

BIOCHEMISTRY

Volume - I

ABOUT THE AUTHORS

Dr. Sr. A. Arockia Jenecius Alphonse, Assistant Professor of Botany, St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu obtained her M.Sc. from Holy Cross College (Autonomous), Tiruchirappalli, M.Phil. from Madras University and Ph.D. from Manonmaniam Sundaranar University, Tirunelveli. She has 15 years of teaching experience. She has been teaching Biochemistry for a decade to the college students. She has completed 2 minor research projects funded by UGC. She holds various academic and administrative capacities in the college. She served as the Deputy Principal of St. Mary's College (Autonomous) from 2016 to 2019. At present, she is the Research Coordinator and also Overall Coordinator and Member Secretary of Star College Scheme funded by DBT, Govt. of India, New Delhi. She has completed three online courses. She has published 15 research articles in various reputed National and International Journals and presented papers in National and International seminars. She has organised seminars, workshops, conferences and Mega Job fair for college students. Twelve M.Sc. and two M.Phil. students completed their projects under her supervision. She is guiding PhD students from 2019.



Dr. G. Amala Jothi Grace is an Assistant Professor of Chemistry at St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu. She received Ph.D. from Manonmaniam Sundaranar University, Tirunelveli. She has 12 years of teaching experience. She has published 1 patent on Synthesis of Value added materials by Biogenic route from Industrial Pollutants in Official Journal of The Patent Office and completed 2 online courses. She has published 7 research papers in various International & National Journals. She has also authored 4 books (8 Editions). She has presented 20 papers and participated in International & National Conferences and Seminars. She has also secured University ranks in both Under Graduate and Post Graduate Level.



Dr. P. Subavathy, Assistant Professor of Zoology, St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu obtained her M.Sc and M.Phil from St. Mary's College (Autonomous), Thoothukudi and Ph.D. from Manonmaniam Sundaranar University, Tirunelveli. She has also secured University rank in Under Graduate Level. She has cleared State Eligibility Test for Lectureship. She has worked as Research Fellow in the Major Research Project funded by UGC. She has two years of teaching experience. She has participated and presented papers in various national and international seminars and conferences. She has published 15 research articles and 1 book chapter. She has submitted three sequences in GenBank. She has successfully guided 2 M.Phil students. She has completed 3 online courses.

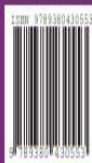


CBA PUBLISHER

A-1, Thenmozhi Nagar, 3rd Street,
Kilikkattalai, Chennai - 600117.

Phone: 044-22470770, Cell : 94440 40272

Email: cbapublisher@gmail.com



BIOCHEMISTRY

Volume - I



BIOCHEMISTRY Volume - I

A. AROCKIA JENECIUS ALPHONSE

G. AMALA JOTHI GRACE

P. SUBAVATHY



International Web Conference

On

Women Empowerment through Education, Employment & Entrepreneurship (WE through E³)

IWCWEEEE

(26-27 June 2020)

www.nfedconferences.org

Organized By



Department of Economics, School of Management & Economics

St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu

www.stmaryscollege.edu.in

In Association With



National Foundation for Entrepreneurship Development (NFED)

Coimbatore, Tamil Nadu, India

www.nfed.in | www.nfedindia.org | www.nfedawards.com

Published By



**Centivens Institute of
Innovative Research**
Private Limited

International Web Conference

On

Women Empowerment through Education, Employment & Entrepreneurship (WE through E³)

IWCWEEEE

(26-27 June 2020)

www.nfedconferences.org

Organized By



Department of Economics, School of Management & Economics

St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu

www.stmaryscollege.edu.in

In Association With



National Foundation for Entrepreneurship Development (NFED)

Coimbatore, Tamil Nadu, India

www.nfed.in | www.nfedindia.org | www.nfedawards.com

Published By



**Centivens Institute of
Innovative Research**
Private Limited

International Web Conference

On

Women Empowerment through Education, Employment & Entrepreneurship (WE through E³)

IWCWEEEE

(26-27 June 2020)

www.nfedconferences.org

Organized By



Department of Economics, School of Management & Economics

St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu

www.stmaryscollege.edu.in

In Association With



National Foundation for Entrepreneurship Development (NFED)

Coimbatore, Tamil Nadu, India

www.nfed.in | www.nfedindia.org | www.nfedawards.com

Published By



**Centivens Institute of
Innovative Research**
Private Limited

BIOCHEMISTRY

Volume - 1

ABOUT THE AUTHORS

Dr. Sr. A. Arockia Jenecius Alphonse, Assistant Professor of Botany, St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu obtained her M.Sc. from Holy Cross College (Autonomous), Tiruchirappalli, M.Phil. from Madras University and Ph.D. from Manonmaniam Sundaranar University, Tirunelveli. She has 15 years of teaching experience in handling both undergraduate and postgraduate students. She has been teaching Biochemistry for a decade to the college students. She has completed 2 minor research projects funded by UGC. She holds various academic and administrative capacities in the college. She served as the Deputy Principal of St. Mary's College (Autonomous) from 2016 to 2019. At present, she is the Research Coordinator and also Overall Coordinator and Member Secretary of Star College Scheme funded by DBT, Govt. of India, New Delhi. She has completed three online courses. She has published 15 research articles in various reputed National and International Journals and presented papers in National and International seminars. She has organised seminars, workshops, conferences and Mega Job fair for college students. Twelve M.Sc. and two M.Phil. students completed their projects under her supervision. She is guiding PhD students from 2019.



Dr. G. Amala Jothi Grace is a Assistant Professor of Chemistry at St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu. She received Ph.D. from Manonmaniam Sundaranar University, Tirunelveli. She has 12 years of teaching experience. She has published 1 patent on Synthesis of Value added materials by Biogenic route from Industrial Pollutants in Official Journal of The Patent Office and completed 1 online course. She has published 7 research papers in various International & National Journals. She has also authored 4 books (8 Editions). She has presented 20 papers and participated in International & National Conferences and Seminars. She has also secured University ranks in both Under Graduate and Post Graduate Level.



Dr. P. Subavathy, Assistant Professor of Zoology, St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu obtained her M.Sc and M.Phil from St. Mary's College (Autonomous), Thoothukudi and Ph.D. from Manonmaniam Sundaranar University, Tirunelveli. She has also secured University rank in Under Graduate Level. She has cleared State Eligibility Test for Lectureship. She has worked as Research Fellow in the Major Research Project funded by UGC. She has two years of teaching experience. She has participated and presented papers in various national and international seminars and conferences. She has published 15 research articles and 1 book chapter. She has submitted three sequences in GenBank. She has successfully guided 2 M.Phil students. She has completed 3 online courses.

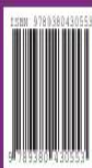


CBA PUBLISHER

A-1, Thenmozhi Nagar, 3rd Street,
Kilkalattai, Chennai - 600117.

Phone: 044-22470770, Cell : 94440 40272

Email: cbapublisher@gmail.com



BIOCHEMISTRY Volume - 1

BIOCHEMISTRY

Volume - I



A. AROCKIA JENECIUS ALPHONSE
G. AMALA JOTHI GRACE
P. SUBAVATHY



Publisher



Born on May 16, 1982 in Kurbara, Neem Ka Thana, Rajasthan, India. **Dr. Sunil Kumar Verma**, M.A. (Geography) M.Sc. (RS & GIS), CSIR and UGC NET / JRF, SET, Ph.D., is an active and dynamic researcher and Ph.D. Supervisor who is currently working as a Lecturer (PGT) in Department of Geography, JNV, Longding, Arunachal Pradesh,

India. In Oct. 2011, University of Kota, Kota awarded him Ph.D.

He has been teaching Geography for the last 13 years and has devotedly worked at several reputed colleges located at Sikar, Churu and Sri Ganganagar. He has also published 5 books and more than 35 research papers and articles in national and international peer-reviewed multi-disciplinary research journals. He has also attended 34 National and 21 International Seminars and Conferences. He is also a life member of NAGI and RGA.



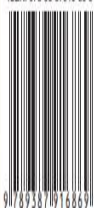
Dr. Munesh Kumar born in Village- Udansar, Teh-Fatehpur, District- Sikar, Rajasthan, India. He completed LLB, LL.M, M.A. (History), UGC NET and Ph.D. from Rajasthan University Jaipur. He currently is working as a Controller of Examination in Pandit Deendyal Upadhyaya Shekhawati University, Sikar, Rajasthan, India

since July, 2017. He has been teaching Law for the last 13 years. He has also published 3 book and more than 15 research papers and articles in National and International peer-reviewed multi-disciplinary research journals. He has also attended National and International Seminars and Conferences.



VL Media Solutions
www.vlmspublications.com

ISBN: 978-93-87916-86-9



ENVIRONMENTAL ETHICS AND SUSTAINABLE DEVELOPMENT

DR. SUNIL KUMAR VERMA • DR. MUNESH KUMAR



ENVIRONMENTAL ETHICS AND SUSTAINABLE DEVELOPMENT

DR. SUNIL KUMAR VERMA DR. MUNESH KUMAR

ENVIRONMENTAL SCIENCES



EDITORS

Dr. P. SUNDARA PANDIAN
Dr. S. VENKATESAN

Dr. N. PRITHIVIKUMARAN
Dr. M. KANNAN



V.H.N. SENTHIKUMARA NADAR COLLEGE

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

Reaccredited with A Grade by NAAC

Virudhunagar 626 001, Tamil Nadu, India

ENVIRONMENTAL SCIENCES



EDITORS

Dr. R. SUNDARA PANDIAN

Dr. N. PRITHIVIKUMARAN

Dr. S. VENKATESAN

Dr. M. KANNAN



ESTD 1947

V.M.N. SENTHIKUMARA NADAR COLLEGE

(An Autonomous Institution Affiliated to Madurai Kamaraj University)

Reaccredited with A Grade by NAAC

Virudhunagar 626 001, Tamil Nadu, India

BIOCHEMISTRY

Volume - 1

ABOUT THE AUTHORS

Dr. Sr. A. Arockia Jenecius Alphonse, Assistant Professor of Botany, St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu obtained her M.Sc. from Holy Cross College (Autonomous), Tiruchirappalli, M.Phil. from Madras University and Ph.D. from Manonmaniam Sundaranar University, Tirunelveli. She has 15 years of teaching experience in handling both undergraduate and postgraduate students. She has been teaching Biochemistry for a decade to the college students. She has completed 2 minor research projects funded by UGC. She holds various academic and administrative capacities in the college. She served as the Deputy Principal of St. Mary's College (Autonomous) from 2016 to 2019. At present, she is the Research Coordinator and also Overall Coordinator and Member Secretary of Star College Scheme funded by DBT, Govt. of India, New Delhi. She has completed three online courses. She has published 15 research articles in various reputed National and International Journals and presented papers in National and International seminars. She has organised seminars, workshops, conferences and Mega Job fair for college students. Twelve M.Sc. and two M.Phil. students completed their projects under her supervision. She is guiding PhD students from 2019.



Dr. G. Amala Jothi Grace is a Assistant Professor of Chemistry at St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu. She received Ph.D. from Manonmaniam Sundaranar University, Tirunelveli. She has 12 years of teaching experience. She has published 1 patent on Synthesis of Value added materials by Biogenic route from Industrial Pollutants in Official Journal of The Patent Office and completed 1 online course. She has published 7 research papers in various International & National Journals. She has also authored 4 books (8 Editions). She has presented 20 papers and participated in International & National Conferences and Seminars. She has also secured University ranks in both Under Graduate and Post Graduate Level.



Dr. P. Subavathy, Assistant Professor of Zoology, St. Mary's College (Autonomous), Thoothukudi, Tamil Nadu obtained her M.Sc and M.Phil from St. Mary's College (Autonomous), Thoothukudi and Ph.D. from Manonmaniam Sundaranar University, Tirunelveli. She has also secured University rank in Under Graduate Level. She has cleared State Eligibility Test for Lectureship. She has worked as Research Fellow in the Major Research Project funded by UGC. She has two years of teaching experience. She has participated and presented papers in various national and international seminars and conferences. She has published 15 research articles and 1 book chapter. She has submitted three sequences in GenBank. She has successfully guided 2 M.Phil students. She has completed 3 online courses.



CBA PUBLISHER

A-1, Thenmozhi Nagar, 3rd Street,
Kilikkattalai, Chennai - 600117.

Phone: 044-22470770, Cell : 94440 40272

Email: cbapublisher@gmail.com



BIOCHEMISTRY

Volume - I



BIOCHEMISTRY Volume - 1

A. AROCKIA JENECIUS ALPHONSE

G. AMALA JOTHI GRACE

P. SUBAVATHY



VOLUME - 9

RESEARCH TRENDS IN

CHEMICAL SCIENCES



**Chief Editor
Dr. Ashok Kumar Acharya**

**AKINIK PUBLICATIONS
NEW DELHI**

SOCIAL MEDIA IN TEACHING AND LEARNING



Dr.C.THANAVATHI

ENVIRONMENTAL STUDIES

Dr.Sr.C.Shibana



Archers & Elevators Publishing House
www.aeph.in

RURAL DEVELOPMENT AND ECONOMIC POLICY IN INDIA

Rural Development: Economics and Policies text book is an outline to the rural development programmes for sustainable development and socio-economic transformation in rural India. The book is concerned primarily with the basic components and feature of rural economy, importance and significance of rural development in India, problems of rural economic development and interdependence between rural and urban sector. The chapters cover a variety of issues including agricultural sector in the development of rural economy, need and economic significance of rural industries, role of khadi and village industries in the development of rural industries, importance and significance of rural marketing, rural development programmes and five years plans and impact of new economic policy on the rural economy. It has a wide coverage and includes chapters such as rural tourism business attraction, rural entrepreneurship, institutional credit and subsidy programmes, rural housing, conservation ecosystems, rural health, drinking water, sanitation and education in rural areas. It has been organised into 50 chapters. It is hoped that the book will show very beneficial to the researchers, graduate and postgraduate students of economics, students of rural development, government executives concerned with the formulation and execution of policies for rural development, parliamentarians and legislators, researchers, industrialists, and the common readers interested in rural development. In addition, it will also be beneficial to candidates appearing for various competitive examinations such as I.A.S., I.E.S., C.A. and N.E.T. examinations. At the end of this textbook, necessary question bank are included for the convenience of the students. Any recommendation to further improve its matters is most welcome.



Dr. D. Amutha presently is working as Associate Professor of Economics, St. Mary's College (Autonomous), Tuticorin, Tamilnadu. She has over 16 years of teaching experience. She has participated in several international, national and state level conferences, seminars, symposiums and workshops and presented research papers. She has guided number of projects in the area of Economics. She had organised national and state level Seminars. She has published more than 230 research papers in refereed national and international journals. Five of her papers make SSRN (Social Science Research Network) top ten list. Moreover, she has received 'Best Teacher Award' for 2015 from the GRABS Educational Charitable Trust, Chennai. 'Best Social Scientist Award' from Indian

Academic Researchers Association at Bharathidasan University, Tiruchirappalli on 21st May 2016 and received 'Dr. APJ Abdul Kalam Award for Teaching Excellence - 2016' from Marina Labs Research and Development, Chennai, on 22nd October 2016. She has received 3 best paper presentation awards also. She is serving as resource person for various institutions and serving as Executive Editor, Editor in Chief, International Editorial Board Member and reviewer of 18 International and National Research Journals. She is also Published 13 books. She is a Life Member of a number of journals. She has been acting as a speaker in All India Radio. She also served as NSS Programme Officer over 5 years.



MANGLAM PUBLISHERS & DISTRIBUTORS

K-129 Gali No.-3, 3-1/2 Pusta, Near Shiv Om Jewellers
Gautam Vihar, Delhi-110053

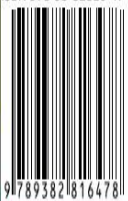
Ph.: 011-22945677 Mob.: 9868572512, 9811477588

E-mail: manglam.publishers@rediffmail.com

Web.: www.manglampublications.com

₹ 2250/-

ISBN 978-93-82816-47-8



9789382816478

RURAL DEVELOPMENT AND ECONOMIC POLICY IN INDIA

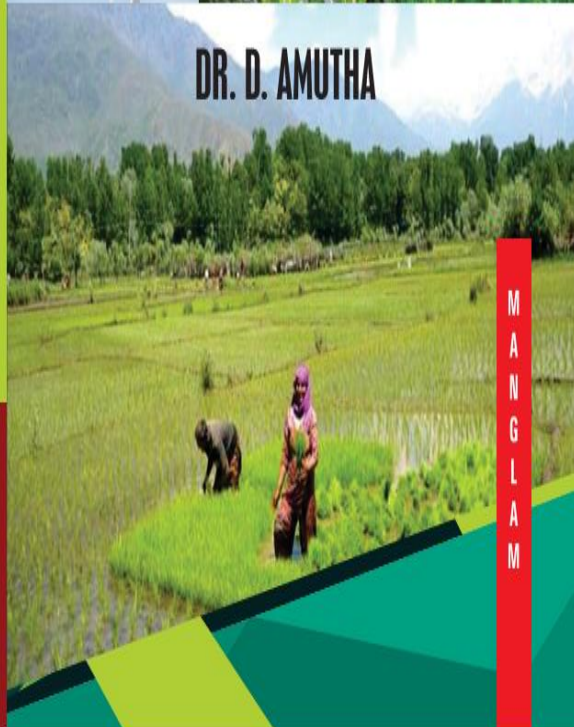
DR. D. AMUTHA



RURAL DEVELOPMENT AND ECONOMIC POLICY IN INDIA



DR. D. AMUTHA



MANGLAM

Many Alfred Marshall, Keynes, Knut, Wicksell, J.B. Clark, Irving, Taussing, Veblen W.C., Mitchell, K.C., Dutt, Naoroji, M.G. Randade, M.K. Gandhi ji, Dr B.R. AMBEDKAR, Rajaji, Jawahar Lal Nehru V.K.R.V. Rao, C.N. Vakil, D.R. Gadgil, Indra Gandhi, Amarthya Kumarsen and many other have been deliberated in component. This book offers fundamental outline to the history of economic thought and highly comprehensible. It has been organized in to 68 chapters. However, this book is also useful for B.A., B.Com, B.B.A., M.A., M.B.A. and M.Com. Degree courses of other Indian Universities. In addition, it will also be beneficial to candidates appearing for various competitive examinations such as I.A.S., I.E.S. C.A. and N.E.T. examinations. At the end of this textbook, necessary question bank are included for the convenience of the students. I hope that every reader will enjoy reading this book. Any recommendation to further improve its matters is most welcome.

ABOUT THE AUTHOR

Dr. D. Amutha is Presently working as associate professor of economics, St Mary's College (Autonomous), Tuticorin, Tamilnadu. She has over twenty year of experience in teaching and research. Her main research areas are agricultural economics, development economic, socio economic analysis, women studies, rural development, micro credit and microenterprises. She has participated in several International, National and state level conferences, seminar, symposiums and work shop and presented research papers. She has guided number of project in the area of economics. She had organized national and state level seminar. She has published more than 250 research papers in refereed national and international journals. Nine of her papers make SSRN (Social Research Network) top ten list. She has received ICSSR sponsored research project. She has been invited to deliver Keynote address at DMI-St. Eugene University, Zambia on 08.04.2019. More over, she has received 'Best Teacher Award' for 2015 from the GRABS Educational Charitable Trust Chennai. 'Best social Scientist Award' from Indian Award ' from Indian Academic Researchers Association at Bharathidasan University, Tiruchirappalli on 21 st May 2016, Dr APJ Abdul Kalam Award for Teaching Excellence- 2016 from Marina Labs Research and Development, Chennai, on 22nd October and received Bright Educator Award 2017 in Economics from International Institute of Organized Research (I2OR) / Australia Received International Academic Excellence Award 2018 from International Association of Research and Development Organisation (IARDO) In association with Gurukul Institute of Engineering and Technology, Kota (India), At International Centre Goa, Panjim, Goa (India) on 28th October 2018 and received MTC global Award for Distinguished Teacher Award in Economics 2019 at the 9th World Edu Summit, on 7th Sep 2019, Bangalore. She Has received 3 best paper presentation awards also. She is serving as resource person for various institutions and serving as Executive Editor in Chief, International Editorial Board Member and reviewer of 18 International and National Research Journals. She is also published 14 books. She is a Life Member of a Number of Journals. She has been acting as a Speaker in all India Radio. She also served as NSS programme Officer over 5 years.



Manglam Publications

Address: K-129, Ground Floor, Gali no.3, 3½ Pustha Main Road,

Near Green Vales School, Gautam Vihar, Delhi-110053

E-mail: manglam.books2007@rediffmail.com

Web: www.manglamlpublications.com

Rs.

ISBN



Economic Thought

Dr. D. Amutha

