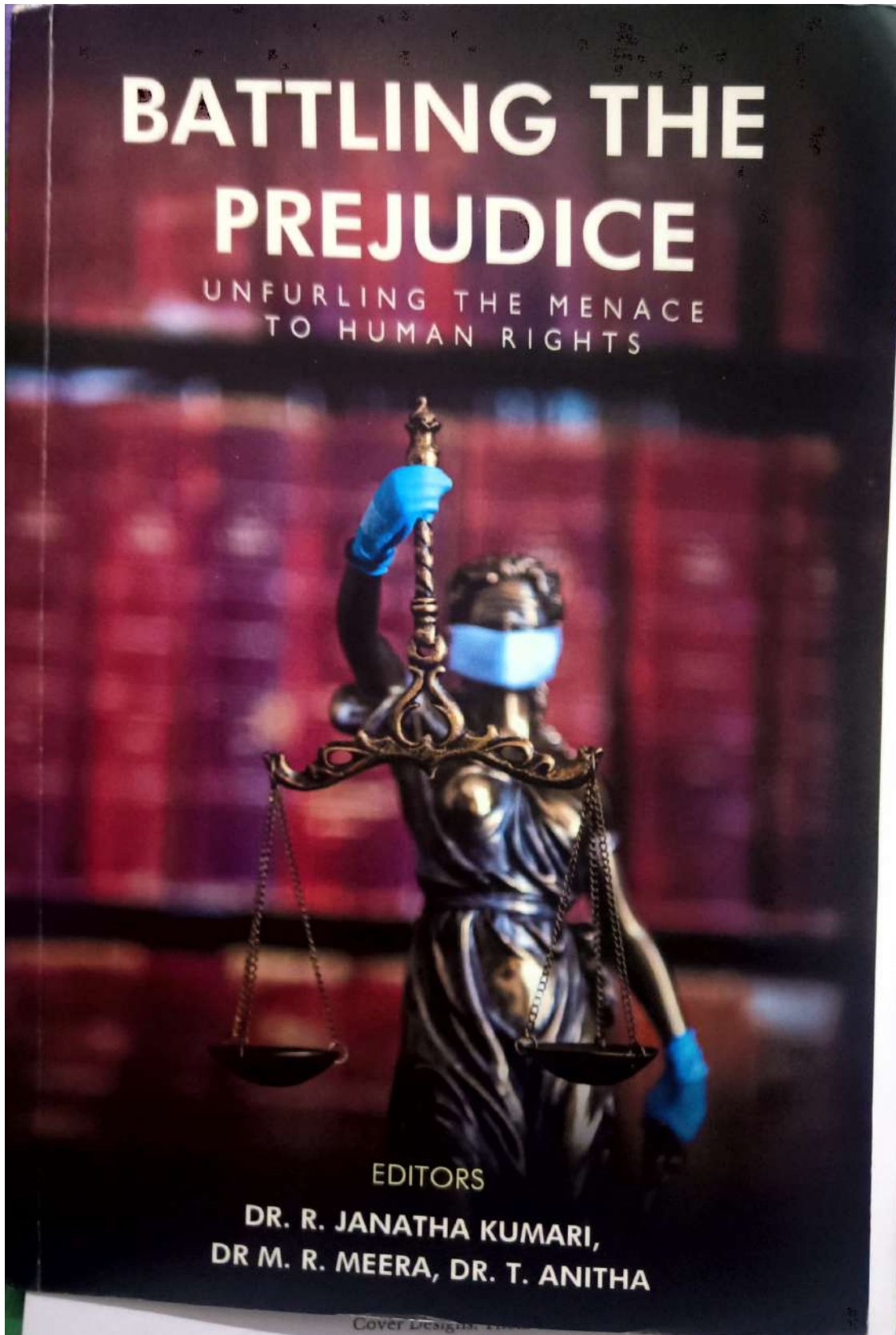
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in

GOODS AND SERVICES TAX



Dr. RAJANI B BHAT

Dr. V. DHAMODHARAN





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in

GOODS AND SERVICES TAX



Dr. RAJANI B BHAT
Dr. V. DHAMODHARAN





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

GOODS AND SERVICES TAX

GST

Dr. RAJANI B BHAT
Dr. V. DHAMODHARAN





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

Published by

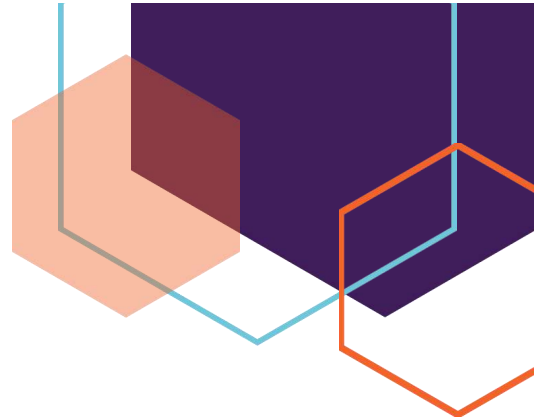


www.notpress.org

World Record Approved by



www.nobleworldrecords.net



IMPACT OF COVID-19 ON THE BUSINESS SECTOR

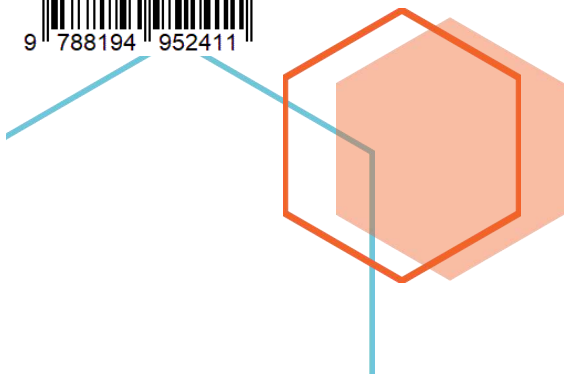
Chief Editor
Dr. M.Thiagarajan

IMPACT OF COVID-19 ON THE BUSINESS SECTOR (1st edition) (ISBN 13: 978-81-949524-1-1),
PUBLISHED BY Non-Olympic Times, New World Record Approved by NOBLE WORLD RECORDS
(Record No.NWR/2043/2021)

ISBN 978-81-949524-1-1



9 788194 952411





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

ISBN: 978-81-952529-1-6

Recent Advancements and Research in Biological Sciences

First Edition



Editors

**Dr. R.B. Tripathi,
Dr. P. Vijaya,
Dr. Priya Senan V,
Dr. Sona A**

**Thanuj International Publishers
Tamil Nadu, India**





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

Recent Advancements and Research in Biological Sciences | 2021
ISBN: 978-81-952529-1-6

A Study on the effect of plant derived extracts on the Oviposition of *Aedes aegypti*.

Dr. Smitha N.R^{1*}, Dr. Manju V Subramanian²,
Dr. Vineeth Kumar T V³ and Jayasree S⁴

^{1,2,3,4} Dept. Of Zoology, The Cochin College, Kochi-682005

*Corresponding author: Dr. Smitha N.R, E-mail: smithasreeji@gmail.com

Abstract

Mosquitoes are common in tropics and abundant in damp and marshy places. They act as vectors for many disease causing viruses and parasites. Viral diseases, such as yellow fever, dengue fever, and Chikungunya, Zika are transmitted by *Aedes aegypti*. *Aedes aegypti* is a container breeder and eggs are laid on damp surfaces such as in tree holes, containers, flower vases etc. *Aedes* thrive in urbanized areas i.e., in close contact with people making them a successful vector. In this study 14 ovitraps having different plant extracts such as *Setaria viridis* (Grass), *Piper aduncum* leaves, pepper corns, *Murraya koenigii* (Curry leaf) *Azadiracta indica* (Neem), Eucalyptus oil, Lemon grass oil etc. were evaluated for studying the Ovipository activity of *Aedes aegypti*. Ovitrap were provided with a paddle for laying the eggs. It was kept undisturbed and was observed regularly and the number of eggs was counted weekly. Studies have shown that the oviposition activity of *Aedes aegypti* was more in water blended with Pepper Corns (29%) followed by *Setaria viridis* (26%) and *Murraya koenigii* (10%). Ovipository activity of *Aedes* was less in lemon grass oil and *Piper aduncum* leaves (1%), *Azadiracta indica*, and eucalyptus oil (2%) respectively. In this study it was observed that Pepper corn and grass leaves worked as an attractant to the ovitrap whereas Eucalyptus oil, lemon grass oil and *Piper aduncum* leaves were found to be an effective repellent for oviposition of *Aedes aegypti*.

Key words: *Aedes aegypti*, Oviposition, plant extracts





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

ISSN 2319 - 3638

CONTEMPORARY COMMERCE REVIEW

In This Issue

Articles

- Perception of Finance Professionals on IFRS Convergence
- Involvement of Children in Digital Marketplace – A Study Focusing Junk Food Industry
- An Empirical Study on CSR Initiatives Undertaken by Select Indian Companies
- Buying Behaviour of Youth Towards Branded Fashion Apparels in Ernakulam City
- Accessing Microcredit in Kerala is Cumbersome?
- Customer Perception towards Online Food Ordering Services: A study with special reference to Edathala Panchayath.
- The Efficiency of Recruitment in Sick Public Sector Units Under the Department of Industries in Kerala State

Abstract of Ph D Thesis

- IT and ITES Industry – A Comparative Study of Kerala And Karnataka
- Total Quality Management of Professional Educational Institutions with special reference to B-Schools in Kerala
- Performance Management Practices of Public and Private Sector Companies in Kerala

Post Graduate and Research Department of Commerce
The Cochin College, Kochi, Kerala, India

Vol. 9

Double Blind Peer Reviewed Annual Journal

September 2020

Scanned by TapScanner





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



Mendula Menon
Mrudula Menon V.
Principal-in-Charge
The Cochin College



THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



PERSPECTIVES ON BUSINESS MANAGEMENT & ECONOMICS Volume II • September 2020

Book Editors

VIJAYA KITTU MANDA

Lead Consultant
Vijay Technologies, Visakhapatnam
Andhra Pradesh, India

DR. NAVEENAN R.V.

Assistant Professor
Koshys Institute of Management Studies (KIMS)
Bengaluru, Karnataka, India

DR. RAJESH RENGASWAMY

Associate Professor & Head
Department of Commerce (IT, Banking & Insurance)
Hindusthan College of Arts & Science, Coimbatore
Tamil Nadu, India

DR. HARMEET MATHARU

Assistant Professor
Department of Commerce (Finance & Marketing)
St. Claret College, Bengaluru
Karnataka, India



Published by

Archers & Elevators Publishing House
Bengaluru, Karnataka, India

ISBN: 978-81-947738-1-8 • Website: www.PBME.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in

RISK AND INVESTMENT MANAGEMENT

VOLUME 1

THE NATIVE TRIBE PUBLICATION

www.TheNativeTribe.org



EDITOR : ANEESHA K SHAJI





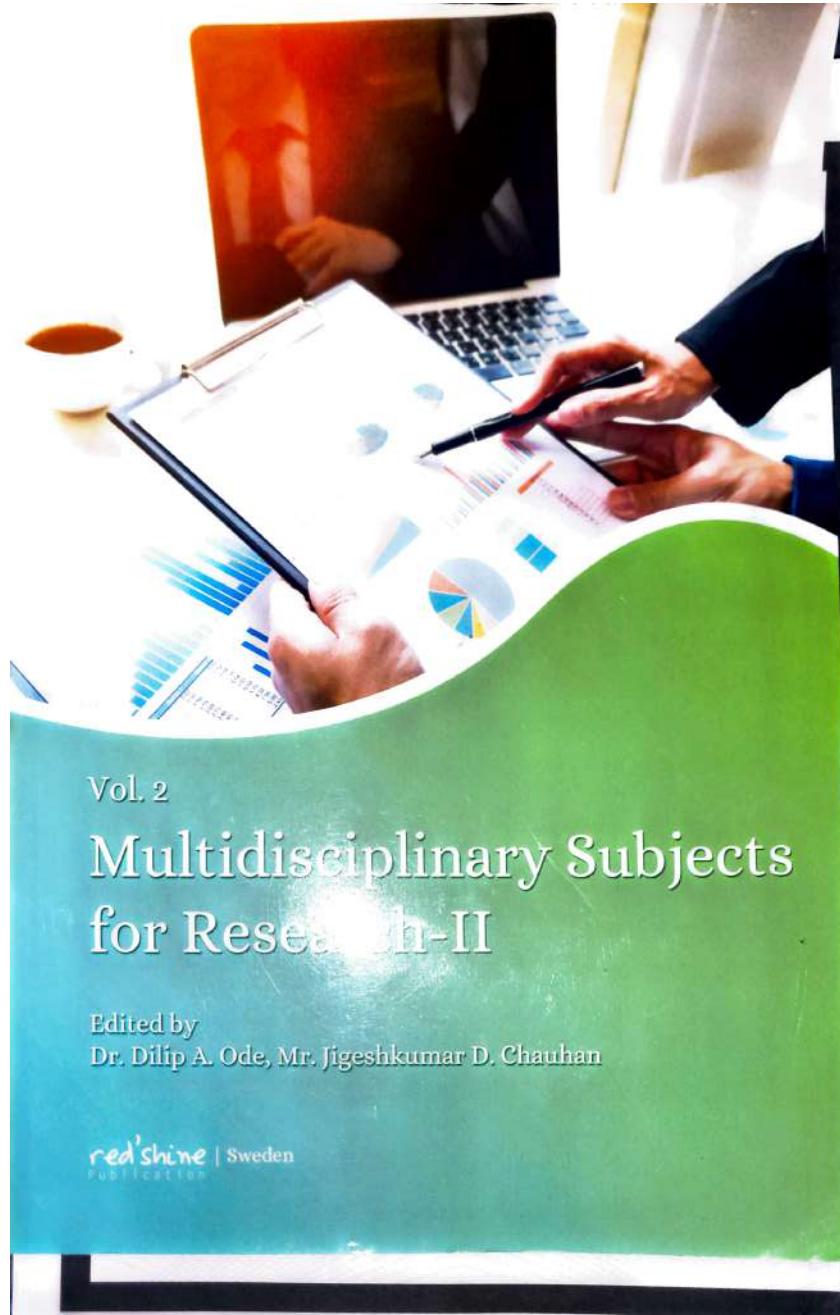
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



Vol. 2

Multidisciplinary Subjects for Research-II

Edited by
Dr. Dilip A. Ode, Mr. Jigeshkumar D. Chauhan

red'shine | Sweden
PUBLICATION





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



मैत्रेयी पुष्पा

शृजन-कर्म की विकास यात्रा

डॉ. कविता वी. राजन





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

ബോധിക

A FOLIO OF WEBINAR PROCEEDINGS

A MULTI-LINGUAL NATIONAL WEBINAR
on
Aesthetics, Existence and Zeitgeist
5, 6 & 7 NOVEMBER 2020

Naipunnya
To reach the unreachable

DEPARTMENT OF LANGUAGES
NAIPUNNYA INSTITUTE OF MANAGEMENT AND INFORMATION TECHNOLOGY (NIMIT), PONGAM, KORATTY, PIN - 680 308

Scanned with CamScanner





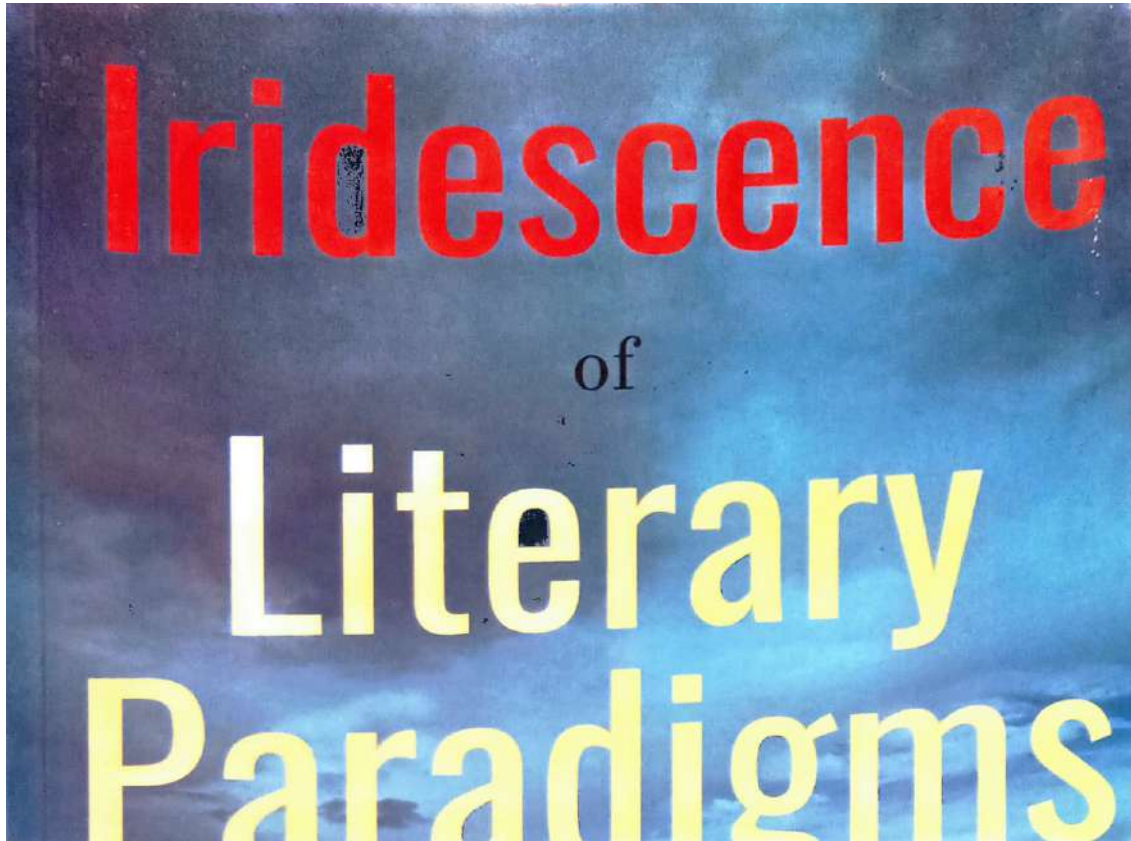
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



Innovations in Plant Science for Better Health: *From Soil to Fork*

Health Benefits of Secondary Phytochemicals from Plant and Marine Sources



Editors Hafiz Ansar Rasul Suleria | Megh R. Goyal



CRC Press
Taylor & Francis Group

APPLE ACADEMIC PRESS



Mrudula Menon V.
Mrudula Menon V.
Principal-in-Charge
The Cochin College



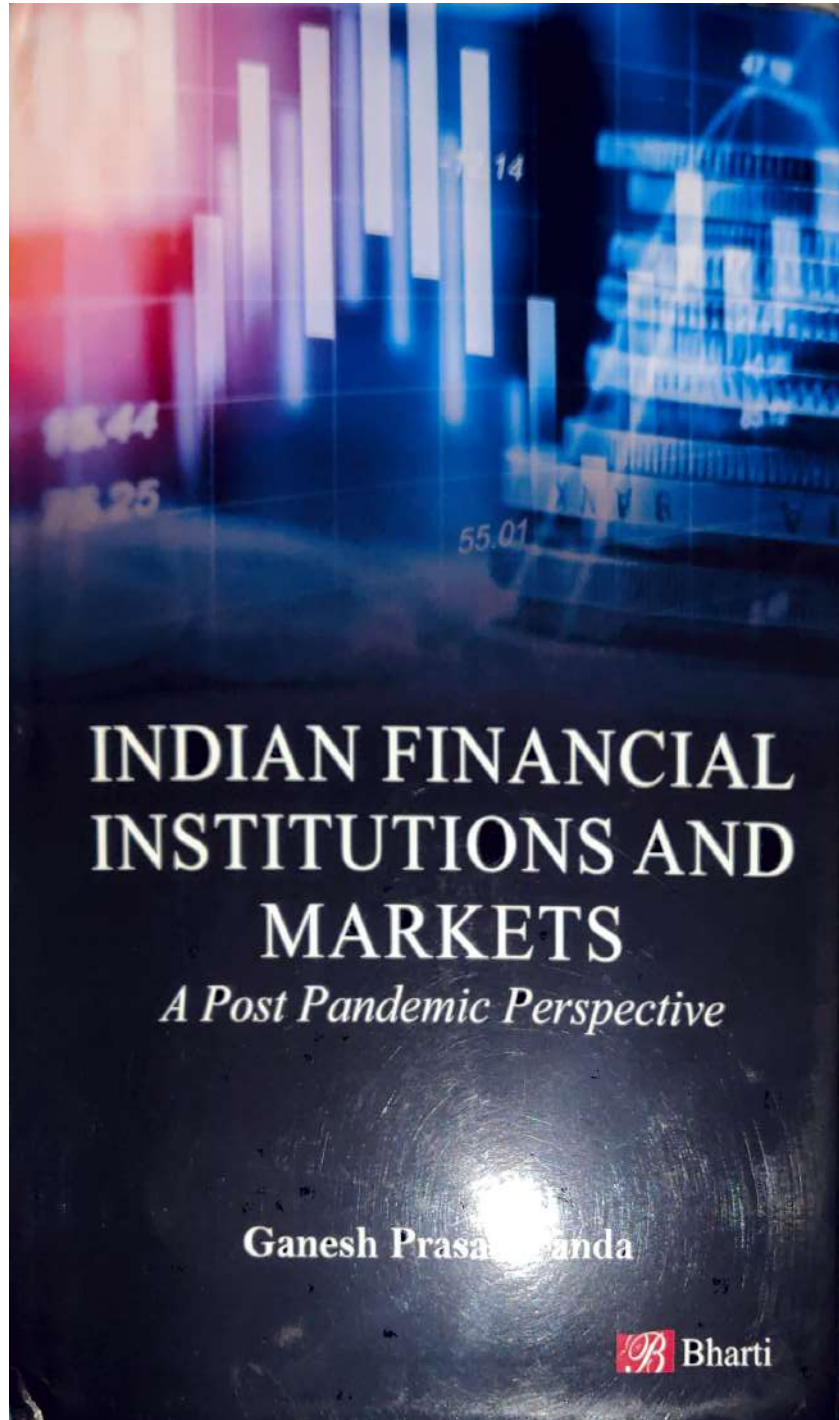
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



INDIAN FINANCIAL INSTITUTIONS AND MARKETS

A Post Pandemic Perspective

Ganesh Prasad Panda

 Bharti





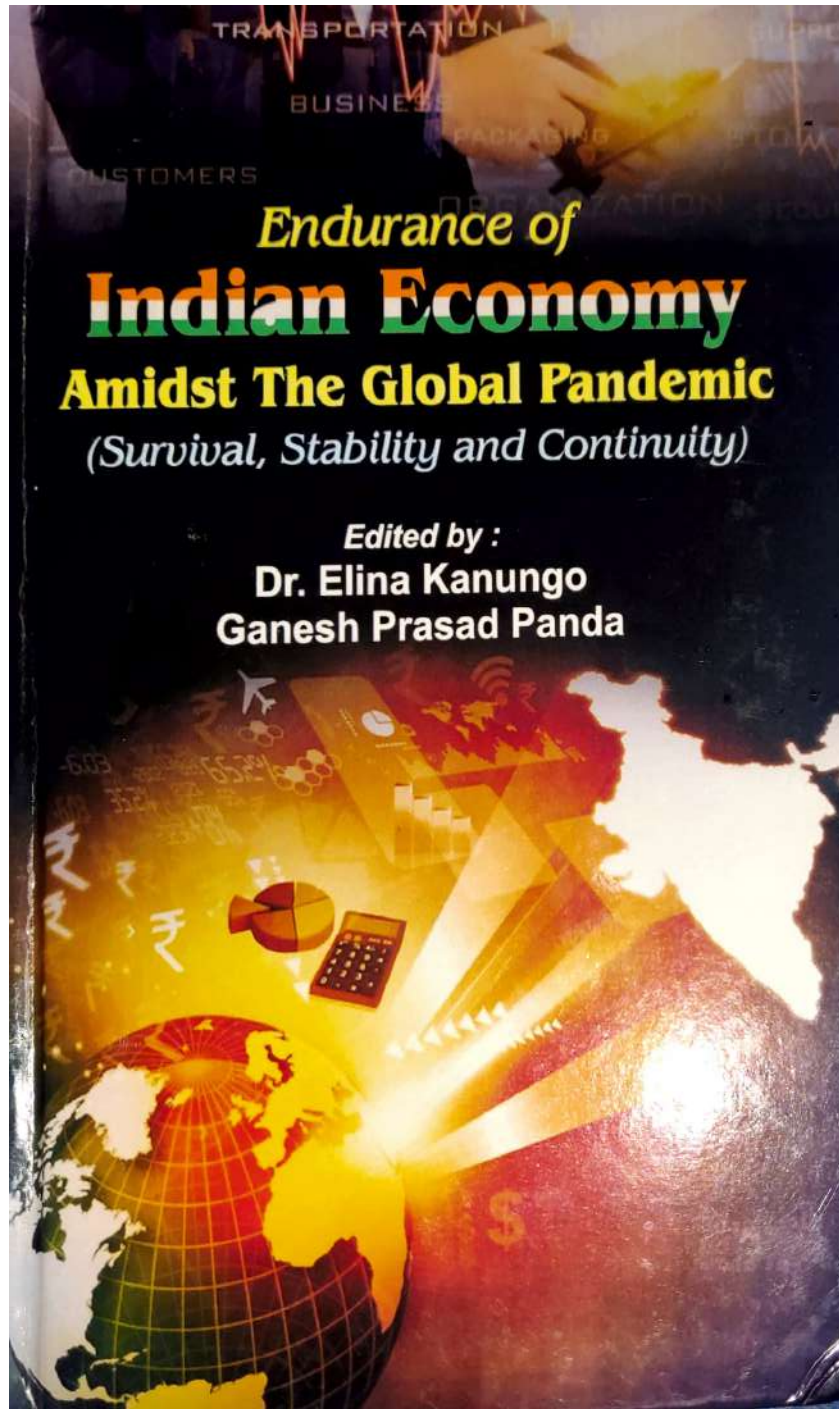
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





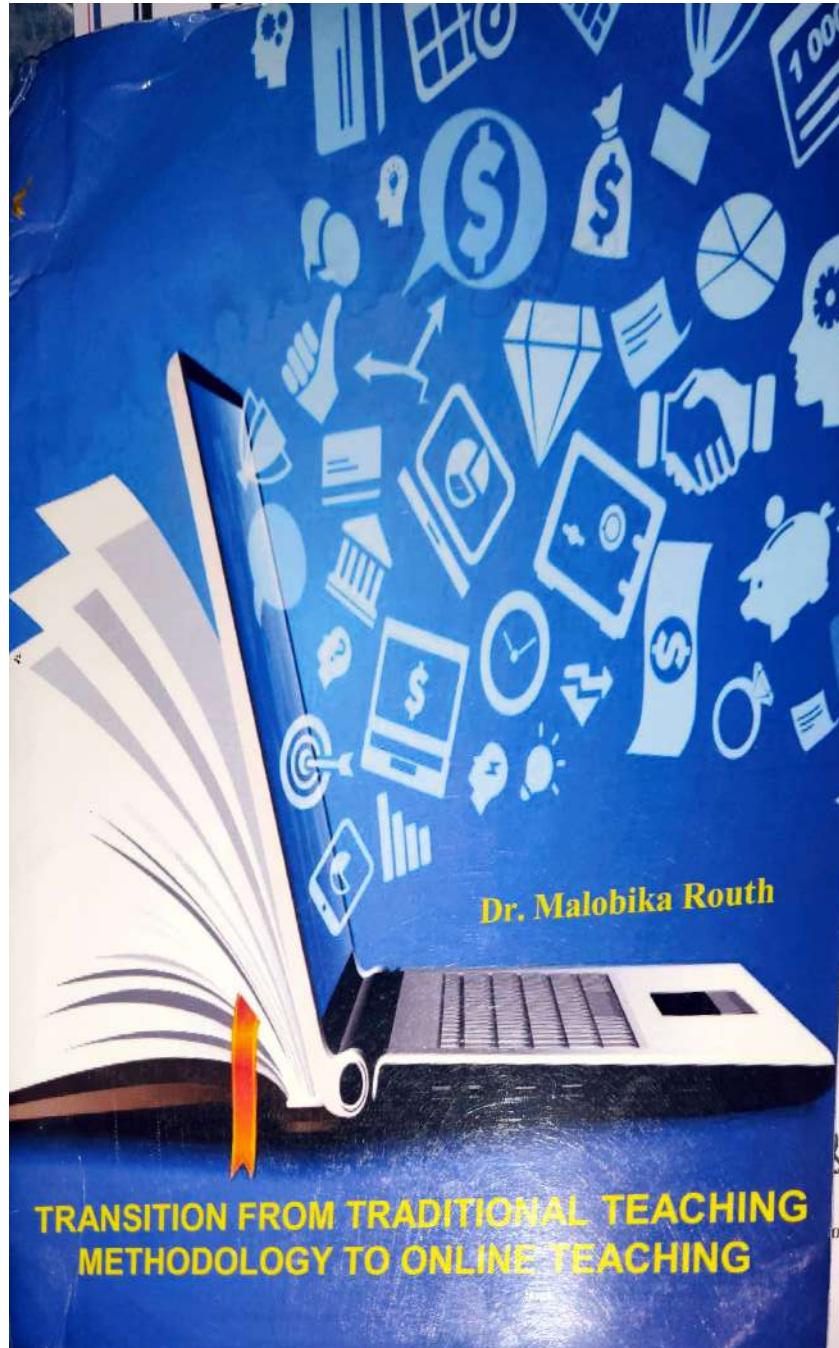
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

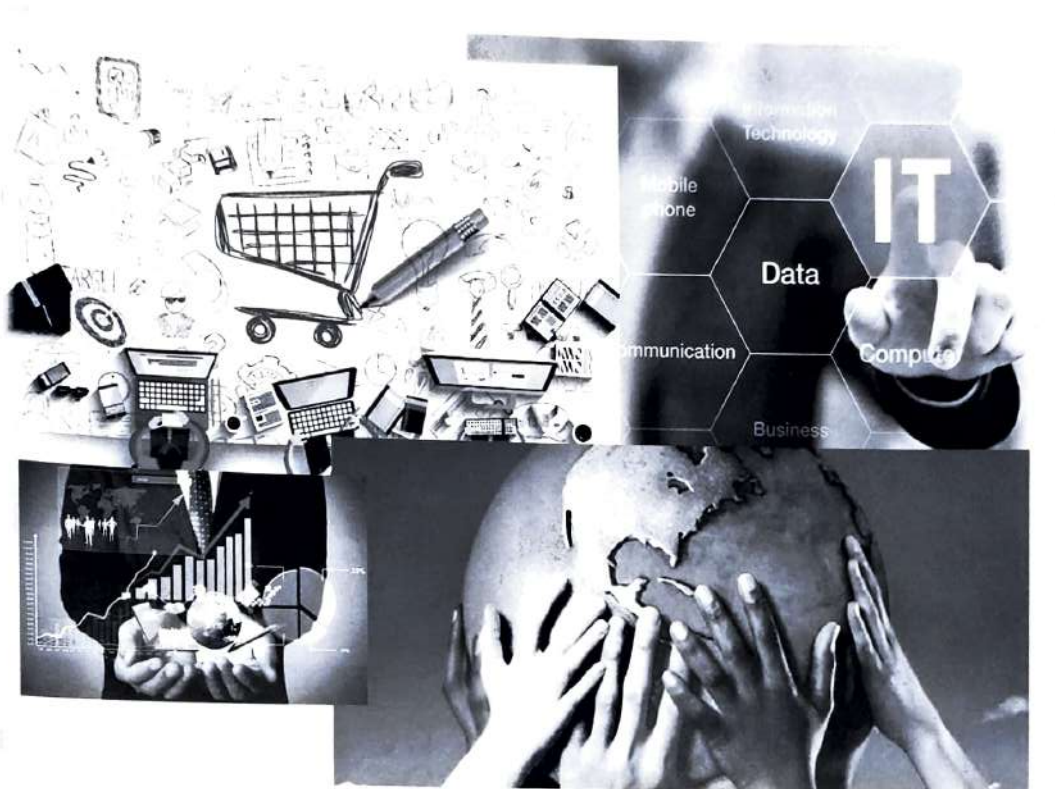
Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

National Press Associates

New Horizons in Commerce, IT & Social Sciences

Volume-1



EDITORS

Dr. Kirandeep Kaur

Dr. B.B Singla

Dr. Priyaka Khanna





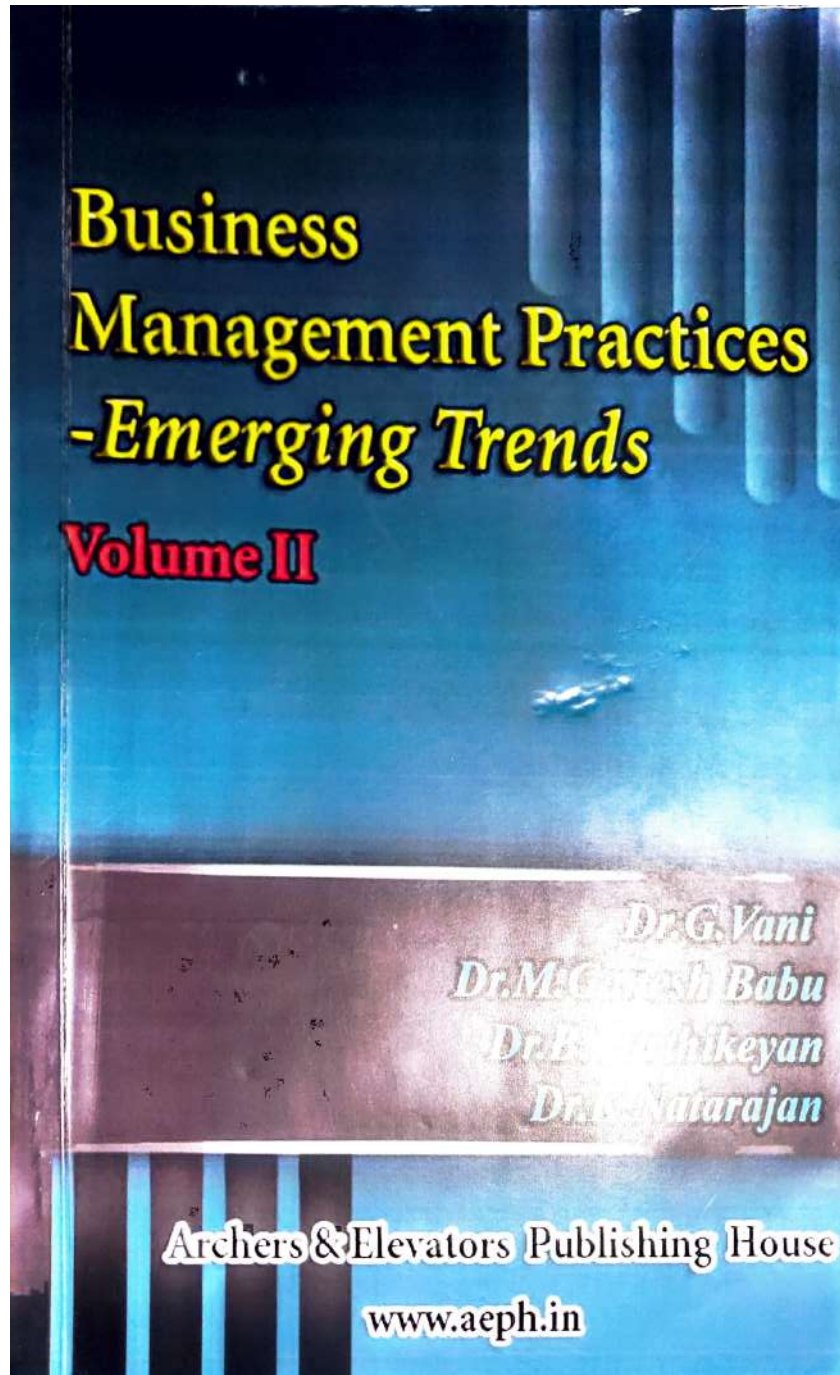
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

As per CBCS Syllabus

Consumer Behaviour



Rekha P.G
Kochuthresia Jose

KALYANI

Scanned by TapScanner





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in

IMPACT OF DERIVATIVES ON PRICE VOLATILITY IN INDIAN STOCK MARKET

Dr. Rajani B. Bhat

Assistant Professor,
Post Graduate & Research,
Department of Commerce
The Cochin College, Kochi - 2, Kerala.
Email: rajanispai@gmail.com

Dr. Suresh V.N.

Associate Professor,
Post Graduate Department of Commerce
Maharaja's College, Ernakulam.
Email: snvichattu@gmail.com



Himalaya Publishing House

ISO 9001:2015 CERTIFIED





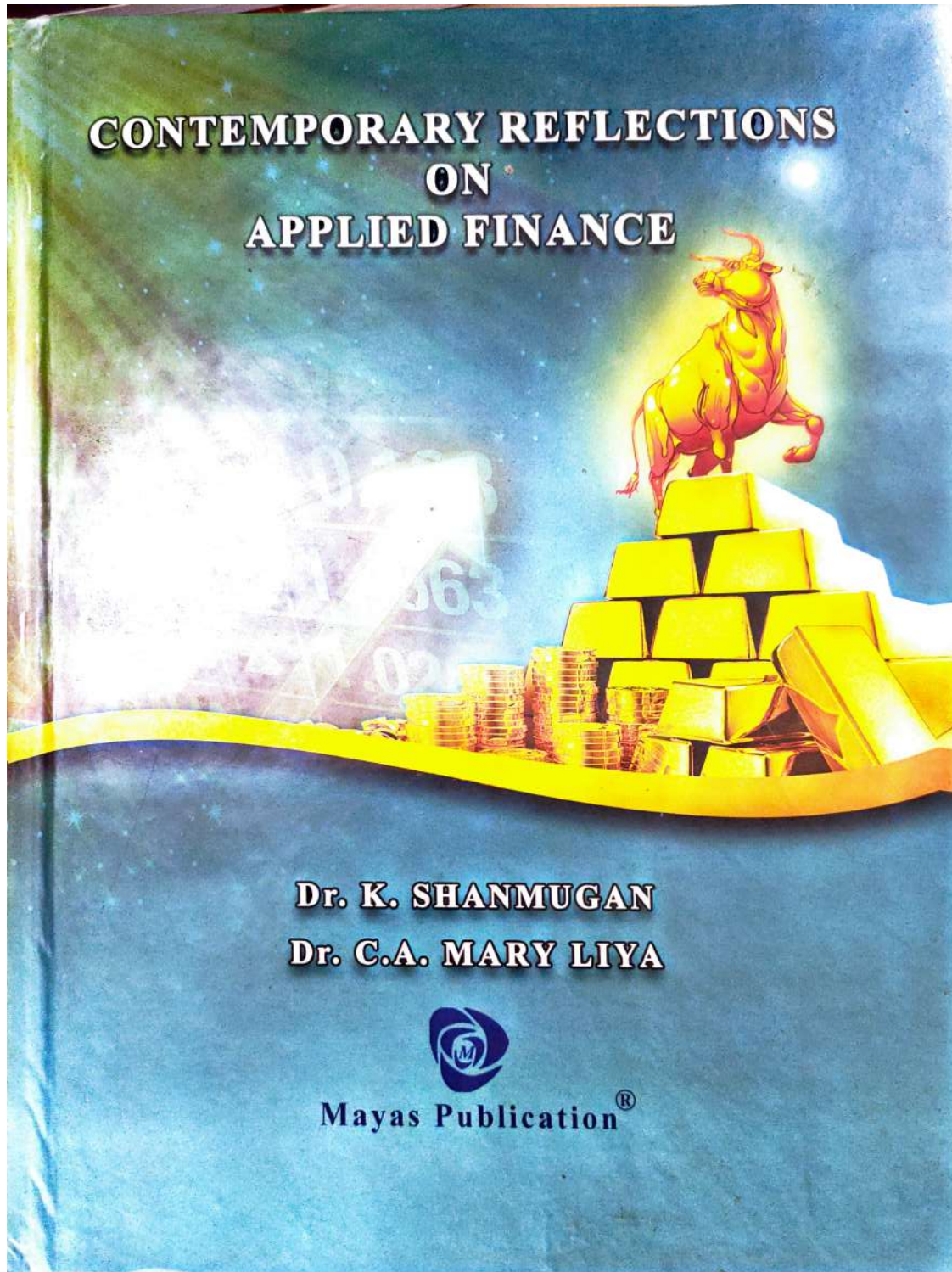
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



CONTEMPORARY REFLECTIONS ON APPLIED FINANCE

Dr. K. SHANMUGAN
Dr. C.A. MARY LIYA



Mayas Publication®





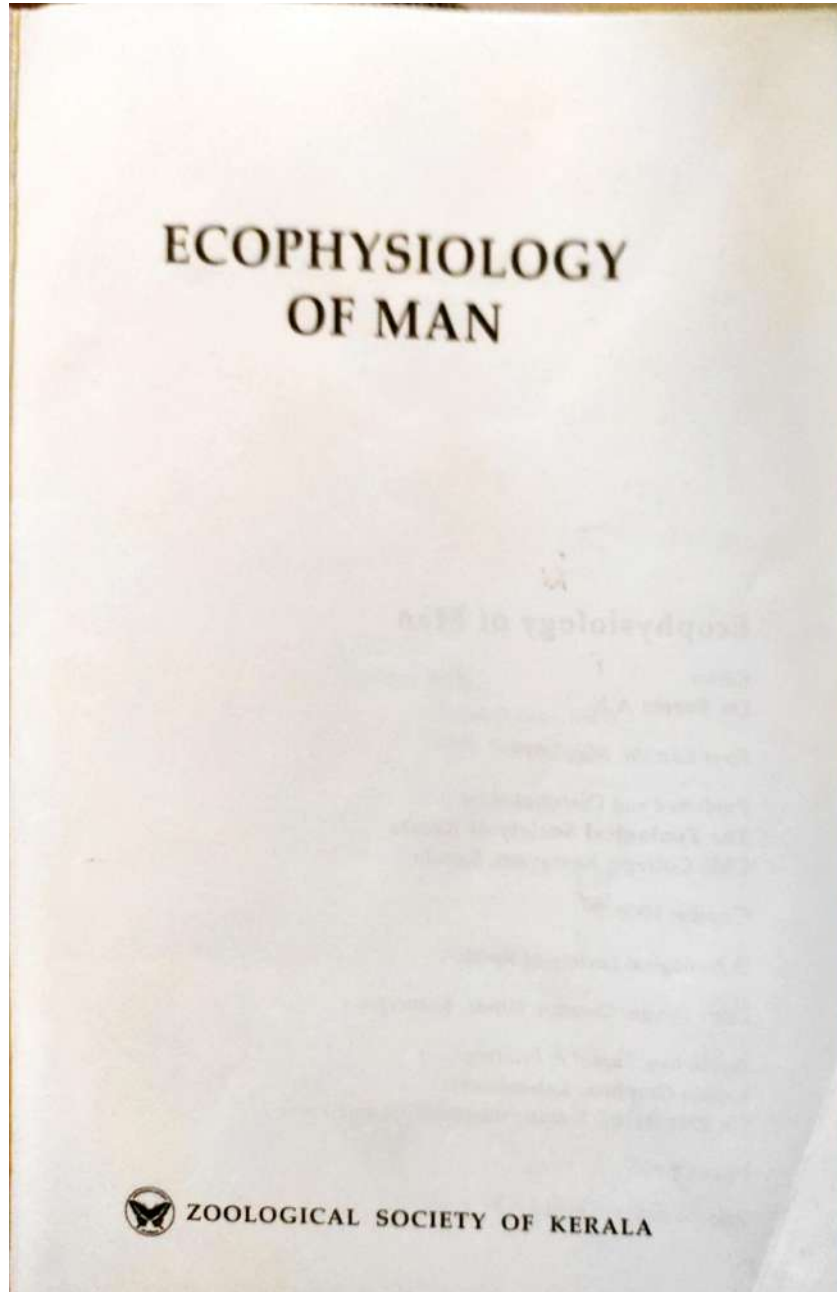
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





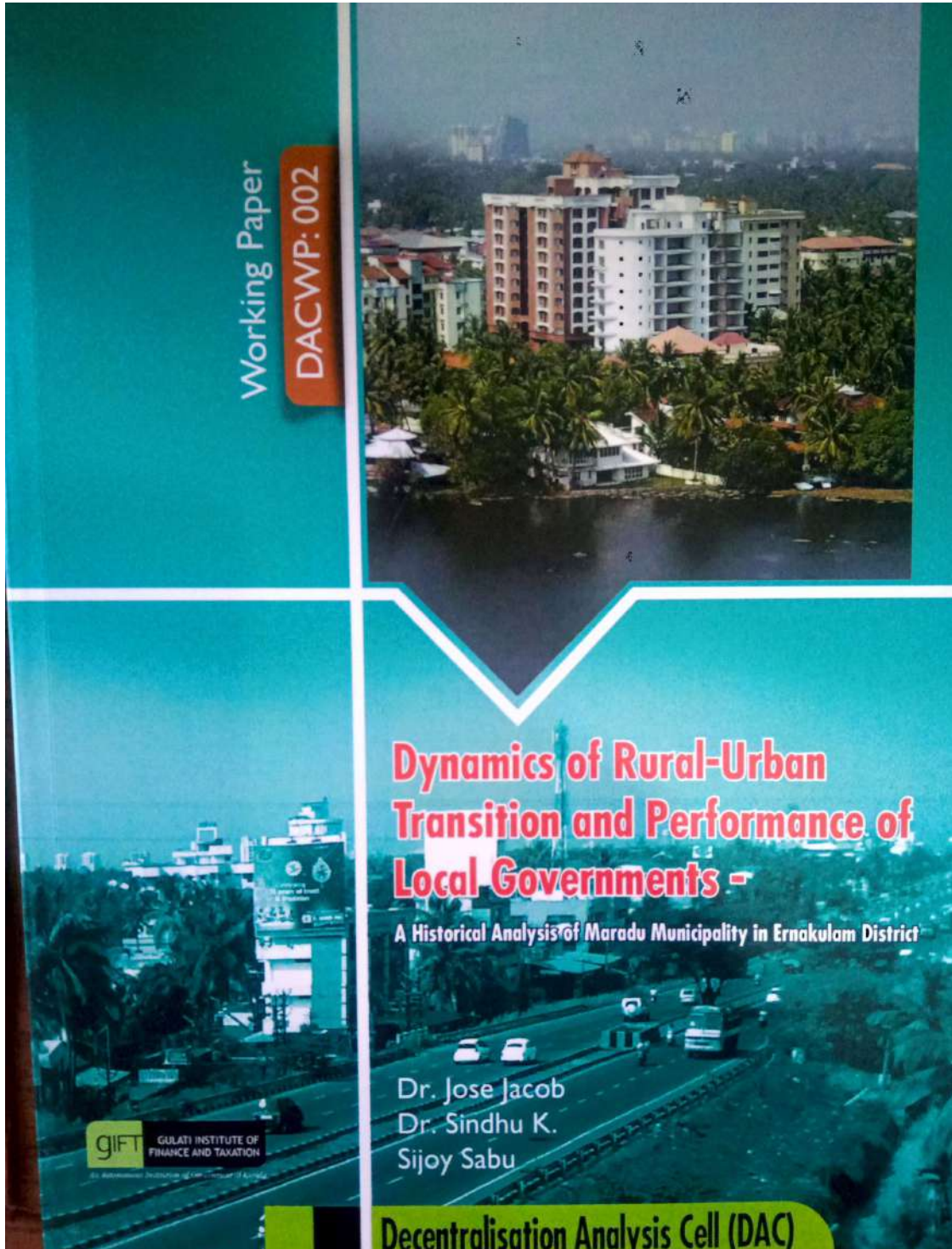
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

ഫ്രണ്ട് അധിനിവേശവും മയ്യഴിയുടെ സ്വതന്ത്രപീഠഭരണവും

ഡോ. പൂർണ്ണിമ സി.സി

ഒരു ദേശത്തിന്റെ സാംസ്കാരിക വൈവിധ്യത്തിന് കാരണമാകുന്ന ഘടകങ്ങളിൽ പ്രധാനമാണ് അധിനിവേശം. ഭാഷ, വസ്ത്രം, പാർപ്പിടം, ജീവിതരീതി, ഭക്ഷണം എന്നിവയിലെല്ലാം അധിനിവേശത്തിന്റെ മുദ്ര കണ്ടെത്താനാകും. അധിനിവേശം ഒരു പ്രദേശത്തിന്റെ ജീവിതത്തിലും സംസ്കാരത്തിലും ജനതയുടെ കാഴ്ചപ്പാടുകളിലും വരുത്താവുന്ന വ്യാപ്തി വളരെ വലുതാണ്. യൂറോപ്യൻ അധിനിവേശം ഏഷ്യൻ, ആഫ്രിക്കൻ, ലാറ്റിനമേരിക്കൻ ഭാഗ്യേയങ്ങളെ പൂർണ്ണമായും തങ്ങളുടെ വരുതിയിലാക്കിത്തീർത്തത് ലോകചരിത്രത്തിലെ തന്നെ നിർണ്ണായകമായ ഒരു വഴിത്തിരിവായിത്തീർന്നു. ഇന്ത്യയെ സംബന്ധിച്ചിടത്തോളം നൂറ്റാണ്ടുകൾ നീണ്ടുനിന്ന വൈദേശികാധിപത്യം ഭൗതികതലങ്ങളിൽ മാത്രമല്ല സ്വതന്ത്രനിർമ്മിതികളെ തന്നെ സ്പർശിക്കുന്ന വിധത്തിൽ സൂക്ഷ്മതലങ്ങളിലും സങ്കീർണ്ണമായ ഇടപെടലുകൾ നടത്തി. 1960 കളോടു കൂടി ലോകത്ത് അധിനിവേശം ഭൗതികമായി അവസാനിച്ചുവെങ്കിലും സൂക്ഷ്മതലത്തിലുള്ള അതിന്റെ പ്രവർത്തനങ്ങൾ തുടർന്നുകൊണ്ടേയിരിക്കുകയാണ്.

പാശ്ചാത്യ വാണിജ്യ ശ്രമങ്ങളിൽ നിന്ന് ആദ്യം അധിപത്യവും പിന്നീട് ഭരണവുമായി മാറിയ അധിനിവേശ സമ്പ്രദായമാണ് ഇന്ന് പൊതുവെ കോളോണിയലിസമെന്ന് വിശേഷിപ്പിക്കപ്പെടുന്നത്. ബ്രിട്ടൺ, ഫ്രാൻസ്, പോർച്ചുഗീസ് തുടങ്ങി മിക്കലോകരാഷ്ട്രങ്ങളും ലോകത്തിന്റെ വിവിധ ഭാഗങ്ങളിലായി തങ്ങളുടെ കോളനികൾ സ്ഥാപിച്ചിരുന്നു. കച്ചവടം ലക്ഷ്യമാക്കിയിരുന്നു വിദേശശക്തികൾ ആദ്യം നമ്മുടെ നാട്ടിലെത്തിയതെങ്കിലും, മധ്യകാലങ്ങളിൽ നിലവിലിരുന്ന സാമൂഹ്യസാമ്പത്തിക വ്യവസ്ഥയ്ക്ക് കോളോണിയലിസം മാതൃകമായ ഒരു ആഘാതമായിത്തീർന്നു.



Mendula Menon
 Mrudula Menon V.
 Principal-in-Charge
 The Cochin College



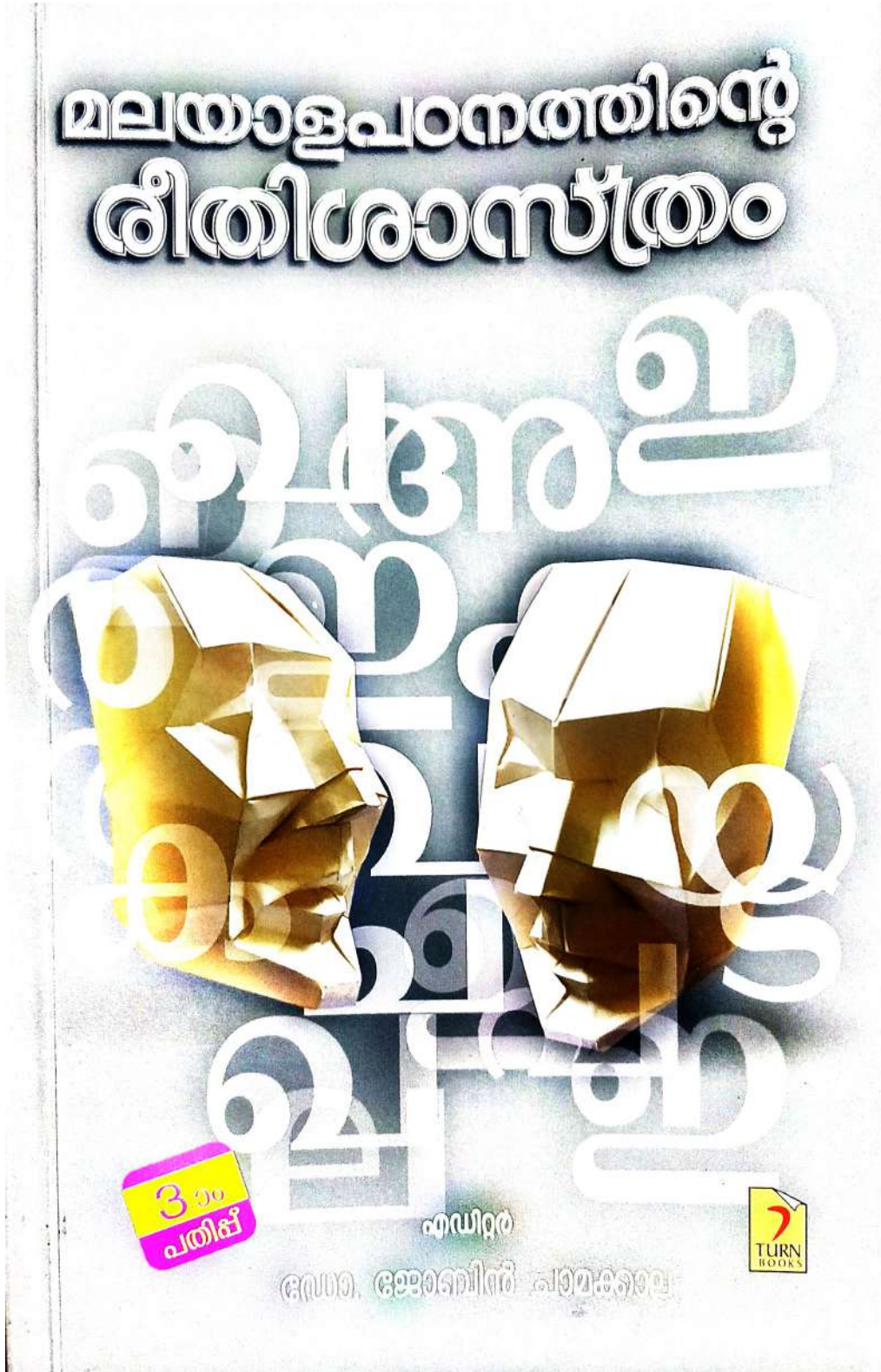
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in



Mrudula Menon V.
 Mrudula Menon V.
 Principal-in-Charge
 The Cochin College



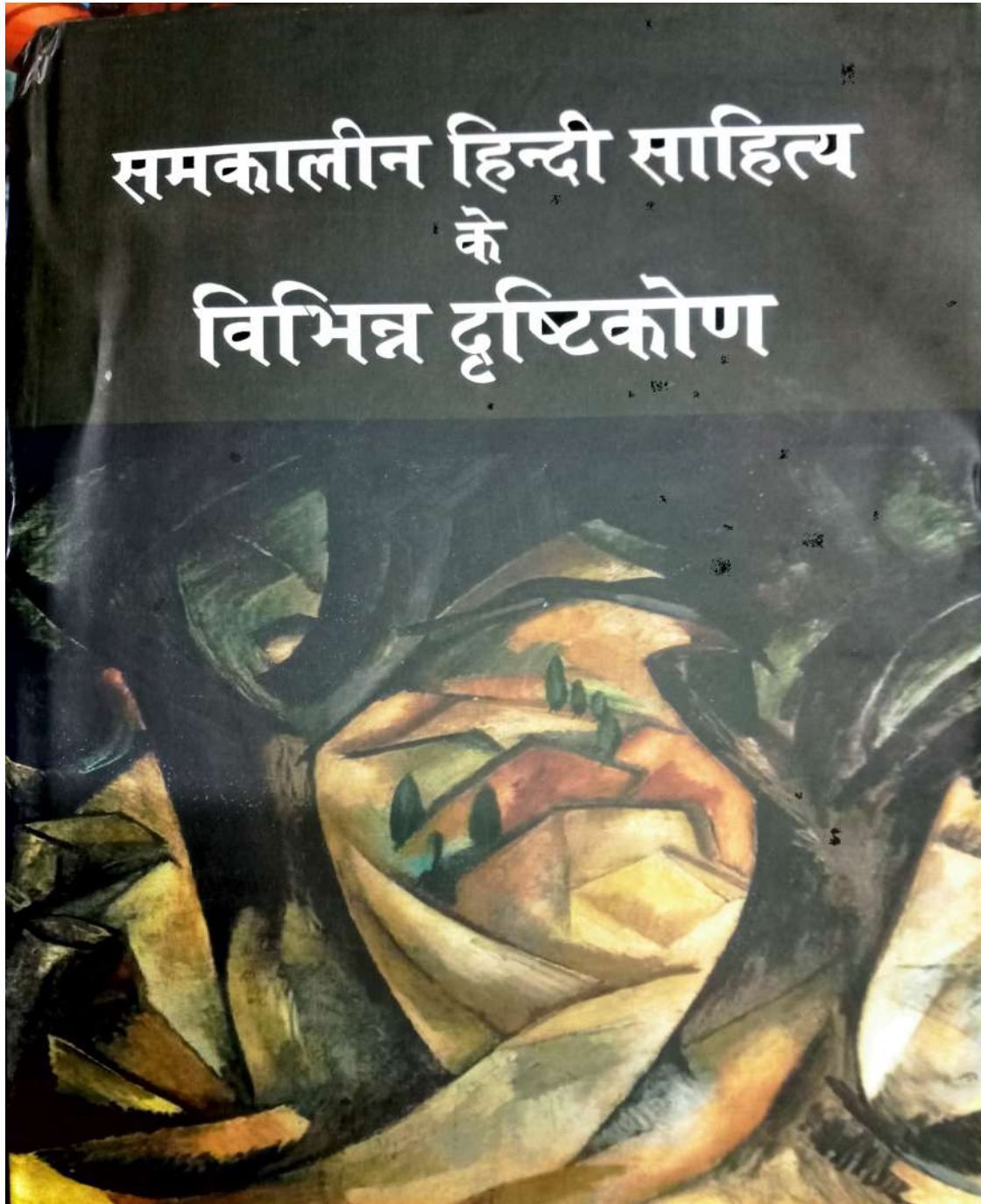
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in





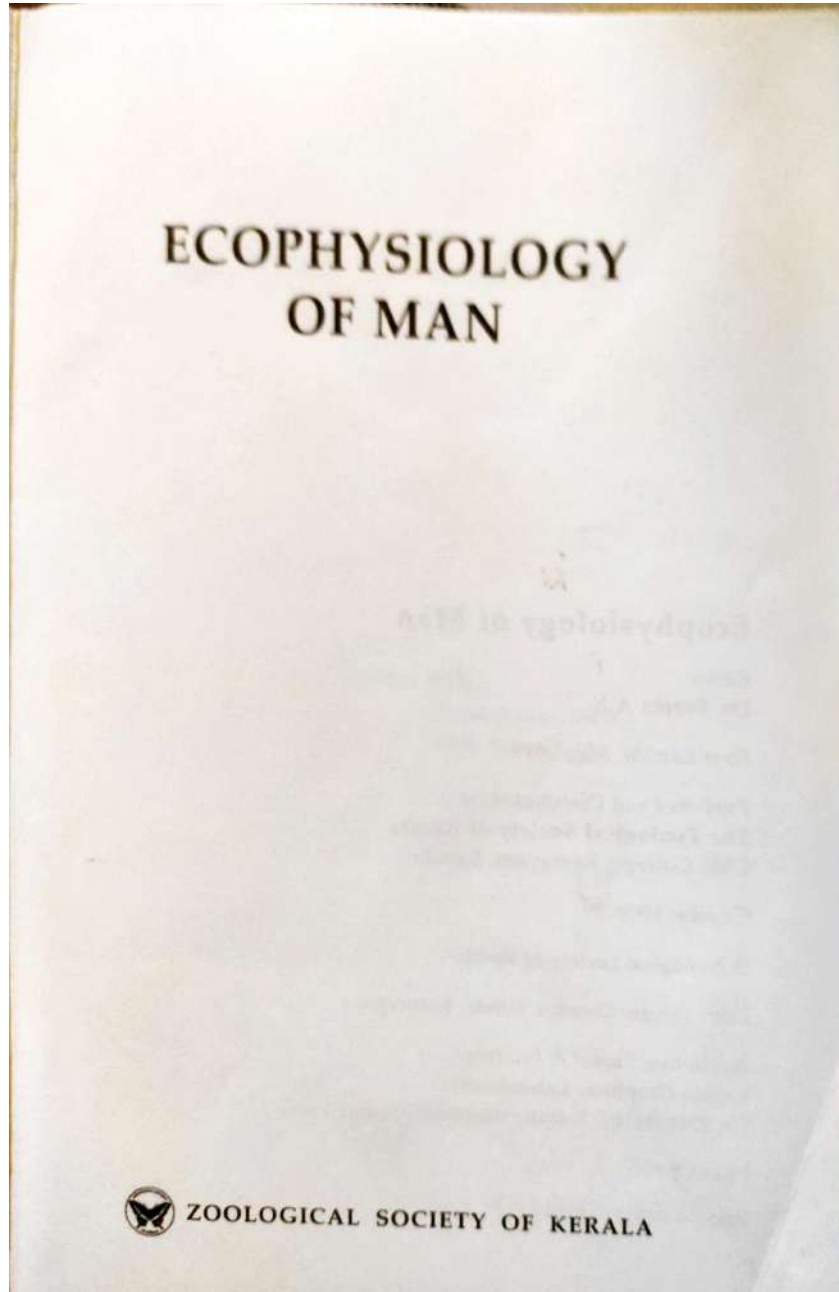
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in





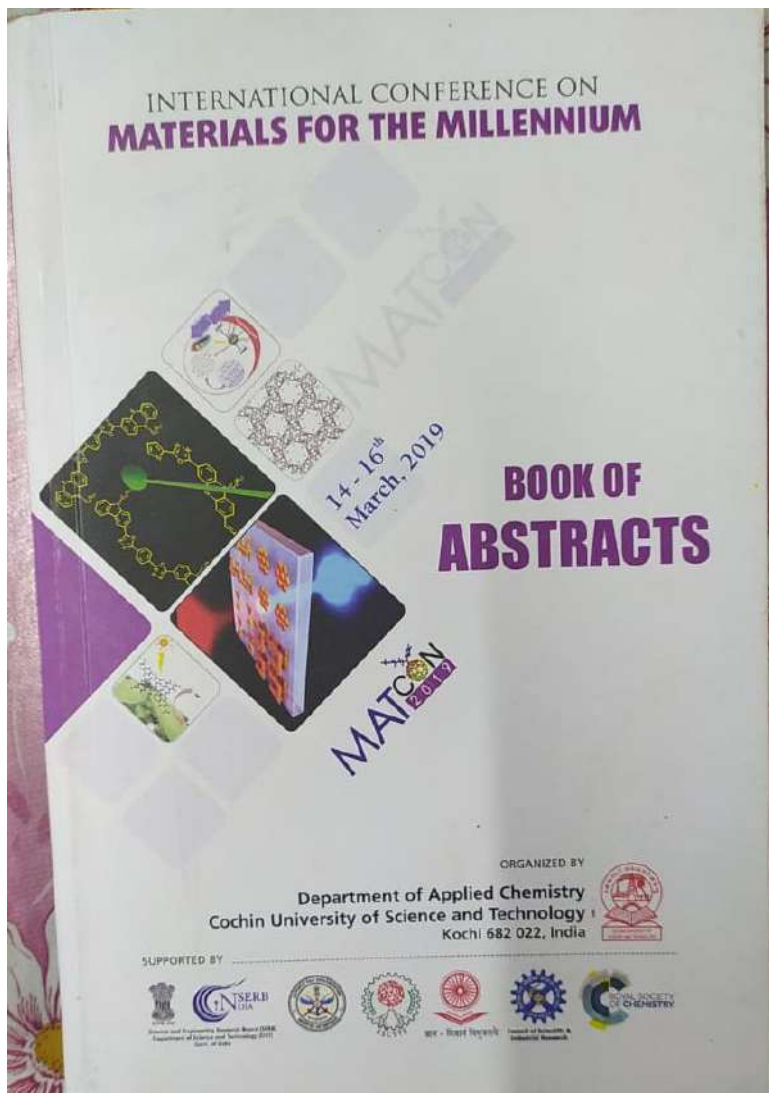
THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



Mrudula Menon V.
Mrudula Menon V.
Principal-in-Charge
The Cochin College



THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in



International Conference on Impact of Digital Payment System In The Indian Economy (ISDPS-2023)

SEPTEMBER 2023

Edited by
Dr. D. JANET RAJAKUMARI
Dr. S. ELANGO



PG & Research Department of Commerce
URUMU DHANALAKSHMI COLLEGE
(Nationally Accredited With 'B+' Grade By NAAC, Cycle-III)
Trichirappalli - 620019.





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

Photon up-conversion in pure and doped carbon quantum dots synthesized from gelatine

Dr. Vijeesh P ^a, Muhammed Rashid P S ^a, and Flagon Xavier ^a

^aDepartment of Physics, The Cochin College, Kochi, Kerala, India

ABSTRACT

Photon up-conversion is the process of absorbing lower-frequency radiation and emitting higher-frequency radiation, in contrast to the case of fluorescence. Pure and doped carbon quantum dots (CQD) have been synthesized from gelatin using the hydrothermal method. The synthesized CQDs and doped CQDs were characterized using UV-Vis absorption, PL-life time, and fluorescent excitation studies. Along with the fluorescent nature the pure and doped samples showed photon up-conversion and are being investigated. It is the process of absorbing low-energy visible light and emitting high-energy ultraviolet light. The pure and 2 doped samples show up-conversion. Further investigations were done to study the variation in up-conversion frequency with variation in excitation frequency. The up-conversion frequencies vary with dopants but showed a stable emission for various excitations. Biocompatibility studies of the grown samples also conducted to check the activity of the samples and the up-conversion UV light on the biological specimens.

Keywords: Photon up conversion, Carbon quantum dots, fluorescent emission, Doping, PL-Life time, bottom-up method, Gelatin based quantum dots, Absorbance.

1. INTRODUCTION

In a relatively recent discovery in early 1980's, the concept of quantum dots was first introduced by Alexei Ekimov and Louis Brus. These dots were found to emit light at specific wavelengths, depending on their size, and were also highly photostable. From there, the developments and application in the field of quantum dots was very fast. They have unique properties that made them to use in applications like biomedicine, electronics, energy conversion, environmental remediation, optoelectronics, quantum computing, and security. Quantum dots is an active area of research, with new materials, fabrication techniques, and applications being developed. They are expected to play vital role in the future of technology and science. The size, shape, and composition determine the electronic properties of quantum dots. The emission spectrum of a quantum dot depends on its size or composition, making them useful in a wide range of applications. Smaller quantum dots have higher energy levels and emit light with shorter wavelengths, while larger quantum dots emit light with longer wavelengths. Their wide variety of applications were reported in many journals.

Photon up-conversion or photon assisted up-conversion photoluminescence is the phenomenon of boosting energy of an emission photon to be more than that of the excitation photon. This occurs because of the phonon- electron coupled electronic states, which is the same mechanism that works for the conventional down conversion photo luminescence. The study showcases that pure and doped quantum dots show good yield of photon up conversion along with the conventional down conversion photo luminescence. Here visible-ultra violet up conversion carbon quantum dots are prepared from gelatine using hydrothermal bottom-up method. The photo luminescence spectra proved that the pure and doped CQDs convert 420 nm and 520 nm visible light in to ultra violet light along with the normal fluorescence down conversion from ultra violet to visible light. Pure and doped carbon quantum dots (CQD) have been synthesized from gelatin using the hydrothermal method (Figure 1). The synthesized CQDs and doped CQDs were characterized using UV-Vis absorption, PL-life time, and fluorescent excitation studies. Along with the fluorescent nature the pure and doped samples showed photon up-conversion and are being investigated. It is the process of absorbing low-energy visible light and emitting high-energy ultraviolet light (Figure 2). The pure and 2 doped samples show up-conversion. Further investigations were done to study the variation in up-conversion frequency with variation in excitation frequency. The up-conversion frequencies vary with dopants and their excitation frequency.





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochoincollege.edu.in

email: email@thecochoincollege.edu.in

INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN PHYSICAL SCIENCE (ICRAPS-2023)

Editor in Chief

Dr. Johnson K M

Editor

Dr. Shibi Thomas



**BHARATA MATA COLLEGE (AUTONOMOUS)
THRIKAKKARA, KOCHI-22**

NAAC with A+ Grade, ISO-9001-2015 Certified





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

6TH INTERNATIONAL ARTEMIS CONGRESS ON HEALTH AND SPORT SCIENCES

DOI: 10.5281/zenodo.10548374

ISBN: 978-625-6879-44-7

RELATIONSHIP OF ANGER TO PLAYING ABILITY AMONG NATIONAL LEVEL WOMEN KARATE PLAYERS

Dr. Mary Varghese Kundukulam

Nirmala College, Lecturer, Department of Physical Education, Muvattupuzha, Kerala, India, Affiliated to Mahatma Gandhi University, Kottayam

ABSTRACT

The purpose of the study was to examine the correlation between anger and the playing ability of national level karate players. Thirty national level karate players from Kerala ($n = 30$) were chosen as subjects to achieve the goal, and their ages ranged between 18 to 25 years. The study focused solely on the psychological variable of anger. Within this study, playing ability was defined by karate skills such as straight punch, front lunge punch, front kick, round house kick, side stance, back stance, front stance, down block, and commitment to the game. Karate playing ability was determined by three experts' subjective ratings of the girls and used as a psychological variable. To establish the relationship between anger as a psychological variable and the playing ability of national level karate players in Kerala, the Pearson product-moment correlation was employed at a significance level 0.06. The prediction equation was determined using the multiple regression method's backward selection. The findings indicated a significant relationship between karate players' playing ability and the psychological variable of anger. The multiple regression analysis confirmed that karate players' playing ability could be reliably associated with the chosen psychological variables.

Keywords: Anger, playing ability, national level karate players

INTRODUCTION

Games and sports have been a part of human life almost from the beginning. However, it is necessary for his survival, such as hunting for food, shelter, and safety from wild animals or other enemies, or as a recreational activity. Games and sports have become indispensable to humanity and have become an integral part of his culture. People used sports as a great unifying force and as a tremendous effect on national and international integration. Today's life is largely dependent on science and technology. In such cases, people require more exercise to keep their bodies and minds in shape so that they can carry out the activity efficiently. Sport is the way we use our physical abilities to have fun. Sports and his body are inextricably linked. Sports allow you to let go of tension, forget about your problems for a while, and go out and have a good time regardless of other pressures in your life. Sports are individual activities that are related to and revitalising in nature, and they are intended to provide opportunities for the individual to make two times the amount of money (1). The adaptation of the human body to physical exercise through various sports activities can improve internal system health and the efficiency of





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

9

EFFECT OF DISINFECTANTS ON SELECTED SPECIES OF HALOPHILIC PATHOGENIC VIBRIOS

Smitha N.R.

Assistant Professor, Department of Zoology, The Cochin College Kochi-2

Email: smithanr@thecochincollege.edu.in

Introduction

Marine occurring vibrios in addition to *V. cholerae* have emerged as significant human pathogen in recent years and 11 species have been documented to cause disease by consumption of raw or improperly cooked seafood or via wounds acquired in the marine environment (Janda et al., 1988). Presence of Halophilic pathogenic Vibrios (HPVs) in seafood meant for export caused concern during the past two decades. Recently few consignments of frozen fish exported from this country suffered rejection due to the presence of HPVs.

Halophilic vibrios are one of the major groups of bacteria found in marine and estuarine environment. It is therefore to be expected that freshly harvested finfish and shellfish from these environments might be harboring some of the pathogenic halophilic *Vibrio* spp. Vibrios may cause a variety of diseases including gastroenteritis, wound infections, ear infection and septicemia. A number of halophilic *Vibrio* spp. viz. *V. alginolyticus*, *V. cincinnatiensis*, *V. damsela*, *V. fluvialis*, *V. furnissii*, *V. hollisae*, *V. metschnikovii*, *V. parahaemolyticus* and *V. vulnificus* are recognized as human pathogens (Dalsgaard, 1998). This study was undertaken to minimize the incidence halophilic pathogenic vibrios in fish and fish products by using disinfectants like Chlorine and chlorine dioxide in the process water samples.

Analysis

Organisms used:

V. cincinnatiensis, V. fluvialis, V. furnissii and V. Parahaemolyticus.

Substratum used for inoculation and its preparation.

500 ml each of distilled water (DW), Normal saline(NS) and 3 % NaCl solution was prepared in glassstopper bottles and sterilized at 121°C for 15 min. One bottle of 500 ml 3 % NaCl solution was maintained as control.

Inoculation of the organisms:

1 ml cell suspension was transferred to each bottle with 500 ml sterile DW, NS and 3 % NaCl solution and control.

Life Science Research and Intellectual Property Rights - LRIPR 2022 - Proceedings





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

6TH INTERNATIONAL CONGRESS ON LIFE, SOCIAL, AND HEALTH SCIENCES IN A CHANGING WORLD

EFFECTS OF YOGA ON MENTAL AND PHYSICAL HEALTH: SUMMARY

Dr. Mary Varghese Kundukulam

Lecturer, Department of Physical Education, St Joseph College of Teacher Education for Women, Affiliated to Mahatma Gandhi University, Kerala, India

ABSTRACT

The current research on yoga's benefits for both physical and mental health. Collectively, these reviews imply that yoga may be beneficial in a variety of areas, although almost all of them require additional research to confirm these benefits. Nonetheless, there are a few meta-analyses that demonstrate the positive effects of yoga therapies, as well as a number of randomized clinical trials of relatively good quality that demonstrate the positive effects of yoga on pain-related disability and mental health. Yoga may be beneficial as a supporting supplement to alleviate certain medical issues, but it is not yet a proven cure-all. Yoga may have the potential to be implemented as a beneficial supportive/adjunctive treatment that is relatively cost-effective, can be practiced at least in part as a self-care behavioral treatment provides a lifelong behavioral skill, increases self-efficacy and self-confidence, and is frequently associated with additional positive side effects.

Keywords: yoga, mental, physical health.

INTRODUCTION

The international day of yoga has been celebrated yearly on June 21 throughout the world since 2015. Yoga is a physical, mental, and spiritual discipline with ancient Indian origins. The application of yoga as a therapeutic intervention, which originated in the early twentieth century, exploits the diverse psychophysiological effects of the component practices. The physical exercises may strengthen the patient's physical flexibility, coordination, and strength, while the breathing exercises and meditation may quiet and focus the mind in order to raise awareness and reduce anxiety, resulting in a superior quality of life. Other potential benefits include a decrease in anxiety, blood pressure, and enhancements in resiliency, mood, and metabolic balance. Yoga practice has numerous physical and mental advantages, including enhanced circulation, flexibility, respiration, and energy, among others. Although all exercise has physical benefits, yoga is exceptional. Not only does it provide mental and physical preventative benefits, but it also teaches pranayama and a range of breathing techniques to help you maintain vitality, strength, and reduce stress. Experts have long touted the benefits of yoga for the mind and body, and there are numerous reasons why yoga has become so popular for preserving physical and mental health.

Yoga has created techniques for experiencing the various levels of consciousness and encompasses the concept of the super-conscious mind. Beyond the sense consciousness, we experience on a daily basis, consciousness may function independently of or through the sense organs. One is able to see without eyes, to think without a brain, to hear without ears, and to feel without any sort of sensory medium-ship. This is possible if, via yogic practices, the barriers between different levels of consciousness can be broken

1115





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

2nd International Azerbaijan Congress on Life, Social, Health, and Art Sciences

A STUDY ON HEALTH AND WELLNESS: PHYSICAL EDUCATION

Dr. Mary Varghese Kundukulam

Lecturer, Department of Physical Education, Mahatma Gandhi University, Kerala, India.

ABSTRACT

Physical education, health and wellness intend to enhance the school community's well-being by fostering a culture that integrates and balances the six elements of wellness: social/environmental, physical, intellectual, career/occupational, emotional, and spiritual. The department strives to promote an active, healthy lifestyle, positive decision-making, and student-centeredness to give each student a diverse education in a safe, supportive atmosphere. This objective is intended to inspire self-responsibility, motivation, academic performance, and a lifelong dedication to wellbeing. The study reveals that exercise is extremely important to staying healthy, both in body and mind. Being active can help a person continue to do things they enjoy and be independent as they age. Long-term physical activity increases the benefits of long-term health.

Keywords: health, wellness, physical education.

INTRODUCTION

Health is a state of complete mental, physical, and social well-being, not just the absence of disease or infirmity. Fitness is the ability to deal with what the world throws at you. Sport is a great way to get rid of stress. Among the mental benefits is a boost in confidence. Students learn in Health and Physical Education that following good health and safety rules can help them live healthier lives for the rest of their lives, which makes them more productive, active, and successful. Physical and health education is about both learning about and doing physical activities to learn. Both dimensions help students come up with ways to learn skills that are taught in different subjects. Physical and health education courses must involve students in physical education activities for a minimum of fifty percent of the entire time allotted to the subject group.

The health and physical education standards and grade-level outcomes specify the knowledge and skills that students should possess. They develop the concepts and skills necessary for safe and healthy living, and subsequently for academic success. The purpose of Health Education and Physical Education programs is to provide students with educational opportunities that promote physically healthy, long-term lifestyle choices. Together, parents, schools, and the government are making a significant difference in students' health and well-being.

Physical wellbeing entails areas of life that are essential for maintaining peak physical condition. The combination of positive physical activity/exercise and healthy food habits produces optimal physical health. Physical health fundamentals include developing muscular strength and endurance, cardiovascular strength and endurance, and flexibility.

904





THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

Co-sponsors


Department of Science and Technology (DST)
(SR/PURSE/2023/191)


(SSY/2023/001268)


(KSCSTE/SSW/XI/17)

Prize Sponsors


npg asia materials



Other Sponsors


SCIENTIFIC INSTRUMENTS


SOLUTIONS INC








SCIENTIFIC


Equipment & Chemicals


Pvt. Ltd.




The Laboratory People

ICAMS 2023

International Conference on Advanced Materials for Sustainability

21st – 23rd, December 2023

Book of Abstracts

Organized by


 School of Physical Sciences
 University of Calicut
 Thenhipalam
 Malappuram-673635, India.



Mendula Menon
Mrudula Menon V.
Principal-in-Charge
The Cochin College



THE COCHIN COLLEGE

KOCHI - 682 002

(Affiliated to Mahatma Gandhi University and Accredited by NAAC)

Website: www.thecochincollege.edu.in

email: email@thecochincollege.edu.in

1319

Infinitely degenerate exact Ricci-flat solutions in $f(R)$ gravity

Semin Xavier

Department of Physics, Indian Institute of Technology, Mumbai, Maharashtra 400076
E-mail: seminxavier@iitb.ac.in

Jose Mathew

Department of Physics, The Cochin College, Kochi, Kerala, India
E-mail: josecherukara@gmail.com

S. Shankaranarayanan

Department of Physics, Indian Institute of Technology, Mumbai, Maharashtra 400076
E-mail: shanki@phy.iitb.ac.in

The evidence is mounting that the universe is currently undergoing a phase of accelerated expansion. One possible alternative is the modification in gravity in the largest possible scales. This leads to the many questions related to black-holes: violation of Birkhoff theorem and no-hair theorem. To confirm/infirm, we need to obtain exact black-hole solutions in these modified gravity theories. In this talk, we focus on the exact spherically symmetric solutions in $f(R)$ theories of gravity. We explicitly show that some $f(R)$ models contain an infinite number of exact static, Ricci-flat spherically symmetric vacuum solutions and, hence, violate Birkhoff's theorem in $f(R)$ theories. We analytically derive two exact vacuum black-hole solutions for the same class of $f(R)$ theories. The two black-hole solutions have the event-horizon at the same point; however, their asymptotic features are different. Our results suggest that the no-hair theorem may not hold for generic modified gravity theories. We discuss the implications to distinguish modified gravity theories from general relativity.

Keywords: $f(R)$ theory, no-hair theorem, based on the work¹

1. Introduction

General Relativity (GR) is a successful description of gravity and is in excellent agreement with experiments and observations. However, paradoxically, the very success of GR suggests that GR might have classical and quantum corrections in the strong gravity regime.²⁻⁶ Recently, strong gravity diagnostic parameters have been proposed to distinguish GR and modified gravity theories.⁷

In GR, static black-hole solutions are the final stage of gravitationally collapsed objects. As a consequence of the no-hair theorem,⁸ GR predicts that the Kerr metric represents the most general astrophysical black holes.⁹ In the case of spherical symmetry, Birkhoff's theorem ensures that the most general spherically symmetric, electrovac solution of the Einstein-Maxwell equations is the static Reissner-Nordstrom solution.^{10,11} The absence of spin-0 modes in the linearized field equations leads to this result. However, there is no Birkhoff theorem for the Kerr metric. Outside

