



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



2020



ISBN : 978-81-944038-6-9

प्रकाशक :  
राका प्रकाशन  
40ए, मोतीलाल नेहरू रोड  
प्रयागराज-2  
\*  
कॉपीराइट :  
लेखक  
\*  
संस्करण  
2020  
\*  
मुद्रक :  
ग्राफिक्स क्लियरेशन  
टैगोर टाउन, प्रयागराज

मूल्य : 550/- रुपये मात्र

Prarambhik Kala main Lok Devta  
by DR. ARCHANA SRIVASTAVA

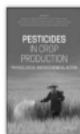


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Pesticides in Crop Production: Physiological and Biochemical Action

Editor(s): Prabhat Kumar Srivastava, Vijay Pratap Singh, Anita Singh, Durgesh Kumar Tripathi, Samiksha Singh, Sheo Mohan Prasad, Devendra Kumar Chauhan  
First published: 14 February 2020  
Print ISBN: 9781119432197 | Online ISBN: 9781119432241 | DOI: 10.1002/9781119432241  
© 2020 John Wiley & Sons Ltd

### About this book

A guide to the diversity of pesticides used in modern agricultural practices, and the relevant social and environmental issues

*Pesticides in Crop Production* offers an important resource that explores pesticide action in plants; pesticide metabolism in soil microbes, plants and animals. [Show all](#)

### Table of Contents

Export Citation(s)

Free Access

Front Matter (Pages: i-xx)

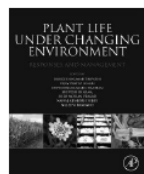
Summary | PDF | Request permissions

Vijay Pratap Singh

ELSEVIER (<https://www.elsevier.com>) Q (<https://www.elsevier.com/search-results>) (https://gl

Home (/) > Life Sciences (/life-sciences)  
> Agricultural and Biological Sciences (/life-sciences/agricultural-and-biological-sciences)  
> Books (/life-sciences/agricultural-and-biological-sciences/books) > Plant Life under Changing Environment

COVID-19 Update: We are currently shipping orders daily. However, due to transit disruptions in some geographies, deliveries may be delayed. To provide all customers with timely access to content, we are offering 50% off Science and Technology Print & eBook bundle options. Terms & conditions. (<https://www.elsevier.com/books-and-journals/special-offers>)



## Plant Life under Changing Environment

1st Edition

Responses and Management

View on ScienceDirect (<https://www.sciencedirect.com/science/book/9780128182048>)



☆☆☆☆ Write a review

Editors: Durgesh Kumar Tripathi, Vijay Pratap Singh, Shivesh Sharma, Sheo Prasad, Naval Kishore Dubey, Nalini Ramawat

Paperback ISBN: 9780128182048

eBook ISBN: 9780128182055

Imprint: Academic Press

Published Date: 8th April 2020

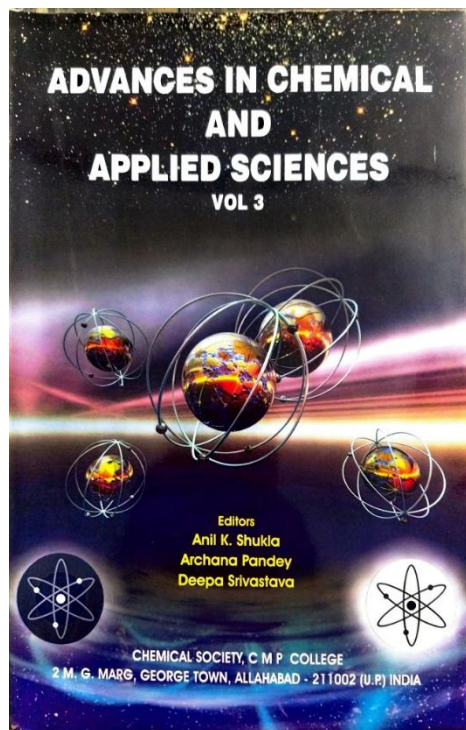
Page Count: 1012

Select country/region:

United States of America

Sales tax will be calculated at check-out

Vijay Pratap Singh



## ADVANCES IN CHEMICAL AND APPLIED SCIENCES

Vol 3

Editors

Anil K. Shukla  
Archana Pandey  
Deepa Srivastava

CHEMICAL SOCIETY, C M P COLLEGE

(Regd. No. 3446AL-32515)

2 M. G. MARG, GEORGE TOWN, PRAYAGRAJ - 211002  
(U.P.) INDIA



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Advances in Chemical and Applied Sciences - Vol 3

ISBN : 978-93-88018-19-7

Editors : Dr. Anil K. Shukla  
Dr. Archana Pandey  
Dr. Deepa Srivastava

Associate Editors : Dr. Sunanda Das  
Dr. Roli Srivastava  
Dr. Babita Agrawal  
Dr. Santosh K. Srivastava  
Dr. Arti Gupta  
Dr. Mridula Tripathi  
Dr. Praveen Tripathi  
Dr. Deepanjali Pandey  
Dr. Pramod Kumar  
Miss. Himani Chaurasia

First Edition : 2020  
Price : 600/-

© : Editors

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, in this book is entirely that of the Author. The Publisher / Editors / Editorial Board bears no responsibility for them whatsoever.

Published & Printed by :

Firstprint Publications  
Tagore Town, Prayagaraj-211002  
Contact : +91-9792737737  
E-mail : [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)

Reg. No. 3446AL-32535 Estd. 2012  
**CHEMICAL SOCIETY  
C.M.P. COLLEGE**

Dr. A.R. Saksena Patron  
Dr. Archana Pandey President  
Dr. A.K. Shukla Vice President  
Dr. Sunanda Das Secretary  
Dr. Roli Srivastava Joint Secretary  
Dr. Babita Agrawal Publication Secretary  
Dr. S.K. Srivastava Treasurer  
Dr. Arti Gupta Convener (Editorial Committee)  
Dr. Mridula Tripathi Convener (Seminar Committee)  
Dr. Om Prakash Convener (Courses Committee)

Official : • Smt. Anju Verma (Administration) • Sri Shaashank Srivastava (Accounts)

REGD. OFFICE : DEPARTMENT OF CHEMISTRY  
2, M.G. Road, George Town, Allahabad-211002 (India)

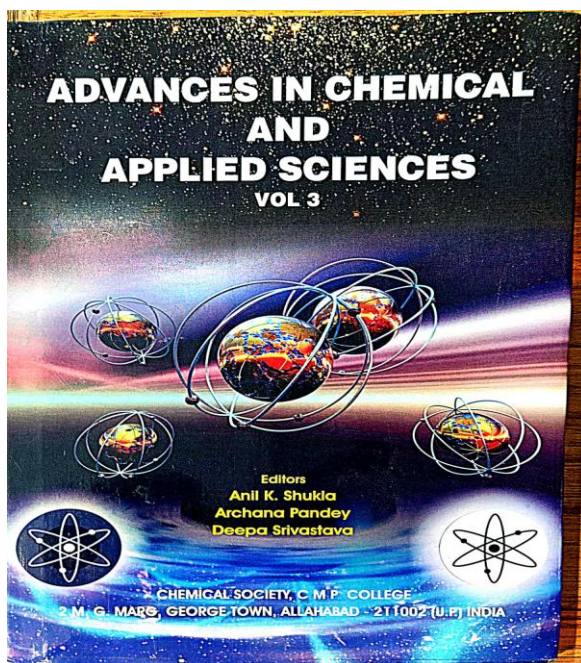
**Objectives of Chemical Society  
CMP College, Allahabad**

This Chemical Society is created with an objective in developing academic environment by organizing National / International lectures, seminars, symposium, workshops etc. in the frontier areas of National priorities. It also aims at chemistry outreach in the form of books, journals and other educational activities that showcase the role of chemistry as a central science. Later on society will also endeavor to make international collaboration and research co-operations and will award meritorious students/ outstanding researchers nominated by statutory members of the Society.

Published By



Address: 144/350 Tagore Town, Allahabad - 211002  
Phone: +91-9792737737  
E-mail: [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)



Advances in Chemical and Applied Sciences - Vol 3

ISBN : 978-93-88018-19-7

Editors : Dr. Anil K. Shukla  
Dr. Archana Pandey  
Dr. Deepa Srivastava

Associate Editors : Dr. Sunanda Das  
Dr. Roli Srivastava  
Dr. Babita Agrawal  
Dr. Santosh K. Srivastava  
Dr. Arti Gupta  
Dr. Mridula Tripathi  
Dr. Praveen Tripathi  
Dr. Deepanjali Pandey  
Dr. Pramod Kumar  
Miss. Himani Chaurasia

First Edition : 2020  
Price : 600/-

© : Editors

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, in this book is entirely that of the Author. The Publisher / Editors / Editorial Board bears no responsibility for them whatsoever.

Published & Printed by :

Firstprint Publications  
Tagore Town, Prayagaraj-211002  
Contact : +91-9792737737  
E-mail : [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Contents	
1. Cancer Chemotherapy - An Overview with Emphasis on Platinum Analogs.....	1
<i>Preeti Singh and Satish Awasthi</i>	
2. Biohybrid Artificial Organs .....	16
<i>Rohi Srivastava</i>	
3. Few Physical Properties of Binary Organic Analogue of Nonmetal-Nonmetal Eutectic System .....	21
<i>Sudha Singh and Janhavi Singh</i>	
4. Ionic Liquid .....	24
<i>Arvi Gupta</i>	
5. Effects of Special Relativity on the Properties of Heavy Elements .....	30
<i>Sudha Agarwal and Nidhi Srivastava</i>	
6. Arsenic Poisoning: Toxicity, Symptoms and Treatment .....	35
<i>Santosh Kumar Srivastava</i>	
7. Sustainable Methods and Approaches Towards the Synthesis of Flavonoids .....	41
<i>Preeti Gupta and Manoj Dhanraj</i>	
8. Dye Sensitized Solar Cells- Approach to Clean Energy .....	66
<i>Mridula Tripathi, Arti Srivastava, Priyanka Chauhan and Abha Tripathi</i>	
9. Ruthenium (III) Uses in Medicinal Chemistry .....	71
<i>Rahul Kanojia and Shekhar Srivastava</i>	
10. Groundwater Recharge and Discharge in Wetlands: A Brief Overview .....	77
<i>Majeed Akhter, Noorul Huda and Mohammad Saqib</i>	
11. A Review on the Synthesis of Polysaccharide Stabilized Metallic Nanoparticles .....	84
<i>Tulika Malviya, Surabhi Gupta, Shehala, Kirti Baranwal, Lalit Mohan Dwivedi and Vandana Singh</i>	
12. Energy Transfer and Ecological Efficiency .....	93
<i>Achala Srivastava</i>	
13. Medicinal Applications of Metal Nanoparticles .....	97
<i>Dipti Porwal, Jitendra Kumar and Krishna Srivastava</i>	
14. <i>Gymnema sylvestre</i> - A Potential Herbal Cure of Diabetes Mellitus .....	106
<i>Babita Agrawal</i>	
15. Crispr Cas-9 Technology For Phytoremediation and Environmental Protection.....	114
<i>Sarita Srivastava</i>	
16. Novel Methods of Extraction of Gingerol .....	121
<i>Ruena S. Lawrence</i>	
17. Sheep Milk Oligosaccharides: Isolation & Characterization .....	128
<i>Ashok Kr. Ranjan</i>	
18. In New World Some Alternative Sources of Food .....	139
<i>Dr. Alok Malviya</i>	

Advances in Chemical and Applied Sciences - Vol 3  
Editors : Anil K. Shukla, Archana Pandey, Deepa Srivastava  
ISBN : 978-93-88018-19-7  
Edition : 2020

## *Gymnema sylvestre* - A Potential Herbal Cure of Diabetes Mellitus

Babita Agrawal

### Introduction

Diabetes mellitus is a cluster of inter-related metabolic syndrome symbolized by hyperglycemia and carbohydrate, lipid and protein metabolic disorders which ultimately results in defects in either in the secretion of insulin or insulin action or both<sup>1</sup>. Diabetes mellitus is a common disorder among the Indian population. It is estimated that diabetes would affect approximately 57 million people by the year 2025. WHO reported that approximately 171 million people were worldwide suffering from diabetes in 2000 and the prevalence is projected to 366 million by 2030.<sup>2</sup>

Therapeutic options for diabetes are diet, exercise and oral hypoglycemic drugs. Plant drugs are frequently considered to be less toxic and free from side effects than synthetic one. The modern pharmacopoeia contains at least 25% of plant-derived drugs. Ayurveda of the Atharva Veda enlists the usage and efficacy of herbal formulations in the healing of diabetes<sup>3</sup>.

*Gymnema sylvestre* is one of the natural herb [Figure 1.] that has been extensively used in traditional medicine for almost two thousand years. *Gymnema sylvestre* is popularly known as gurmar and madhunashini is a perennial woody vine that found in tropical areas of India, Australia and Africa as well as in Asia, Malaysia, Japan, Vietnam and Sri Lanka<sup>4</sup>.

The main parts of *Gymnema sylvestre* plant used for herbal preparations are its leaves and roots<sup>5</sup>. The leaves are used mostly as hypoglycemic, hypolipidemic, antiviral, diuretic, anti-allergic, antibiotic, anti-analgesic, and anti-rheumatic agents<sup>6</sup>. It may help to fight sugar cravings and lower high blood sugar levels. The plant may also play a beneficial role in diabetes treatment, as it may help stimulate insulin secretion and the regeneration of pancreas islet cells, both of which can help lower blood sugar.

Department of Chemistry, CMP Degree College (A  
constituent PG College of University of Allahabad)  
Prayagraj (U. P.) India  
E-mail : babitaprashantagrwal@gmail.com

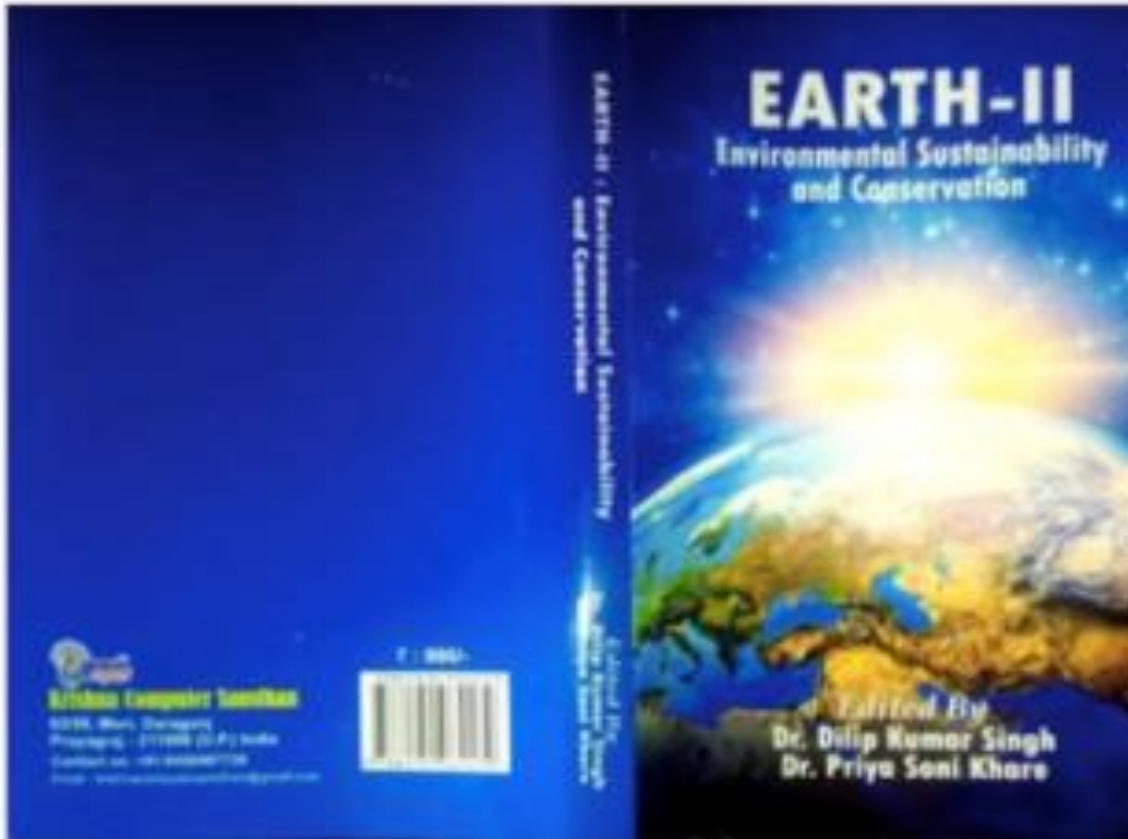


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



**ISBN : 978-81-962611-1-0**

**Publisher**  
Kishan Computer Services  
K/17B, Main, Mangang, Prayagraj (U.P.) India  
Contact : 945 2024271/30  
Email : [kishancomputerservices@gmail.com](mailto:kishancomputerservices@gmail.com)

**EARTH-II**  
*Environmental Sustainability and Conservation*

**Edited By**  
Dr. Dilip Kumar Singh  
Dr. Priya Soni Khore

**© : Author**

**First Edition - 2020**

**Price : ₹ 90**

**Page Setting**  
Mechanical / Manual

**Printed By**  
Self-Printing System  
New Delhi

## Challenges to Sustainable Safe Drinking Water: Quality of safe drinking water is decreasing at an alarming rate

**Pravin Kumar Singh\*, Vikal Jaiswal, Anshu Srivastava† and Praveen Prasad Singh†**  
\*Department of Chemistry, C.M.P. Degree College Prayagraj (U.P.)  
†Department of Chemistry, United College of Engineering & Research, Noida, Prayagraj (U.P.) India

**Introduction**

Water is one of the most important of all natural resources on our earth. According to World Health Organization (WHO) about 20% of the world's population lacks access to safe drinking water, and more than 1 billion people die annually from illness associated with safe drinking water or sanitation systems. Due to increased human population, industrial, agricultural and domestic use of fertilizers in agriculture and over-fishing activity, quality of drinking water is decreasing at alarming rate. It is therefore use of contaminated drinking water, human population suffers from a variety of water borne diseases.

Safe and easily available water is important for human health, whether it is used for drinking, food production, domestic use or recreational purposes. Drinking water having safe and good quality is the basis for good human health. Water provides some essential elements, but when polluted it may become the source of undesirable substances dangerous to human health and cause disease such as kidney cancer, adverse reproductive outcomes, cardiovascular

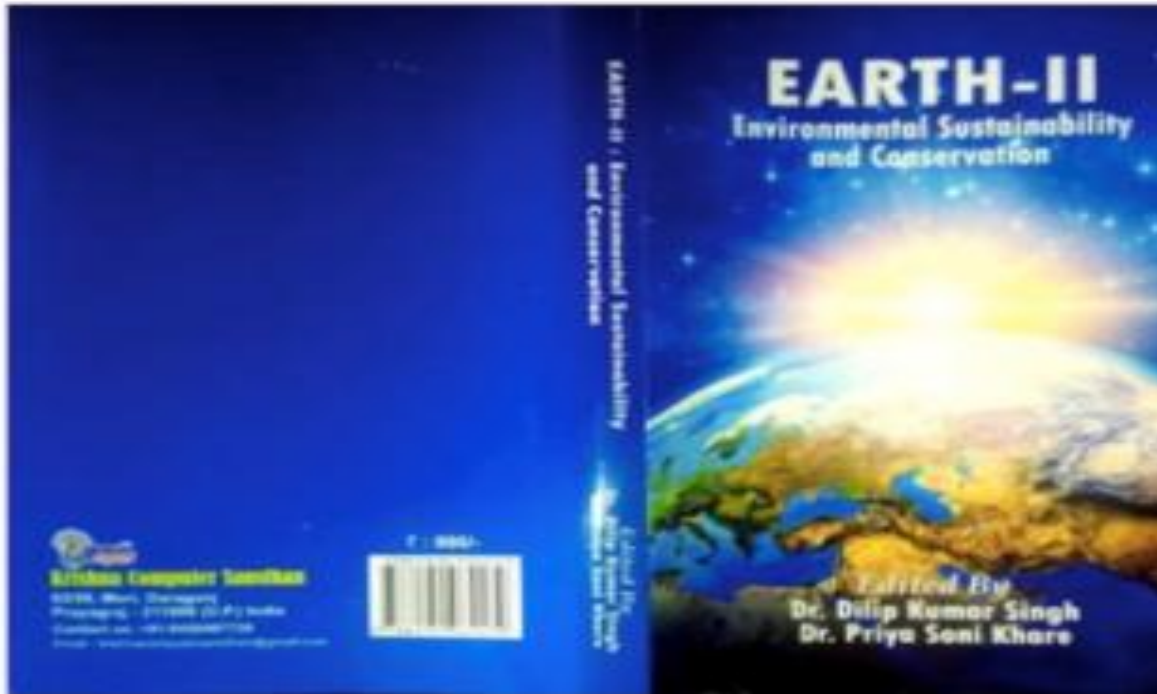


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



ISBN : 978-81-949461-1-4

Publisher  
Kishore Computer Services  
K/37B, Main, Etawah, Prayagrah-201006 (U.P.) India  
Contact : 0531-262607/7130  
Email : kishore.computerservices@gmail.com

**CATALOGUE**  
(Environmental Sustainability and Conservation)

Edited By  
Dr. Dilip Kumar Singh  
Dr. Priya Soni Khare

Dr. Editor

First Edition : 2020

Price : 900

Page Number  
Seventeen (17) Pages

Printed by  
Kishore Printing System  
New Delhi

## Challenges to Sustainable Safe Drinking Water: Quality of safe drinking water is decreasing at an alarming rate

Dr. Dilip Kumar Singh\*, Vikal Srivastava,  
Anita Srivastava† and Priya Soni Khare‡  
\*Department of Chemistry,  
C. M. P. Degree College Prayagrah (U.P.)  
†Department of Chemistry,  
United College of Engineering & Research,  
Noida, Prayagrah (U.P.) India

**Introduction**

Water is one of the most important of all natural resources on our earth. According to World Health Organization (WHO) about 20% of the world's population lacks access to safe drinking water, and more than 1 billion people live generally free-thirst associated with safe drinking water or inadequate hygiene. Due to increased human population, excessive industrialization, use of fertilizers in agriculture and over-use of water, quality of drinking water is decreasing at alarming rate. It is therefore use of contaminated drinking water, human population suffers from a variety of water borne diseases.

Safe and easily available water is important for human health, whether it is used for drinking, food production, domestic use or recreational purposes. Drinking water having safe and good quality is the basis for good human health. Water provides some essential elements, but when polluted it may become the cause of waterborne diseases, human population suffers from a variety of water borne diseases.



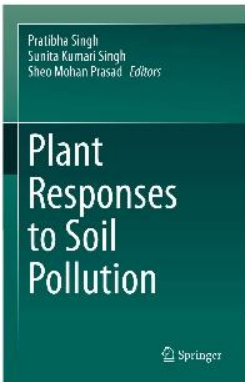
# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

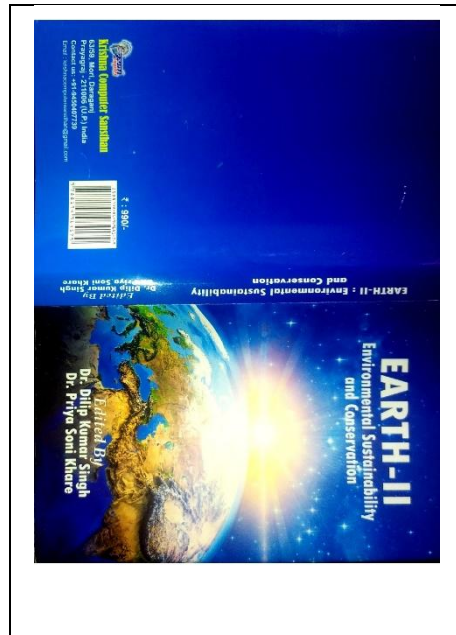
(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)




	<p>Pratibha Singh • Sunita Kumari Singh • Sheo Mohan Prasad Editors</p> <p>Plant Responses to Soil Pollution</p> <p>Springer</p>	<p>Pratibha Singh • Sunita Kumari Singh • Sheo Mohan Prasad Editors</p> <p>Plant Responses to Soil Pollution</p> <p>Springer</p>	<p>Effect of Soil Polluted by Heavy Metals: Effect on Plants, Bioremediation and Adaptive Evolution in Plants</p> <p>5</p> <p>From: 1 Crank</p> <p>Abstract</p> <p>Keywords</p> <p>1.1 Introduction</p>
---	--	--	---



**EARTH-II**  
*[Environmental Sustainability  
and Conservation]*

Edited By  
**Dr. Dilip Kumar Singh**  
Assistant Professor  
Department of Education  
CMP College, Prayagraj

**Dr. Priya Soni Khare**  
Assistant Professor  
Department of Education  
CMP College, Prayagraj

  
Publisher  
**Krishna Computer Sansthan**  
Prayagraj

ISBN : 978-81-949641-7-9

Publisher  
**Krishna Computer Sansthan**  
63/59, Mori, Daraganj, Prayagraj 211006 (U.P.)  
Contact : +91-9450407739  
Email : [krishnacompusersansthan@gmail.com](mailto:krishnacompusersansthan@gmail.com)

**EARTH-II**  
*[Environmental Sustainability and Conservation]*

Edited By  
**Dr. Dilip Kumar Singh**  
**Dr. Priya Soni Khare**

© : Editor

First Edition : 2020

Price : 990

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, in this book is entirely that of the Author. The Publishers & Printer bear no responsibility for them whatsoever.

Page Setting  
**Brahmanand Mishra**

Printed by :  
**Infinity Imaging System**  
New Delhi



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Editorial Board

**Dr. Neeta Sinha**  
Associate Professor  
Department of Education  
CMP College, Prayagraj

**Dr. Abha Singh**  
Associate Professor  
Department of Education  
CMP College, Prayagraj

**Dr. Sangeeta**  
Associate Professor  
Department of Education  
CMP College, Prayagraj

**Dr. Santosh Kumar  
Srivastava**  
Associate Professor  
Department of Chemistry  
CMP College, Prayagraj

**Dr.S.P. Verma**  
Associate Professor  
Department of A.H. & Dairy  
Science  
Kulbhaskar Ashram PG  
collegePrayagraj

**Dr. Vidyapati**  
Associate Professor  
Department of Education  
Ewing Christian College,  
Prayagraj

**Dr. Dinesh Singh**  
Assistant Director/Assistant  
Professor  
School of Education  
UPRTOU, Prayagraj

**Dr. RuchiDubey**  
Assistant Professor  
Department of Education  
University of Allahabad,  
Prayagraj

**Dr. PrateekUpadhyay**  
Assistant Professor  
Department of Teacher Education  
K.N.Government P.G. College  
Gyanpur, Bhadohi

**Dr. PravinKumar Singh**  
Assistant Professor  
Department of Chemistry  
CMP College, Prayagraj

## Challenges to Sustainable Safe Drinking Water: Quality of safe drinking water is decreasing at an alarming rate

Pravin Kumar Singh\*, Vishal Srivastava\*,  
Arjita Srivastava\* and Praveen Pratap Singh\*

\*Department of Chemistry,  
C.M.P. Degree College Prayagraj-211002

\*Department of Chemistry,  
United College of Engineering & Research,  
Naini, Prayagraj 211010, India

### Introduction

Water is one of the most important of all natural resources on our earth. According to World Health Organization (WHO) about 20% of the world's population lacks access to safe drinking water, and more than 5 million people die annually from illness associated with safe drinking water or inadequate hygiene. Due to increased human Population, civilization, industrialization, use of fertilizers in agriculture and man-made activity, quality of drinking water is decreases in alarming rate. It is therefore use of contaminated drinking water, human population suffers from a variety of water borne diseases.

Safe and easily available water is important for human health, whether it is used for drinking, food production, domestic use or recreational purposes. Drinking water having safe and good quality is the basis for good human health. Water provides some essential elements, but when polluted it may become the source of undesirable substances dangerous to human health and cause disease such as, various cancers, adverse reproductive outcomes, cardiovascular



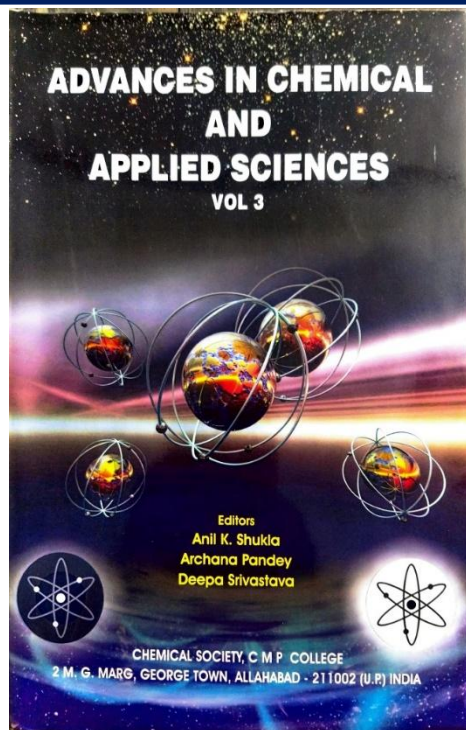


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## ADVANCES IN CHEMICAL AND APPLIED SCIENCES

Vol 3

Editors

Anil K. Shukla  
Archana Pandey  
Deepa Srivastava

CHEMICAL SOCIETY, C M P COLLEGE  
(Regd. No. 3446/AL-32535)

2 M. G. MARG, GEORGE TOWN, PRAYAGRAJ - 211002  
(U.P.) INDIA

Advances in Chemical and Applied Sciences - Vol 3

ISBN : 978-93-88018-19-7

Editors : Dr. Anil K. Shukla  
Dr. Archana Pandey  
Dr. Deepa Srivastava

Associate Editors : Dr. Sunanda Das  
Dr. Roli Srivastava  
Dr. Babita Agrawal  
Dr. Santosh K. Srivastava  
Dr. Arti Gupta  
Dr. Mridula Tripathi  
Dr. Praveen Tripathi  
Dr. Deepanjali Pandey  
Dr. Pramod Kumar  
Miss. Himani Chaurasia

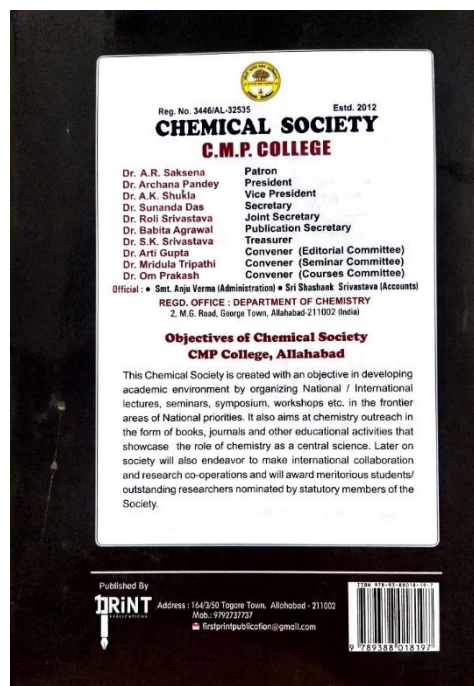
First Edition : 2020  
Price : 600/-

© : Editors

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, this book is entirely that of the Author. The Publisher / Editors / Editorial Board bears no responsibility for them whatsoever.

Published & Printed by :

Firstprint Publications  
Tagore Town, Prayagaraj-211002  
Contact : +91-9792737737  
E-mail : [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)



Reg. No. 3446/AL-32535 Estd. 2012  
**CHEMICAL SOCIETY  
C.M.P. COLLEGE**

Dr. A.R. Saksena	Patron
Dr. Archana Pandey	President
Dr. A.K. Shukla	Vice President
Dr. Sunanda Das	Secretary
Dr. Roli Srivastava	Joint Secretary
Dr. Babita Agrawal	Publication Secretary
Dr. S.K. Srivastava	Treasurer
Dr. Arti Gupta	Convener (Editorial Committee)
Dr. Mridula Tripathi	Convener (Seminar Committee)
Dr. Om Prakash	Convener (Courses Committee)

Official : • Smt. Kaja Verma (Administration) • Sri Shashank Srivastava (Accounts)

REGD. OFFICE : DEPARTMENT OF CHEMISTRY  
2, M.G. Road, George Town, Allahabad 211002 (India)

**Objectives of Chemical Society  
CMP College, Allahabad**

This Chemical Society is created with an objective in developing academic environment by organizing National / International lectures, seminars, symposium, workshops etc. in the frontier areas of National priorities. It also aims at chemistry outreach in the form of books, journals and other educational activities that showcase the role of chemistry as a central science. Later on society will also endeavor to make international collaboration and research co-operations and will award meritorious students/ outstanding researchers nominated by statutory members of the Society.

Published By

**DRINT**  
PUBLICATIONS

Address : 164/350 Tagore Town, Allahabad - 211002  
Mob. 9792737737  
[firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)





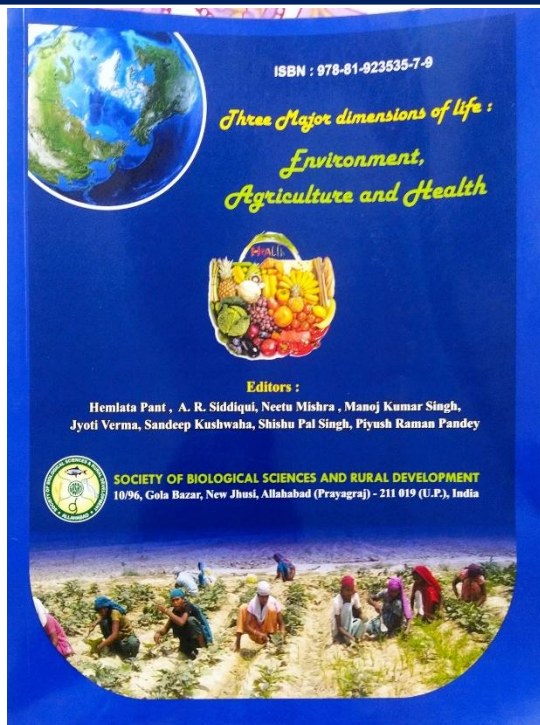
# चौधरी महादेव प्रसाद महाविद्यालय

## C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)



Under the Strengthening Component of DBT Star College Scheme  
Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



ISBN : 978-81-923535-7-9

Three Major dimensions of life :  
*Environment,  
Agriculture and Health*



Editors :

Hemlata Pant , A. R. Siddiqui, Nectru Mishra , Manoj Kumar Singh,  
Jyoti Verma, Sandeep Kushwaha, Shishu Pal Singh, Piyush Raman Pandey



SOCIETY OF BIOLOGICAL SCIENCES AND RURAL DEVELOPMENT  
10/96, Gola Bazar, New Jhusi, Allahabad (Prayagraj) - 211 019 (U.P.), India

S.N.	Content	Page No.
21.	DIMENSIONS OF INDIA'S ECONOMY DIPLOMACY Prayash Pandey	115-117
22.	INDICES OF AGRICULTURAL SUSTAINABILITY Shiv Prasad Vishwakarma	118-120
23.	IMMUNOMODULATORY ACTIVITY OF MADHUCA LONGIFOLIA Sanatosh Kumar Singh, Upasana Singh and Satish Kumar Verma	121-123
24.	PROCESSING AND PACKAGING OF VEGETABLES Vinita Singh and Sachana Vaish	124-128
25.	CERTAIN FUNGAL DISEASES OF PLANTS BELONG TO CUCURBITACEAE FAMILY Pallavi Rai and Priya Singh	129-133
26.	IMPORTANCE AND HIGHER SCOPE OF STAR ANISE SPICE FOR WEST KAMENG..... T. S. Mishra, K. K. Mishra and H. M. Singh	134-136
27.	ORGANIC FARMING IN INDIAN AGRICULTURE Vaandana Mathur	137-139
28.	USE AND IMPORTANCE OF BIO FERTILIZER Navreet Kumar Mishra, T. S. Mishra, and H.M. Singh	140-141
29.	ROLE OF AGRICULTURE AND AGRIBUSINESS IN INDIAN AGRICULTURE Pradeep Kumar, Vinay Kumar and Ram Jeet	142-144
30.	EFFICACY OF DESERT MADAR - CALOTROPIS PROCERA Chetan D. Thakur and K. S. Dahiya	145-146
31.	ROLE OF PLANTS TO BEAT COVID-19 Varsha Jaiswal	147-148
32.	ZERO BUDGET NATURAL FARMING Ashutosh Mishra	149-150
33.	HAEMOPHILIA: A BLEEDING DISORDER Uma Rani Agrawal	151-153
34.	TOXICITY, MECHANISM AND HEALTH EFFECTS OF CADMIUM (Cd) Kavita Verma, Nikunaj Bhardwaj, Hina Qamar, Dushyant Kumar Chauhan and Divya Singh	154-163
35.	NUTRITION AND WEIGHT CONTROL DIET Sudhansu Mishra and Vinita Singh	164-171
36.	CHEMICAL PESTICIDES USE IN AGRICULTURE: CAUSE HAZARDOUS ... Amar Bahadur	172-180
37.	LASODIA: A POTENTIAL FRUIT WITH IMMENSE PHARMACOLOGICAL PROPERTIES Deepmala Gupta	181-183
38.	ROLE OF HEALTH, HYGIENE AND SANITATION IN MANAGEMENT OF PANDEMICS Prachi Srivastava	184-186
39.	IMPORTANCE OF FRUITS AND VEGETABLES IN HUMAN NUTRITION Aarti Sharma and Nereja Gupta	187-192
40.	SYNTHESIS AND CHARACTERIZATION OF CROSS-LINKED GRAFT COPOLYMER ... Aarti Srivastava, Rajesh Kumar, Mehdia Tripathi, and Swati Dewangan	193-199
41.	MECHANISM OF ACTION AND CHEMISTRY OF SANITIZERS AND DISINFECTANT Archana Pandey and Reel Srivastava	200-204

ISBN : 978-81-923535-7-9

November, 2020, SBSRD, Prayagraj, U.P., India

Published by : Society of Biological Sciences and Rural Development  
: Prayagraj, U.P., India  
E-mail : [sbsrdallahabad@gmail.com](mailto:sbsrdallahabad@gmail.com)  
: [panthemlata8@gmail.com](mailto:panthemlata8@gmail.com)  
Website : [www.sbsrd.org](http://www.sbsrd.org)

For information on the availability of this publication, Please write to :

**Dr. Hemlata Pant**  
Secretary  
Society of Biological Sciences and Rural Development  
10/96, Gola Bazar, New Jhusi, Prayagraj-211019, (U.P.), India.  
Mobile : +91 8005 321 428, 9335 153 392

All rights reserved @ 2020 Society of Biological Sciences and Rural Development  
Price : ₹2000/- for Indian and \$ 125/- for abroad

*Three Major dimensions of life: Environment, Agriculture and Health*  
Hemlata Pant, A. R. Siddiqui, Nectru Mishra, Manoj Kumar Singh,  
Jyoti Verma, Sandeep Kushwaha, Shishu Pal Singh and Piyush Raman Pandey  
© 2020, Society of Biological Sciences and Rural Development

ISBN : 978-81-923535-7-9

### MECHANISM OF ACTION AND CHEMISTRY OF SANITIZERS AND DISINFECTANT

Hemlata Pant and Reel Srivastava  
Society of Biological Sciences and Rural Development,  
Prayagraj College (A Constituent PG College of University of Allahabad),  
10/96, Gola Bazar, New Jhusi, Prayagraj-211019, (U.P.), India  
Email : [panthemlata8@gmail.com](mailto:panthemlata8@gmail.com)

**Introduction**  
The world is facing a pandemic in the form of the COVID-19 outbreak. This pandemic came into light on 31<sup>st</sup> December 2019 when China informed the World Health Organization about spreading case of disease like pneumonia arising Wuhan city in Hubei province. Later on this disease started spreading to more provinces of China and to the rest of the world. The WHO has already declared it as a pandemic. The virus has been named SARS-CoV-2 and the disease is now called COVID-19. The SARS means - severe acute respiratory syndrome and COVID means Coronavirus disease. It was first reported in 2019 so it is named as COVID-19. It is genetically similar to the bat Coronavirus. It is zoonotic in origin i.e. the disease is caused by germ that spread between animals and humans. This virus is very contagious and has rapidly spread throughout the world. Corona virus has a crown like appearance having spikes. It is an enveloped virus with spikes like glycoproteins. It belongs to the Corona- Viridae family, the sub-family Coronavirinae and order is Nidovirales. To win the battle against coronavirus, disinfectants and sanitizers are playing a very important role.

**Sanitizers and disinfectants**  
According to world Health Organization (WHO), hand sanitizers containing alcohol are capable to inactivate coronavirus SARS-CoV-2. There is no antiviral drug or vaccine which can prevent the spread of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes COVID-19. WHO recommends two alcohol based formulations to kill coronavirus.

**Formulation 1**  
It contain 80% (vol/vol) ethanol, 1.45% (vol/vol) glycerin and 0.125% (vol/vol) hydrogen peroxide.

**Formulation 2**  
The composition of this sanitizer is 75% isopropanol (vol/vol), 1.45% glycerin (vol/vol) and 0.125% hydrogen peroxide. The Institute Pasteur of Germany showed that both these formulations inactivate Corona virus in 30 seconds.

**Mechanism of action of alcohol on coronavirus**  
Generally viruses contain genetic material. It may be DNA or RNA. Both DNA and RNA may be single stranded or double stranded. These DNA and RNA may be positively sensed or negatively sensed. If it is directly translatable into protein if it were RNA. If it were DNA it is known as positive sense DNA. On the other hand, complementary strand of messenger RNA is negative sense RNA. Apart from the genetic material, viruses also contain a protein coat which is known as capsid. Viruses may contain a lipid envelope (not all viruses). The most important fact about viruses is that they can replicate only inside a host only. Outside a host, they are not able to survive. The life cycle of a virus consists of following steps- Attachment to the host, penetration, biosynthesis, maturation and release. Scientists are focusing on altering the structure and function of the viral envelope derived from the host lipid envelopes, the spikes, etc. Scientists believe that alcohols have strong virucidal effect, which surrounds the genetic material itself. Scientists believe that alcohols have strong virucidal effect.

200

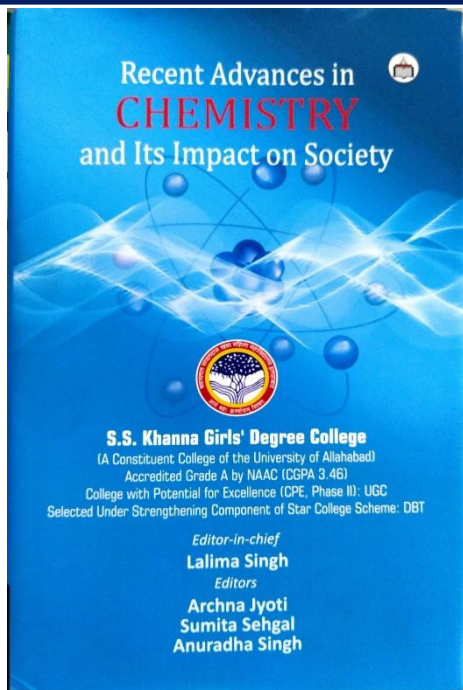


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

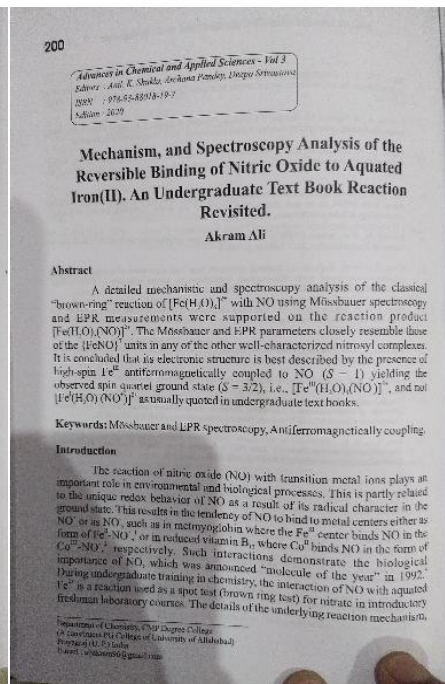
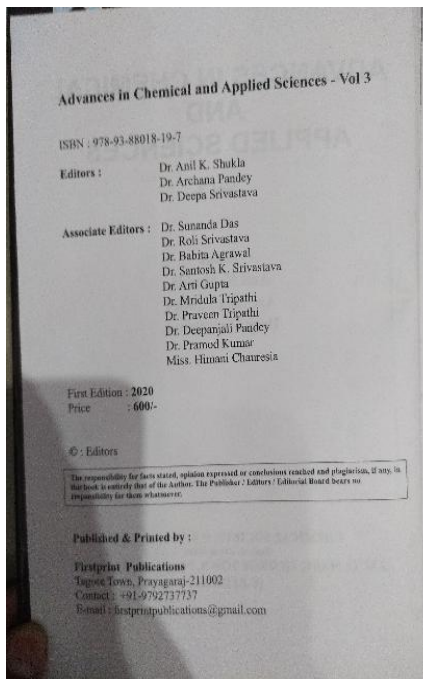
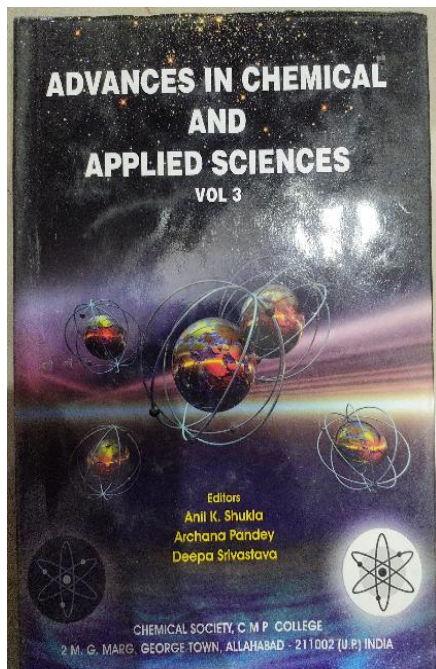
Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Contents

Preface	5
About the College	7
Indian Science Congress Association (ISCA)	9
1. Recent Advances in Catalysis in Organic Synthesis: A First-hand Experience Fatima Tufail, Mohammad Saqib, Jagdamba Singh	15
2. Polymers – Emerging Smart Materials of the New Age Tulika Malviya, Shehala, Surabhi Gupta, Lalit Mohan Dwivedi, Mani Prabha, Aasyhee and Vandana Singh	45
3. Recent Advances in Treatment of HIV/AIDS Infection and its Social Implication Vishal Kumar Singh, Anuradha Singh and Ramendra K. Singh	72
4. Sustainable Chemistry: Envisioning a Sustainable Society Lalima Singh	95
5. Dolphin as Bioindicator – A Review Ashwani Sharma, Kuldeep Mishra and Archana Pandey	120
6. Health Effects of Atmospheric Pollution Arati Gupta	132
7. Melatonin and Circadian Rhythm Deepa Srivastava	145
8. Antihepatotoxic Activity of Different Solvent Extracts of Aerial Part of <i>Plantago major</i> against CCL <sub>4</sub> induced Hepatotoxicity in Wistar Rats Jyoti Vandana Mani, A. K. Gupta and Alok Mukerjee	152



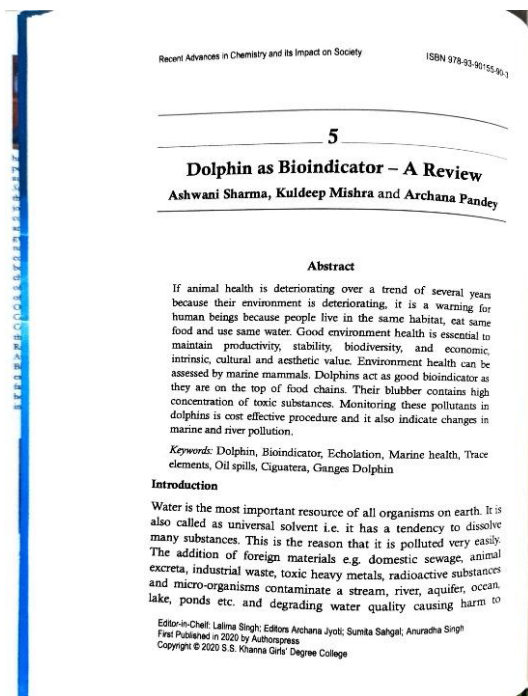


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

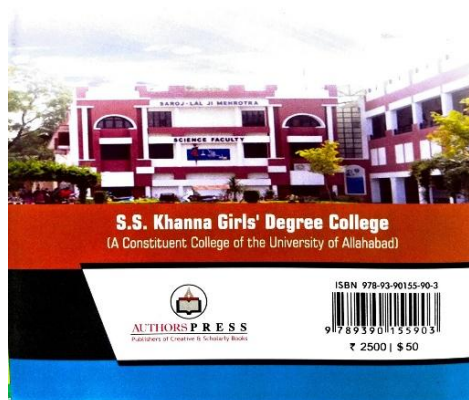
Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



All kinds of scientific research revolve around chemical science and serves as a basic and latest tool for its development. It is only through this systematic scientific research that we divert ourselves of our preconceived notion and superstition and moves towards understanding of ourselves and our world.

The Department of Chemistry, S.S. Khanna Girls Degree College, a promising constituent college of the University of Allahabad, in collaboration with Allahabad Chapter of Indian Science Congress Association (ISCA) organized a National Seminar on the topic "Recent Advances in Chemical sciences and its Impact on Society", on 26th-27th November, 2019, a theme highly relevant in the present circumstances. This book is the compilation of seminar proceeding in edited form. It includes the viewpoints of learned fraternity and a flourishing base for novel researches in the field of chemistry. All the contributors of this book are having expertise in their respective research field and need to be praised for their contribution in book publication. It is expected that this book will stimulate discussion and make significant contribution for updating knowledge in the areas of newer research in chemistry.



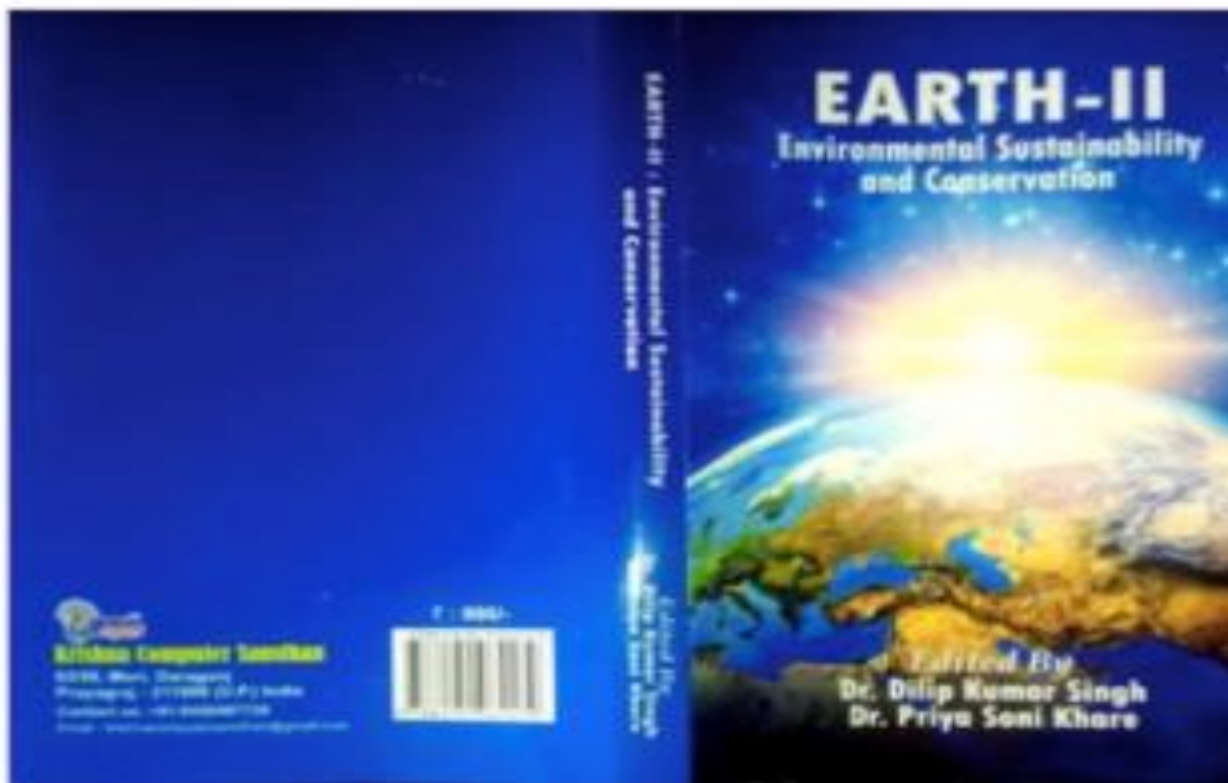


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



ISBN : 978-81-949411-1-4

Publisher  
Kishan Computer Solutions  
45/79, Main, Shopping, Prayagraj 221004 (U.P.)  
Contact : 9451423447/7149  
Email : kishancomputer@gmail.com

**EARTH-II**  
(Environmental Sustainability and Conservation)

Edited By  
Dr. Dilip Kumar Singh  
Dr. Priya Soni Khora

© : Author

First Edition : 2020

Price : 990

The copyright for this book is reserved by the publisher. No part of this book may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

Page Setting  
Mechanical Works

Printed By :  
Definity Imaging Systems  
New Delhi

## Challenges to Sustainable Safe Drinking Water: Quality of safe drinking water is decreasing at an alarming rate

Pratik Kumar Singh\*, Vibhav Srivastava,  
Ajay Srivastava† and Praveen Prasad Singh†  
\*Department of Chemistry,  
C. M. P. Degree College Prayagraj (U.P.)  
†Department of Chemistry,  
Central College of Engineering & Research,  
Noida, Prayagraj (U.P.) India

### Introduction

Water is one of the most important of all natural resources on our earth. According to World Health Organization (WHO) about 20% of the world's population lacks access to safe drinking water and more than 1 million people die annually from diseases associated with safe drinking water or inadequate hygiene. Due to increased human population, industrialization, urbanization and agriculture and associated activity, quality drinking water is decreasing at alarming rate. It is therefore use of contaminated drinking water, human population suffers from a variety of water borne diseases.

Safe and easily available water is important for human health, whether it is used for drinking, food production, domestic use or recreational purposes. Drinking water having safe and good quality is the basis for good human health. Water provides some essential elements, but when polluted it may become the source of waterborne diseases, which are dangerous to human health and cause disease such as various cancers, adverse reproductive outcomes, cardiovascular



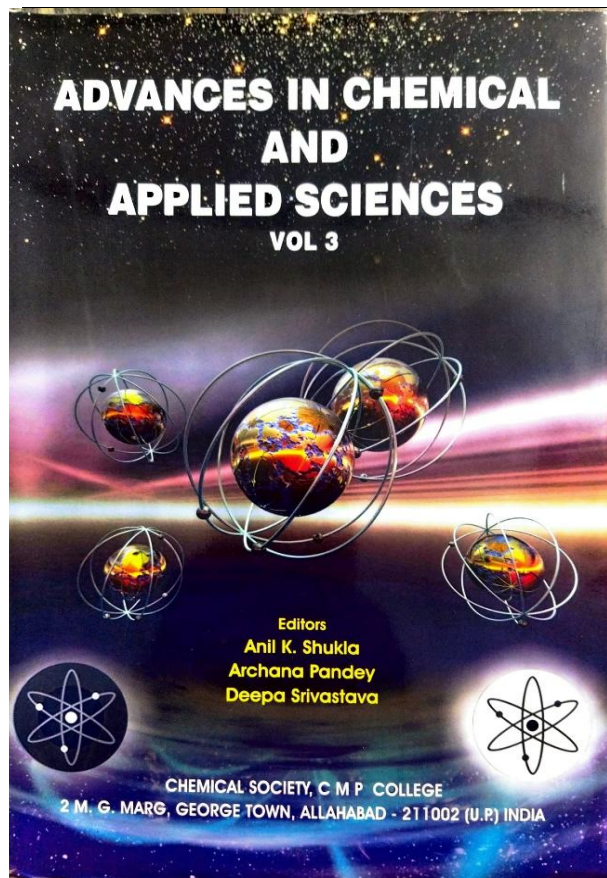


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## ADVANCES IN CHEMICAL AND APPLIED SCIENCES

Vol 3

Editors

Anil K. Shukla  
Archana Pandey  
Deepa Srivastava

CHEMICAL SOCIETY, C M P COLLEGE

(Regd. No. 3446/AL-32535)

2 M. G. MARG, GEORGE TOWN, PRAYAGRAJ - 211002  
(U.P.) INDIA



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Advances in Chemical and Applied Sciences - Vol 3

ISBN : 978-93-88018-19-7

Editors : Dr. Anil K. Shukla  
Dr. Archana Pandey  
Dr. Deepa Srivastava

Associate Editors : Dr. Sunanda Das  
Dr. Roli Srivastava  
Dr. Babita Agrawal  
Dr. Santosh K. Srivastava  
Dr. Arti Gupta  
Dr. Mridula Tripathi  
Dr. Praveen Tripathi  
Dr. Deepanjali Pandey  
Dr. Pramod Kumar  
Miss. Himani Chaurasia

First Edition : 2020  
Price : 600/-

© : Editors

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, of this book is entirely that of the Author. The Publisher / Editors / Editorial Board bears no responsibility for them whatsoever.

Published & Printed by :

Firstprint Publications  
Tagore Town, Prayagaraj-211002  
Contact : +91-9792737737  
E-mail : [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)



Reg. No. 3446/AL-32535

Estd. 2012

## CHEMICAL SOCIETY C.M.P. COLLEGE

Dr. A.R. Saksena	Patron
Dr. Archana Pandey	President
Dr. A.K. Shukla	Vice President
Dr. Sunanda Das	Secretary
Dr. Roli Srivastava	Joint Secretary
Dr. Babita Agrawal	Publication Secretary
Dr. S.K. Srivastava	Treasurer
Dr. Arti Gupta	Convener (Editorial Committee)
Dr. Mridula Tripathi	Convener (Seminar Committee)
Dr. Om Prakash	Convener (Courses Committee)

Official : • Smt. Anju Verma (Administration) • Sri Shashank Srivastava (Accounts)

REGD. OFFICE : DEPARTMENT OF CHEMISTRY  
2, M.G. Road, George Town, Allahabad-211002 (India)

### Objectives of Chemical Society CMP College, Allahabad

This Chemical Society is created with an objective in developing academic environment by organizing National / International lectures, seminars, symposium, workshops etc. in the frontier areas of National priorities. It also aims at chemistry outreach in the form of books, journals and other educational activities that showcase the role of chemistry as a central science. Later on society will also endeavor to make international collaboration and research co-operations and will award meritorious students/ outstanding researchers nominated by statutory members of the Society.

Published By



Address : 164/2/50 Tagore Town, Allahabad - 211002  
Mob. : 9792737737  
[firstprintpublication@gmail.com](mailto:firstprintpublication@gmail.com)



9 789388 018197

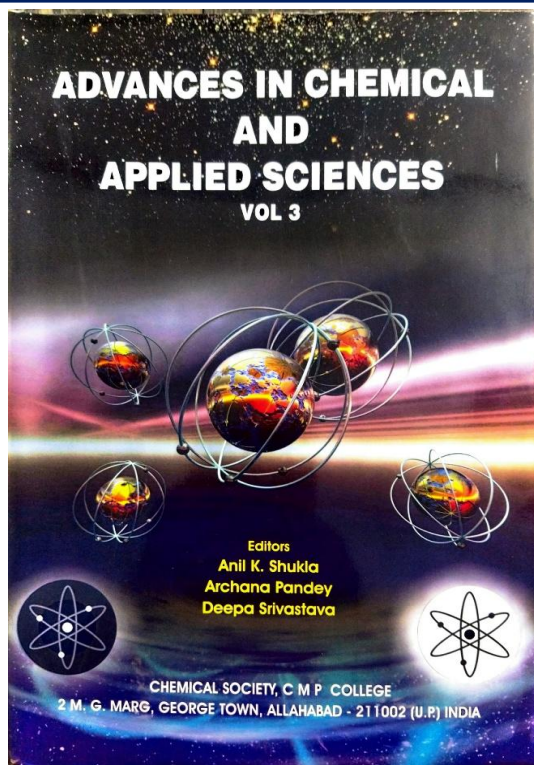


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Advances in Chemical and Applied Sciences - Vol 3

ISBN : 978-93-88018-19-7

Editors : Dr. Anil K. Shukla  
Dr. Archana Pandey  
Dr. Deepa Srivastava

Associate Editors : Dr. Sunanda Das  
Dr. Roli Srivastava  
Dr. Babita Agrawal  
Dr. Santosh K. Srivastava  
Dr. Arti Gupta  
Dr. Mridula Tripathi  
Dr. Praveen Tripathi  
Dr. Deepanjali Pandey  
Dr. Pramod Kumar  
Miss. Himani Chaurasia

First Edition : 2020  
Price : 600/-

© : Editors

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, this book is entirely that of the Author. The Publisher / Editors / Editorial Board bears no responsibility for them whatsoever.

Published & Printed by :

Firstprint Publications  
Tagore Town, Prayagaraj-211002  
Contact : +91-9792737737  
E-mail : [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)





# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



*Advances in Chemical and Applied Sciences - Vol 3*  
Editors : Anil K. Shukla, Archana Pandey, Deepa Srivastava  
ISBN : 978-93-88018-19-7  
Edition : 2020

## Arsenic Poisoning: Toxicity, Symptoms and Treatment

Santosh Kumar Srivastava

Water, water, everywhere, Nor any drop to drink.

— Samuel Taylor Coleridge

### Introduction

Arsenic is known and used since the history of human civilization due to its highly toxic properties [1]. Until recently different arsenic compounds such as potassium arsenite, arsenic iodide or arsenic trichloride were used, as medication for a variety of illness. Before the 'preantibiotic era', the discovery of salvarsan (arsphenamine) made it the main medicine used against syphilis. Generally uses of these drugs have been largely discontinued because of high toxicity of arsenic compounds [2-6].

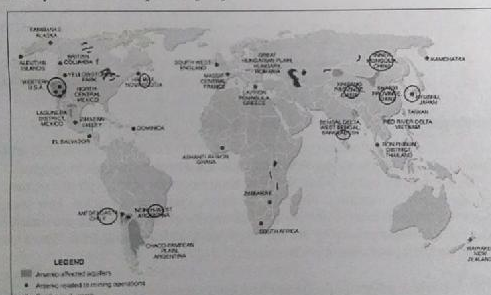


Figure 1. Documented cases of arsenic problems in groundwater related to natural contamination (Smedley, Kinniburgh 2001).

\*Chemistry Department, CMP Degree College, (A constituent PG College of University of Allahabad) Prayagraj (U. P.) India  
E-mail : santos1976@rediffmail.com

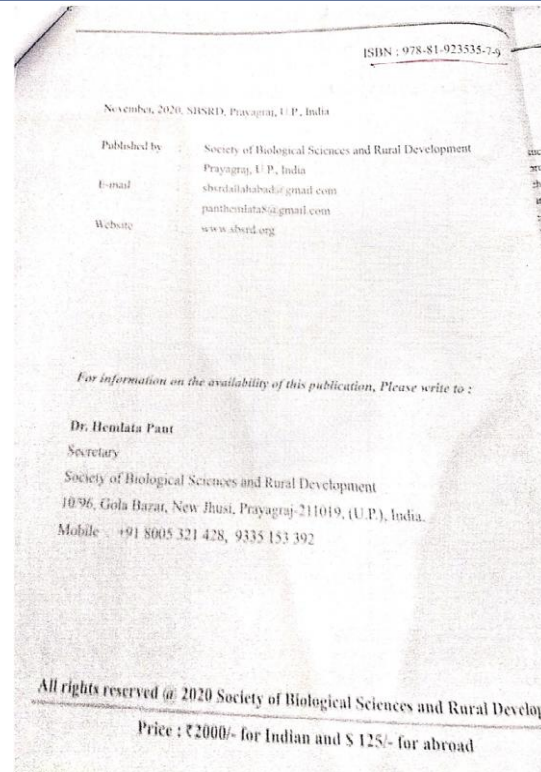
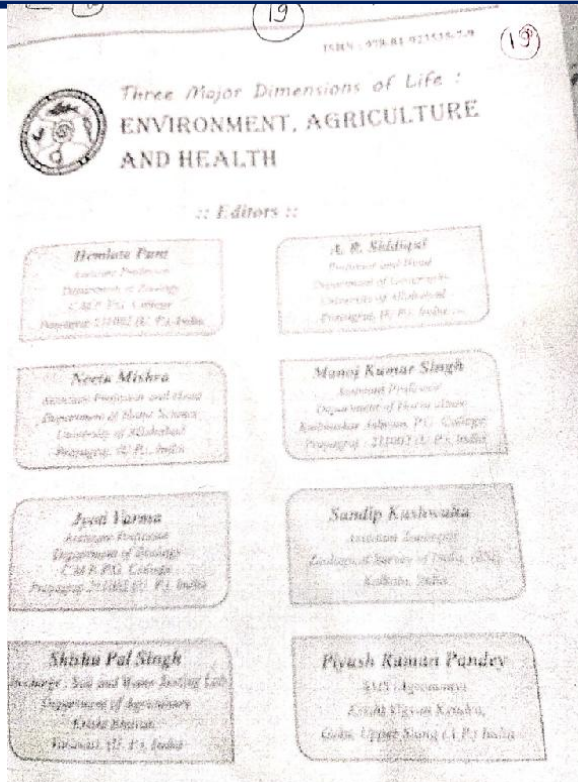


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



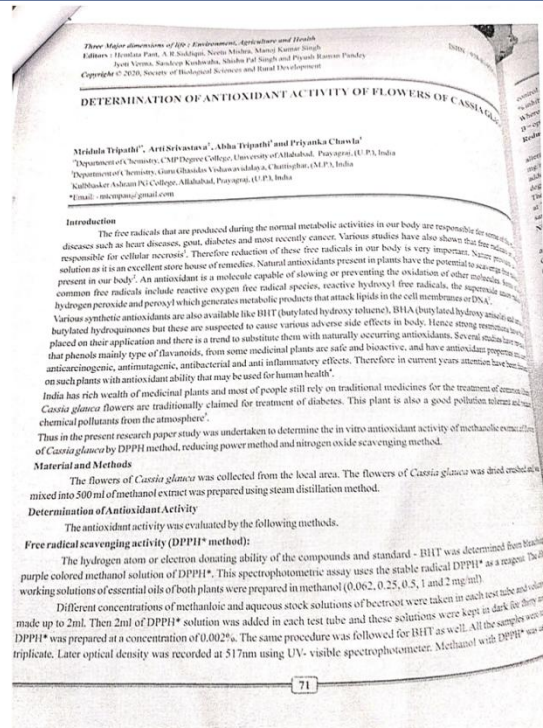


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



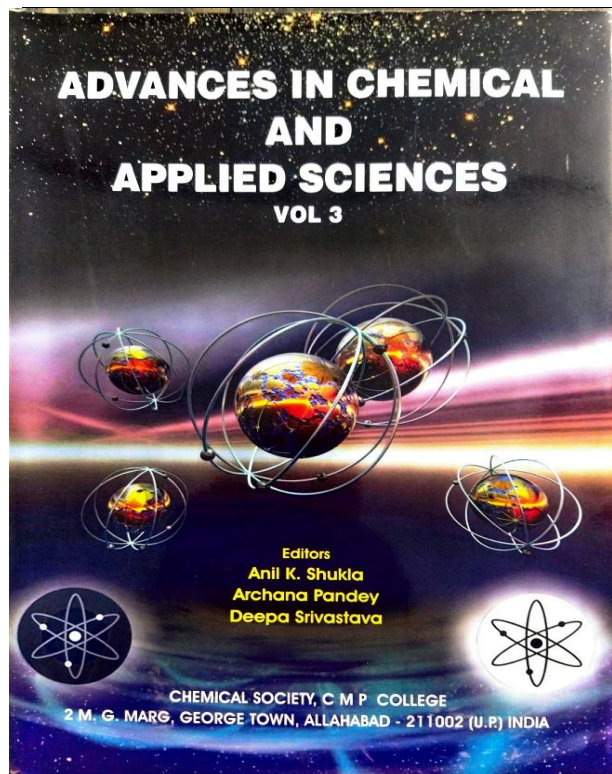


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## ADVANCES IN CHEMICAL AND APPLIED SCIENCES

Vol 3

Editors

Anil K. Shukla  
Archana Pandey  
Deepa Srivastava

CHEMICAL SOCIETY, C M P COLLEGE

(Regd. No. 3446/AL-32535)

2 M. G. MARG, GEORGE TOWN, PRAYAGRAJ - 211002  
(U.P.) INDIA



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Advances in Chemical and Applied Sciences - Vol 3

ISBN : 978-93-88018-19-7

Editors : Dr. Anil K. Shukla  
Dr. Archana Pandey  
Dr. Deepa Srivastava

Associate Editors : Dr. Sunanda Das  
Dr. Roli Srivastava  
Dr. Babita Agrawal  
Dr. Santosh K. Srivastava  
Dr. Arti Gupta  
Dr. Mridula Tripathi  
Dr. Praveen Tripathi  
Dr. Deepanjali Pandey  
Dr. Pramod Kumar  
Miss. Himani Chaurasia

First Edition : 2020  
Price : 600/-

© : Editors

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, is entirely that of the Author. The Publisher / Editors / Editorial Board bears no responsibility for them whatsoever.

Published & Printed by :

Firstprint Publications  
Tagore Town, Prayagaraj-211002  
Contact : +91-9792737737  
E-mail : [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)



Reg. No. 3446/AL-32535

Estd. 2012

## CHEMICAL SOCIETY C.M.P. COLLEGE

Dr. A.R. Saksena	Patron
Dr. Archana Pandey	President
Dr. A.K. Shukla	Vice President
Dr. Sunanda Das	Secretary
Dr. Roli Srivastava	Joint Secretary
Dr. Babita Agrawal	Publication Secretary
Dr. S.K. Srivastava	Treasurer
Dr. Arti Gupta	Convener (Editorial Committee)
Dr. Mridula Tripathi	Convener (Seminar Committee)
Dr. Om Prakash	Convener (Courses Committee)

Official : • Smt. Anju Verma (Administration) • Sri Shashank Srivastava (Accounts)

REGD. OFFICE : DEPARTMENT OF CHEMISTRY  
2, M.G. Road, George Town, Allahabad-211002 (India)

### Objectives of Chemical Society CMP College, Allahabad

This Chemical Society is created with an objective in developing academic environment by organizing National / International lectures, seminars, symposium, workshops etc. in the frontier areas of National priorities. It also aims at chemistry outreach in the form of books, journals and other educational activities that showcase the role of chemistry as a central science. Later on society will also endeavor to make international collaboration and research co-operations and will award meritorious students/ outstanding researchers nominated by statutory members of the Society.

Published By

IRINT

Address : 1642/59 Tagore Town, Allahabad - 211002

Mob.: 9792737737

[firstprintpublication@gmail.com](mailto:firstprintpublication@gmail.com)



9 789388 018197

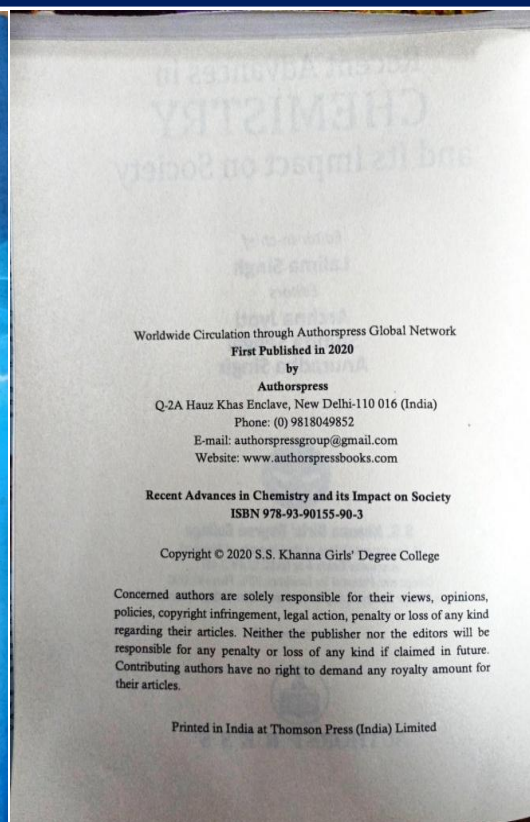
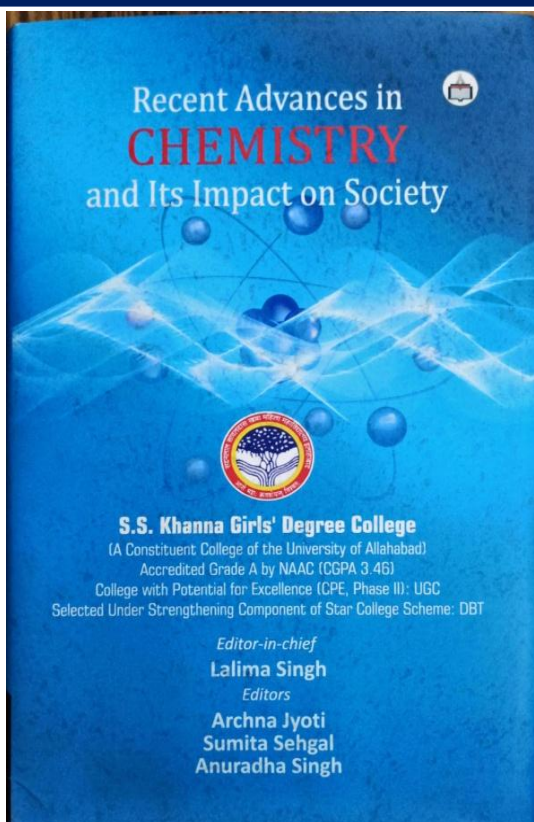


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



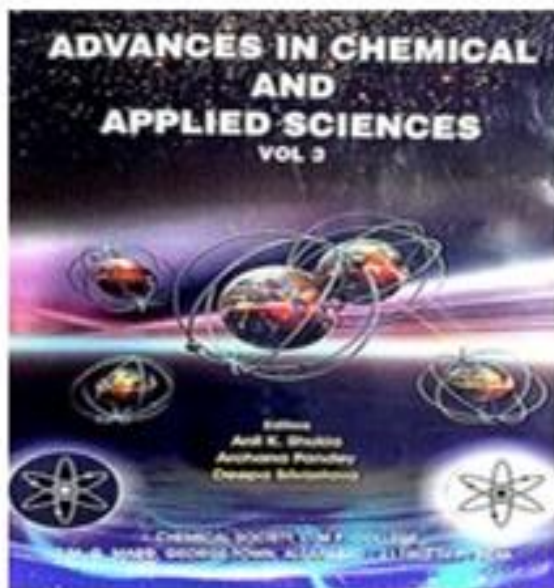


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Advances in Chemical and Applied Sciences - Vol 3  
Editors : Anil K. Shukla, Archana Pandey  
ISBN : 978-93-88018-19-7  
Edition : 2020

## Advances in Chemical and Applied Sciences - Vol 3

ISBN : 978-93-88018-19-7

Editors :  
Dr. Anil K. Shukla  
Dr. Archana Pandey  
Dr. Deepa Srivastava

Associate Editors :  
Dr. Sumona Das  
Dr. Roli Srivastava  
Dr. Ishita Agrawal  
Dr. Suresh K. Srivastava  
Dr. Anil Gupta  
Dr. Arindam Tripathi  
Dr. Praveen Tripathi  
Dr. Deepanjali Pandey  
Dr. Prasad Kumar  
Miss. Himani Chatterjee

First Edition : 2020  
Price : 600/-

© : Editors

The responsibility for both content and accuracy is assumed by the author(s). The Publisher / Editor / Editorial Board bears no responsibility for these statements.

Published & Printed by :

Firstprint Publications  
Tugue, Town, Prayagraj-211002  
Contact : +91-9792237737  
E-mail : [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)

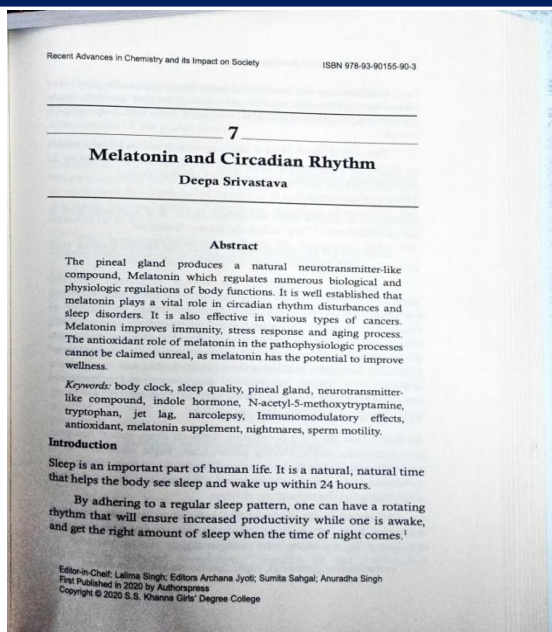


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



20	Hazardous Effects of Heavy Metal on Environment	Rahul Kanaoujiya and Shekhar Srivastava	159-165
21	Thermal Pollution	Praveen Tripathi	166-168
22	Prospective of microalgae as renewable source of energy	Neha Mishra and Neetu Mishra	169-174
23	Chemical Toxicology and its Influence on Environment	Arti Srivastava, Pratibha Mandal, Midula Tripathi and Rajesh Kumar	175-188
24	Effects of air pollutants on human health	Arti Gupta	189-196
25	Environmental change and obesity	Richa Srivastava, Neeru Bala and Anisha Verma	197-201
26	Biogeochemical cycles in nature	Achala Srivastava and Saumya Tewari	202-208
27	Eco-friendly Alternatives for the Minimizing of Toxic Metals from Waste Water	Ashok Kumar Ranjan and Sunil Kumar Yadav	209-213
28	Present Scenario of Environmental Challenges and Issues in The Food Processing Industry	Parimita	214-230
29	Carbon trade on global warming	Roli Srivastava	231-233
30	Hybrid nanomaterials for environmental applications	Dharmendra Kumar Sahu and Dharmveer Singh	234-243
31	Sustainable waste management in India	Deepa Srivastava	244-254
32	Population growth and environmental quality	Jaya Srivastava	255-258
33	Natural Disaster – A Great environmental concern	Anupma Singh	259-264
34	Impact of Microplastics on Environment and its Biodegradation	Samlesh Kumari	265-275
35	Biological Aspects of Aloe Vera	Ashwani Sharma and Anil Kumar Shukla	276-278
36	Global Warming : Causes and Effects	Mohd. Zaheeruddin Beg, Akanksha Kashyap and Anupma Singh	279-283
37	Plastic Pollution and its prevention	Shradha Tiwari and Shailja Singh	284-287
38	पू-गर्भ जल "जीवन दायनी प्रक्रिया" का आधार है	अमिता सिंह एवं डॉ. शंकर सुबन सिंह	288-291

20	Hazardous Effects of Heavy Metal on Environment	Rahul Kanaoujiya and Shekhar Srivastava	159-165
21	Thermal Pollution	Praveen Tripathi	166-168
22	Prospective of microalgae as renewable source of energy	Neha Mishra and Neetu Mishra	169-174
23	Chemical Toxicology and its Influence on Environment	Arti Srivastava, Pratibha Mandal, Midula Tripathi and Rajesh Kumar	175-188
24	Effects of air pollutants on human health	Arti Gupta	189-196
25	Environmental change and obesity	Richa Srivastava, Neeru Bala and Anisha Verma	197-201
26	Biogeochemical cycles in nature	Achala Srivastava and Saumya Tewari	202-208
27	Eco-friendly Alternatives for the Minimizing of Toxic Metals from Waste Water	Ashok Kumar Ranjan and Sunil Kumar Yadav	209-213
28	Present Scenario of Environmental Challenges and Issues in The Food Processing Industry	Parimita	214-230
29	Carbon trade on global warming	Roli Srivastava	231-233
30	Hybrid nanomaterials for environmental applications	Dharmendra Kumar Sahu and Dharmveer Singh	234-243
31	Sustainable waste management in India	Deepa Srivastava	244-254
32	Population growth and environmental quality	Jaya Srivastava	255-258
33	Natural Disaster – A Great environmental concern	Anupma Singh	259-264
34	Impact of Microplastics on Environment and its Biodegradation	Samlesh Kumari	265-275
35	Biological Aspects of Aloe Vera	Ashwani Sharma and Anil Kumar Shukla	276-278
36	Global Warming : Causes and Effects	Mohd. Zaheeruddin Beg, Akanksha Kashyap and Anupma Singh	279-283
37	Plastic Pollution and its prevention	Shradha Tiwari and Shailja Singh	284-287
38	पू-गर्भ जल "जीवन दायनी प्रक्रिया" का आधार है	अमिता सिंह एवं डॉ. शंकर सुबन सिंह	288-291



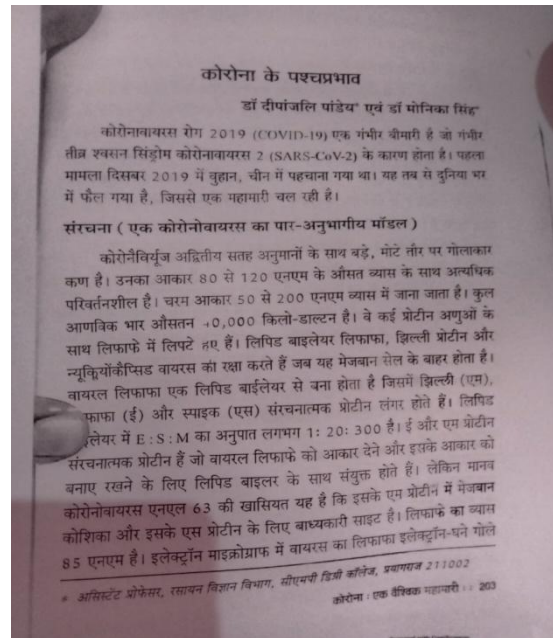
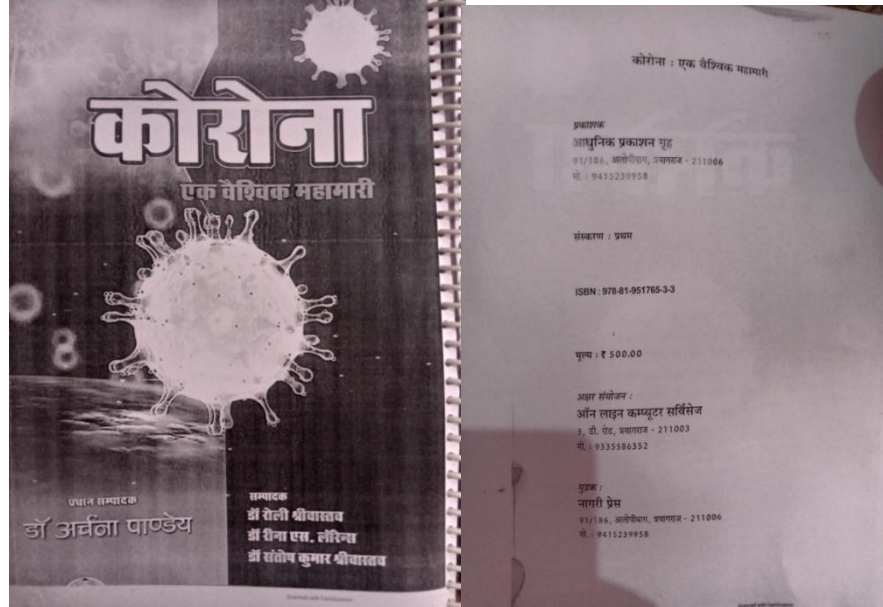


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



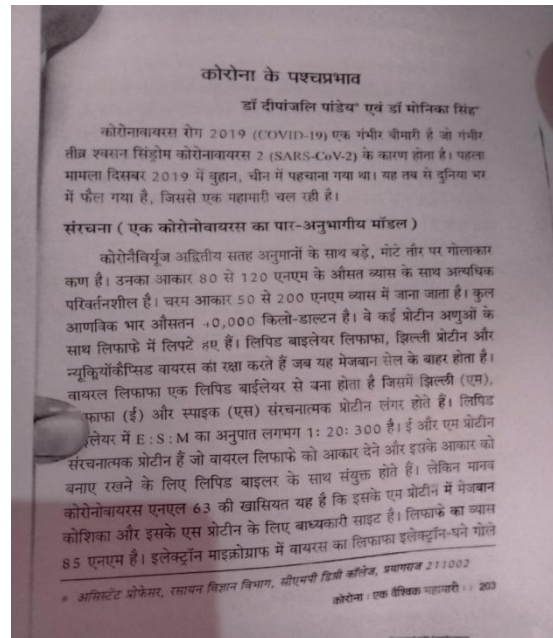
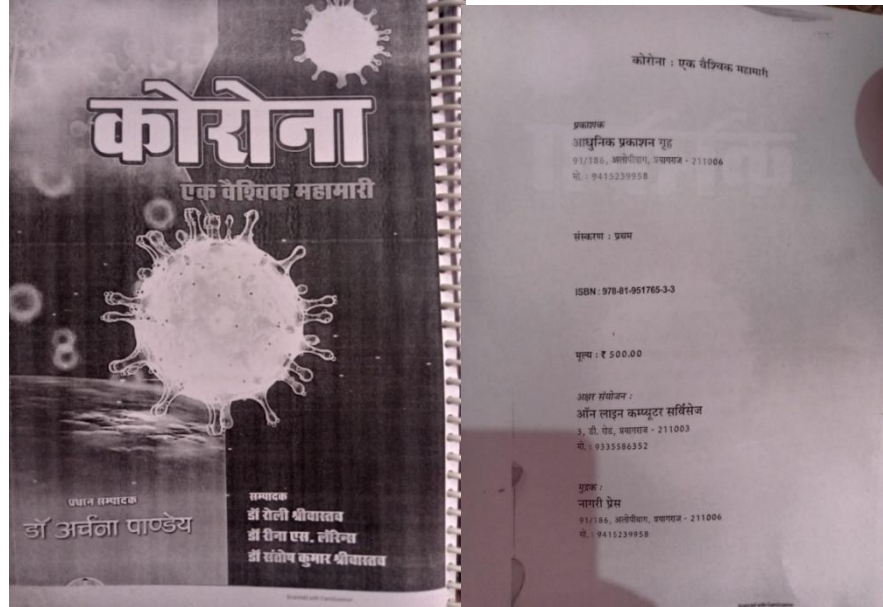


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



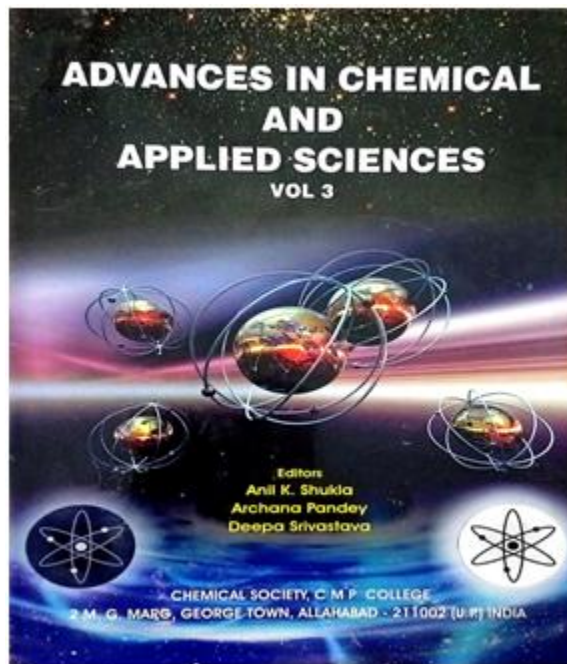


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Advances in Chemical and Applied Sciences - Vol 3

ISBN : 978-93-88018-19-7

Editors : Dr. Anil K. Shukla  
Dr. Archana Pandey  
Dr. Deepa Srivastava

Associate Editors : Dr. Sunanda Das  
Dr. Roli Srivastava  
Dr. Babita Agrawal  
Dr. Santosh K. Srivastava  
Dr. Arti Gupta  
Dr. Mridula Tripathi  
Dr. Praveen Tripathi  
Dr. Deepanjali Pandey  
Dr. Pramod Kumar  
Miss. Himani Chaurasia

First Edition : 2020  
Price : 600/-

© : Editors

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, in this book is entirely that of the Author. The Publisher / Editors / Editorial Board bears no responsibility for them whatsoever.

Published & Printed by :

Firstprint Publications  
Tagore Town, Prayagraj-211002  
Contact : +91-9792737737  
E-mail : [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)

19. A Case Study of Modification in Pharmaceutical Drugs through Co-crystallization for Improvement of Drugs Delivery <i>Ranjeet Kumar and Pramod Kumar</i>	144
20. Biotransformers: As Model Organisms to Study the Effects of Environmental Variables. <i>Sarita Agrawal</i>	154
21. MOFs Based on Azide (N <sub>3</sub> ) and Nicotinamide Ligands with Cd (II) <sub>4</sub> Cd <sub>2</sub> (μ <sub>3</sub> -N <sub>3</sub> ) <sub>2</sub> (Nicotinamide) <sub>2</sub> H <sub>2</sub> O Synthesis & Characterization. <i>Deepanjali Pandey</i>	159
22. Technology and Human Mind <i>Pramila Gupta</i>	170
23. Advances In Applications of Ionic Liquid <i>Arijta Srivastava and Abhishek Srivastava</i>	176
24. Effective Address to Anti-Microbial Resistance in the Environment <i>Richa Mishra</i>	187
25. Mechanism, and Spectroscopy Analysis of the Reversible Binding of Nitric Oxide to Aqueous Iron(II). An Undergraduate Text Book Reaction Revisited. <i>Akram Ali</i>	200
26. Different Characterization Techniques of Nanoparticles <i>Neha Sita</i>	206
27. Enzymes: Their Activity and Role in Metabolism <i>Neeja Kapoor</i>	218
28. Phytochemistry related to Medicinal Plants <i>Kriti Raj Singh</i>	223
29. Construction and Standardization of Biology Achievement Test for Higher Secondary Students <i>Dilip Kumar Singh</i>	231
30. Delicious Mushroom Recipes <i>Hemlata Pant and Harshita Pant</i>	238
31. Shock Waves and its Applications <i>Harish Chandra Yadav</i>	257
32. Indian Patent Right <i>Isha Pandey</i>	262
33. Scientific Validation of Antidiabetic Property of Selected Medicinal Plants <i>Ayushi Tiwari, Manjulika Yadav and Geeta Watal</i>	270
34. Consequences of Air pollution on Central Nervous System <i>Sippy Singh and Durgesh Singh</i>	275
35. Green Approaches for Synthesis of Quinazolinone <i>Vishal Srivastava</i>	280
36. Liquid Crystals: Significant Material for Future Advancement <i>Abhinav Lal</i>	302
37. Ecology of Cyanobacteria <i>Amita Pandey</i>	

Advances in Chemical and Applied Sciences - Vol 3  
Editors : Anil K. Shukla, Archana Pandey, Deepa Srivastava  
ISBN : 978-93-88018-19-7  
First Edition : 2020

## A Case Study of Modification in Pharmaceutical Drugs through Co-crystallization for Improvement of Drugs Delivery Ranjeet Kumar\* and Pramod Kumar

### Introduction

A drug with better aqueous solubility and better stability at physiological pH will show good absorption through bio membrane and lead to better bioavailability [1]. Due to the low solubility, the drug is absorbed slowly and the levels of the drug in the blood are lower than the required (level) and required higher dose of drugs [2]. Most of drugs candidate have poor solubility and narrow limiting factor to the in vivo bioavailability after oral administration [3]. Many drugs are susceptible to chemical decomposition through the interaction with enzymes due to poor stability and such degradation leads to less potency [4]. Therefore researchers should develop a strategy such as co-crystallization, dimerization and salt formation to improve the solubility, stability and bioavailability of poor soluble and poor stable drugs for successful drug delivery [5-7]. The dimerization of drugs will be more effective for drug delivery compared to core molecules of drugs because dimer based drug molecules increased the conformational degree of freedom due to this it effectively bind the active site of protein [8]. In pharmaceutical industry, it is well known that drug development is a long, expensive and arduous process, which usually associated with high risk and low success rate. Less than 1% of active pharmaceutical ingredients is successfully developed and appears in the market place [9]. Main challenge for successful development of drugs is the deficiencies in physicochemical properties of APIs, such as solubility, permeability, bioavailability, stability and mechanical properties. Given that the properties of materials are dependent on their solid-state structure, it is clear that modification of solid forms can improve the problematic properties of drug molecules [10-12]. Co-crystallization is a crystal engineering approach to generate new multi-component crystalline solid materials using complementary molecules based on the principles of supramolecular chemistry and molecular

Department of Chemistry, C.M.P Degree College A constituent PG college of University of Allahabad Prayagraj, U.P. India  
Email : [ranjeet@gmail.com](mailto:ranjeet@gmail.com)

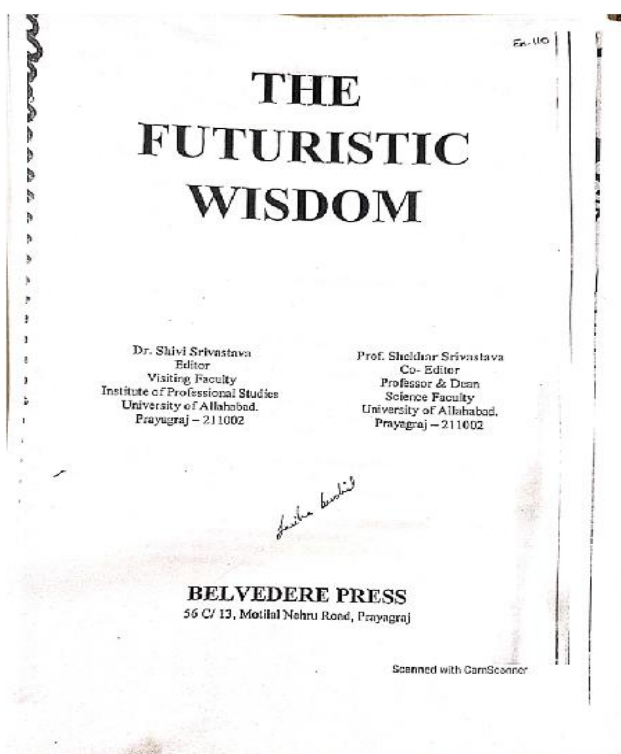


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



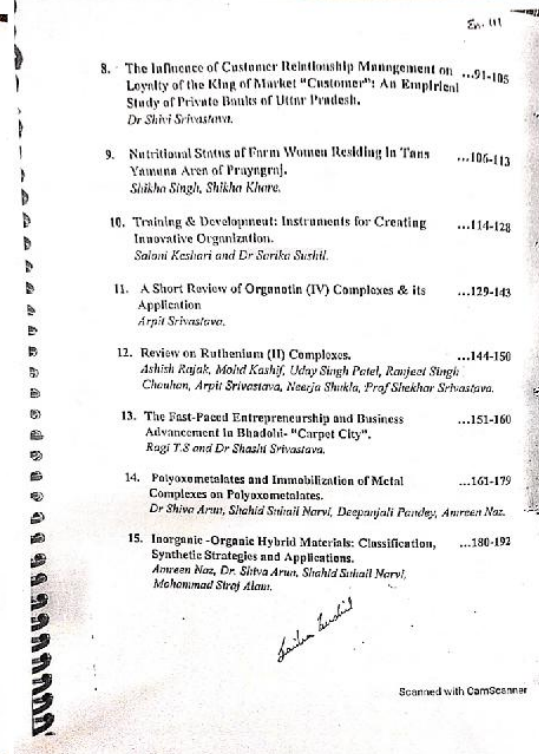
## THE FUTURISTIC WISDOM

Dr. Shivi Srivastava  
Editor  
Visiting Faculty  
Institute of Professional Studies  
University of Allahabad,  
Prayagraj - 211002

Prof. Sheldon Srivastava  
Co-Editor  
Professor & Dean  
Science Faculty  
University of Allahabad,  
Prayagraj - 211002

**BELVEDERE PRESS**  
56 C/ 13, Motilal Nehru Road, Prayagraj

Scanned with CamScanner



8. The Influence of Customer Relationship Management on Loyalty of the King of Market "Customer": An Empirical Study of Private Banks of Uttar Pradesh. ...91-105  
*Dr. Shivi Srivastava.*
9. Nutritional Status of Farm Women Residing in Tans Yamuna Area of Prayagraj. ...106-113  
*Shikha Singh, Shikha Khora.*
10. Training & Development: Instruments for Creating Innovative Organization. ...114-128  
*Sajani Keshari and Dr. Serika Sushil.*
11. A Short Review of Organotin (IV) Complexes & its Application ...129-143  
*Arpit Srivastava.*
12. Review on Ruthenium (II) Complexes. ...144-150  
*Ashish Rajak, Mohd Kashif, Uday Singh Patel, Ranjeet Singh Chenthan, Arpit Srivastava, Naeja Shukla, Prof. Shekhar Srivastava.*
13. The Fast-Paced Entrepreneurship and Business Advancement in Bhadohi: "Carpet City". ...151-160  
*Ragi T.S and Dr. Shaah Srivastava.*
14. Polyoxometalates and Immobilization of Metal Complexes on Polyoxometalates. ...161-179  
*Dr. Shiva Arun, Shahid Sultail Nervi, Deepanjali Pandey, Anreen Naz.*
15. Inorganic - Organic Hybrid Materials: Classification, Synthetic Strategies and Applications. ...180-192  
*Anreen Naz, Dr. Shiva Arun, Shahid Sultail Nervi, Mehammad Straj Alan.*

Scanned with CamScanner



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Training and Development: Instruments for Creating Innovative Organisation

Suhail Keshari<sup>1</sup>, Dr. Sarika Sudhita<sup>2</sup>  
Research Scholar, CMP Degree College, University of Allahabad, India  
Assistant Professor, CMP College, University of Allahabad.

### Abstract

*In this Globalization era, to compete and sustain in the long run a business establishment must foster the culture of creativity and innovation by tapping the competency of human capital. Human Capital is the most valued asset of any organization under this globally changing environment. Training and Development are the tools used in exploring the skills, competencies, and knowledge of human capital. It converts a normal organization into a creative and innovative organization through trained and skilled employees, causing value addition in productivity and profitability. Creativity and Innovation are the essential growth factors that can be stimulated through Training and Development initiatives. In these initiatives, employees develop their creativity and problem-solving skills, becoming better at adapting to change and improving their flexibility.*

*Normally, the Training process is kept short and simple in the majority of organizations just to provide job-related knowledge, which does not match the perception of employees and thus leads to low productive employees. This paper is an attempt to highlight the need and importance of Training and Development in the present scenario and how it stimulates in making organizations creative and innovative.*

**Key Words:** Training, Development, Creativity, Innovation

### Introduction

Companies today are forced to function in a world full of change and complexity. It has become highly essential to have the right employees in order to survive in this competitive era. So, in this globalization era, to compete and sustain in the long run, a business establishment must foster the culture of creativity and innovation by tapping the competency of

human capital. All corporate strengths are dependent on its human resource as they are wind for the success of an organization. Training and Development is one of the main functions of the human resource department. It acts as an instrument for adding qualitative and quantitative results to an organization. It increases the performance of human resource and this improved performance leads to creative and innovative engagement by employees which brings out the best results for the organizational achievement of objectives. With an increasing rate of change in the global economy, especially after the onset of the 2008-2009 economic crisis, innovation management emerges as a powerful way to facilitate firm's adaptation to new conditions. Most firms competing in the global economy are paying increasing attention to innovation as the key driver of competitiveness.

Traditional Approach of Training and Development discloses that most of the organizations generally do not want to invest in Training and Development techniques. Traditional thinkers were of the view that managers are born, not made. According to them, Training increases unnecessary expenses although it is a very costly affair and not worth it. But modern thinkers of the globalized world realized the importance of corporate training in creating a smarter workforce for innovative actions of an organization. Training is a process of altering workforce behaviour and attitudes to increase the probability of achieving goals. The importance of Training and Development should be recognized by every organization and never be considered a waste of time and money. It demands the need for supervision by the top-level managers and thus generates autonomy and authority relationship between different levels of people working in an organization.

As per 2019's Global Human Capital Trends, learning was cited top among all other recent challenges<sup>1</sup>. People now prioritize "opportunity to learn" among top reasons before joining any organization. According to a recent study, only 10% of fresh graduates are skillful to perform effectively in their jobs, and the rest of the 90% of the graduates are still lacking the skills to be hired by an organisation<sup>2</sup>. So before placing them in the workplace, training is necessary for the growth of both individuals and organizations. In the present scenario, employees in the majority of organizations either

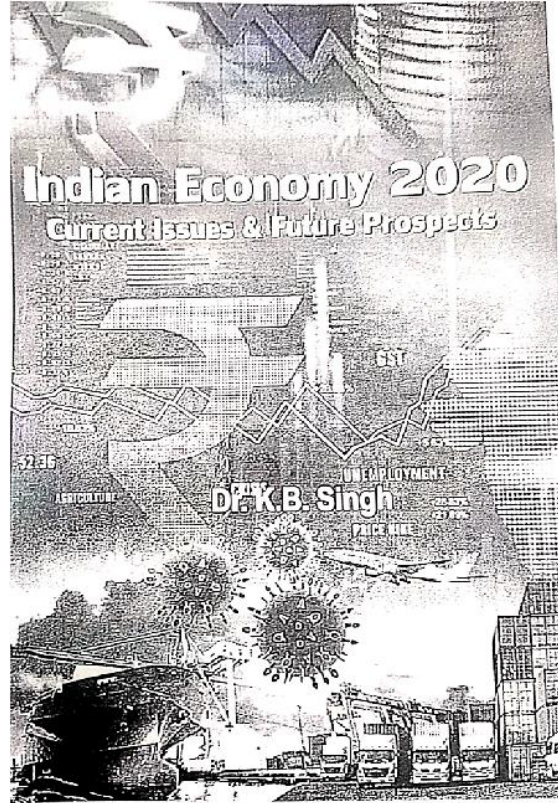


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)





# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



6. Coronavirus (COVID 19) Pandemic and Its Global Economic Effects	84
<i>Prof. (Dr.) Sanjay Kumar, Dr. Sunil Kumar, Ritika Raghuvanshi</i>	
7. Role of Micro-Finance During and After COVID-19 in Indian Economy	95
<i>Dr. Karuna Shanker Kanaujia</i>	
8. A Study of Make in India Initiative and Outcome	114
<i>Rashmi Chahal, Dr. Narender Singh</i>	
9. COVID-19 Outbreak and Its Impact on India	124
<i>Dr. Joy Das, Animesh Bhattacharjee, Madhu Kumari</i>	
10. 2020 – Tracking the Global Outbreak	139
<i>Prof. (Dr.) Sanjay Kumar, Dr. Sunil Kumar, Shreya Patel</i>	
11. Role of Digital Technology During the COVID-19 Pandemic	155
<i>Dr. Pankaj Gupta</i>	
12. Digital Marketing Ecosystem: Driving Force for Digital Based Indian Economy	163
<i>Dr. Sushil Kumar Pareek</i>	
13. Managing Personal Finance During COVID-19 Pandemic: An Imperative for Building Financial Resilience	178
<i>Dr. Awadhesh Kr. Tiwari, Dr. Ajay Pratap Yadav</i>	
14. Urban Forecast its Major Challenges in the Growth of Indian Economy	190
<i>Dr. Hemalatha Ramakrishnan</i>	

## CHAPTER

# 13

## Managing Personal Finance During COVID-19 Pandemic: An Imperative for Building Financial Resilience

Dr. Awadhesh Kr. Tiwari<sup>1</sup>, Dr. Ajay Pratap Yadav<sup>2</sup>

### Abstract

The spread of COVID-19 has changed the global landscape, affecting our financial, professional, and social environments. The sudden disruptions caused by this public health crisis are presenting economic challenges with growing repercussions. While some factors affecting financial well-being are beyond individual control, financial knowledge can help people better manage their finances through times of hardship and times of prosperity.

The present paper, being descriptive in nature, focuses on understanding the concept and aspects of personal finance and offers issues, challenges and suggestions to manage personal

<sup>1</sup>Assistant Professor, Department of Commerce, C.M.P. Degree College (Allahabad University), Allahabad.

<sup>2</sup>Assistant Professor, Department of Commerce & Financial Studies, Central University of Jharkhand, Ranchi.

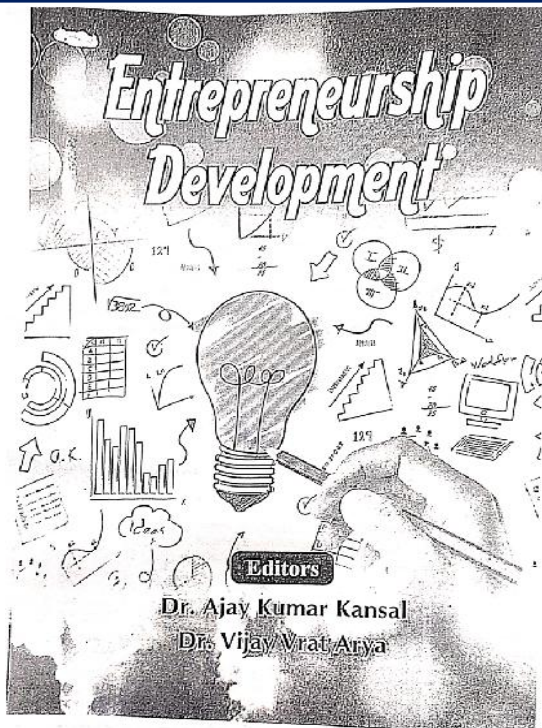


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## CONTENT

	Chapter	Page No.
1.	Entrepreneurship and Business Incubation <i>Dr. Kapil Harit and Dr. Sanjeev Kumar Singh</i>	1-13
2.	Financing of Entrepreneurs <i>Shri Ram Prasad Raheja</i>	14-23
3.	A Framework of Entrepreneurship Development <i>Dr. Pashpender Kumar Sanyal</i>	24-34
4.	Micro, Small and Medium Enterprises (MSMEs): An Assessment of Financial Performance and Economic Linkages <i>Shri Kunwarpal Singh Arya and Shri Anil Kumar</i>	35-46
5.	The Role of Higher Educational Institutions in Fostering Entrepreneurship Development <i>Dr. Veda C.V</i>	47-55
6.	Entrepreneurship Development Through Social Media and E-Commerce <i>Shri Aritra Brahma and Ms. Rajasi Dutta</i>	56-69
7.	An Analysis on the Influence of Entrepreneurship Education in Indian Schools for the Growth of Entrepreneurial Skills: Mission Atma-Nirbhar Bharat <i>Mrs. Mukta Goyal and Dr. Abhishek Srivastava</i>	70-83
8.	Dynamics of Cyber Attack and Online Scam & Fraud during COVID-19 Pandemic <i>Dr. Awadhesh Kr. Tiwari and Dr. Ajay Pratap Yadav</i>	84-93
9.	Making UP \$1-Trillion Economy: with special reference to ODOP plan <i>Dr. Neetu Mishra and Dr. Praetl Pant</i>	94-110
10.	Entrepreneurship in Pandemic Times in India: A way towards Atmanirbhar Bharat <i>Shri Munindra Kumar Singh</i>	111-124





# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Chapter - 8

### DYNAMICS OF CYBER ATTACK AND ONLINE SCAM & FRAUD DURING COVID- 19 PANDEMIC

Dr. Awadhesh Kr. Tiwari  
Assistant Professor, Department of Commerce,  
C.M.P.Degree College, Allahabad University, Prayagraj,  
E-mail: ktawadhesh@gmail.com

Dr. Ajay Pratap Yadav  
Assistant Professor, Department of Commerce & Financial Studies,  
Central University of Jharkhand, Ranchi.  
E-mail: ejaypy@gmail.com

#### ABSTRACT

Cyber threats are constantly evolving in order to take advantage of online behaviour and trends. The COVID-19 outbreak is no exception. Cyber criminals are attacking the computer networks and systems of individuals, businesses and even global organizations at a time when cyber defenses might be lowered due to the shift of focus to the health crisis. MSMEs and Startups are more vulnerable toward such attack. The COVID-19 pandemic has presented a golden opportunity for hackers and online scammers. Cyber security experts saw a 63 percent increase in cyber-attacks related to the pandemic.

The present chapter, being descriptive in nature, emphasizes on understanding of Cyber Attack and online Scam & fraud and dynamics emerged during COVID 19 Pandemic and offers suggestions and resources to manage cyber emergency caused by COVID-19 pandemic.

**Keywords:** Covid-19 pandemic, On-line scam, Cyber Attack, Cyber-crime

#### INTRODUCTION

The COVID 19 virus has affected most countries in the world, India being one of them with over 19000 people infected till date. Taking into consideration the risk of COVID19, the government announced an initial lockdown of 21 days across India while



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## PARADIGM SHIFT OF BUSINESS IN INDIA

Opportunities, Challenges and  
Strategies for Sustainable Growth

Editors

Dr. Shailesh K. Dwivedi  
Dr. Vikas Kumar



AUTHORS P R E S S

8 • Paradigm Shift of Business in India	
9. A Study on Impact & Challenges of GST on Indian Economy Ayan Bandyopadhyay and Debasish Ray	123
10. New Challenges after Implementation of GST Nisha Joseph and Gopika K. Udayan	135
11. A Study of the Design of Indian Goods and Services Tax Bireswar Pandey	145
12. Implications of GST on Selected Real Estate Projects: Perception of Stakeholders Anurag B. Singh	157
13. A Study on Impact of Covid-19 Lockdown on Goods and Services Tax (GST) Collection: Present and Future Jaya Shahl	180
14. An Analysis of the Issues and Challenges of Goods and Service Tax (GST) in India Yogita Beri	193
15. Digital India and Economic Development on the Path to the New India Bhakti Parashar	205
16. Digital India: Opportunities and Challenges Anumeha Srivastava	223
17. Digital India – On the Path to a New India: Impact, Opportunities, and Challenges Sameer Kr. Dwivedi	231
18. Impact of Digitalisation on Indian Fashion Retail Industry Ms Himanshi Agarwal	251
19. Digital India: On a Path to New India Deepa Pillai	272
20. Digitalisation of India – A New Journey to Success Shubham Kumar Arya	289



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Chapter-7	Page 59
<b>Indian Financial System- Evolution, Growth &amp; Impact of Coronavirus</b> <i>Dr. Vishal Saxena &amp; Kshama Jain</i>	
Chapter-8	Page 70
<b>Financial Inclusion in India- Important Milestones</b> <i>Piyush Gupta &amp; Anya Yadav</i>	
Chapter-9	Page 79
<b>Challenges Faced by Financial Services Industry-2020</b> <i>Ankita Goyal &amp; Dr. Upendra Singh</i>	
Chapter-10	Page 89
<b>Impact of COVID-19 on Indian Industry: Challenges and Opportunities</b> <i>Rajkumar Singh</i>	
Chapter-11	Page 97
<b>Make In India: Success or Failure</b> <i>Shiksha swami</i>	
Chapter-12	Page 106
<b>Foundations and Introduction of Islamic Economics: Role and Trends</b> <i>Dr. Bilal Ahmad Khan</i>	
Chapter-13	Page 122
<b>Significance of E-commerce in Economic Development of India</b> <i>Dr. Amit Kansal</i>	



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Chapter-10

### Impact of COVID-19 on Indian Industry: Challenges and Opportunities

Rajkumar Singh  
Assistant Professor, Department of Commerce,  
CMP Degree College, University of Allahabad, Uttar Pradesh

#### Abstract

The outbreak of the COVID-19 pandemic is not only responsible for loss of human lives but also responsible for distressed Indian economies. The outbreak has presented fresh challenges towards MGNREGA, Restaurant service, food and agriculture, MSME, Tourism and online business. Understanding the challenges of COVID-19 pandemic on the Indian economy is vital to formulate the policy and measures to contain this economic impact. This paper revealed the potential challenges of the Covid-19 pandemic on various sectors like MGNREGA, Restaurant service, food and agriculture, MSME, Tourism and online business and put forward a set of policy recommendations for specific sectors.

**Keywords:** Corona virus, Economy, Challenges and Opportunities, and Sectors

#### Introduction

The first case of the Covid-19 was reported in the December, 2019 in the Wuhan city of China, thus the many other countries have shut down their economic activities due to the spread of COVID-19 pandemic. The first case of COVID-19 in India reported in January, 2020 therefore Government of India has taken various steps to control the spread of Covid-19. The Government of India has lockdown the country for few months which affected the various sectors like MGNREGA, Restaurant service, food and agriculture, MSME, Tourism and online business and the Indian economy has been already experiencing significant slowdown over the past few quarters. However, the Covid-19 pandemic has made the recovery extremely difficult in the near future. Manufacturing industries play significant role in global economy and also play important role in the development of country by contribution in the gross domestic product (Chandrasekhar et al., 2020). Government of India is taking all necessary steps to ensure that we are prepared well to face the challenges posed by the growing COVID-19 pandemic. The Indian economy has been hit hard by the ongoing COVID-19 pandemic. As on 31<sup>st</sup> July 2020, about one million people in India have been affected by COVID-19 with some variations, there has been an unprecedented rise in number of Corona patients across the world. The entire world is passing through great uncertainty. In this pandemic Government of India is facing two



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Quality Concern In Higher Education



## Indicators of Quality in Higher Education

*Dr. Abha Singh*

Associate Professor  
Department of Education  
CMP College, Prayagraj

Higher Education Institutions (HEI) are regarded as one of the crucial factors in developing excellent manpower in a country. HEIs in the India are either public or private colleges and universities which are licensed, controlled and supervised by the University Grant Commission. It is the government agency responsible for the formulation and implementation of plans, policies and program for the development and efficient operation of higher education system in the India. Quality of education is defined by UNICEF (2000) as outcomes that encompass knowledge, skills and attitudes, and are linked to national goals for education and positive participation in society. Quality in higher education is a multidimensional concept that looks at the quality of a whole institution. Educational quality can be measured by means of indicators which include educational input, process, outcome and context indicators. Education indicators provide information about the health of the educational system. Quality is the most cherished goal in human endeavor and especially in the field of education. Quality is at the core of education. It determines what students learn, how well they learn and what benefits they draw from their education. These issues have pushed the countries to have on their agenda the mission to ensure students' optimum learning outcomes that help them play a positive role in creating a civil society.

The role of higher Education in national development is well established as it is this level of education which provides top-level of man-

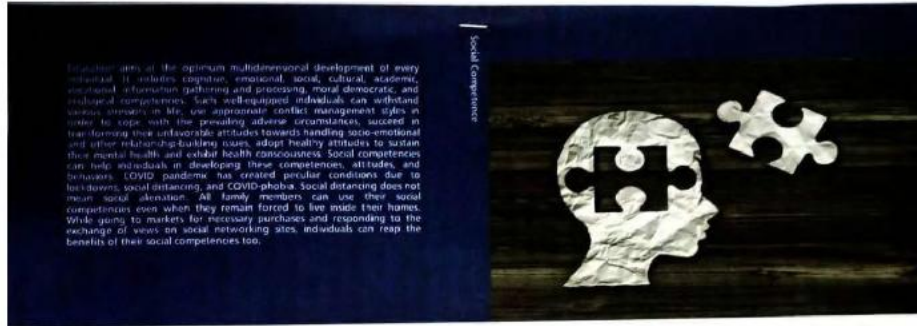


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Karuna Shankar Misra

## Social Competence and Its Correlates



Karuna Shankar Misra has been a professor of education at the University of Allahabad, Prayagraj and Banarus Hindu University, Varanasi. He officiated as Vice-Chancellor of the University of Allahabad. He has his master's degree in Zoology and Education from the Agra University. He was awarded the degree of Ph. D. by the University of Rajasthan.



978-620-2-67654-0

LAP LAMBERT  
Academic Publishing



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



110

12

## RELATIONSHIP OF SOCIAL COMPETENCE WITH EMOTIONAL INTELLIGENCE AND ACADEMIC PERFORMANCE OF UNDERGRADUATE STUDENTS

Dr. ABHA SINGH

Associate Professor  
Department of Education  
C M P College, Prayagraj

### ABSTRACT

*This study has been undertaken to explore relationship of social competence with emotional intelligence and academic performance among undergraduate students. The sample comprised of 100 undergraduate students (50 male and 50 female) studying in one degree college of Prayagraj city. 'Social Competence Scale' and 'Test of Emotional Intelligence-Student Form' constructed by K.S.Mishra were used to measure the social competence and emotional intelligence. Marks obtained by students in B. A. part I were used as measures of academic performance. Pearson's Product Moment correlation was used to analyze the data. It was found that a positive relationship exists between boys' emotional intelligence and optimistic orientation, a negative relationship exists between boys' emotional intelligence and social assertiveness; girls' social competence is positively related to emotional intelligence; girls' emotional intelligence is positively related to social problem solving, social assertiveness, information alertness, and sustainability; total social competence is positively related to academic performance; girls' academic performance is positively related to adoption proneness, controllability, social problem solving, autonomous social self, social assertiveness, interdependence, reflection, information alertness, and sustainability.*

### INTRODUCTION:

Undergraduate students undergo rapid emotional, physical, psychological, intellectual and social changes that are stressful and difficult to manage. The developmental changes affect their interactions with their teachers and peers. They often influence academic achievement and social competencies. Social competence is the ability to understand and handle social interactions effectively. It helps students to get along with others, be able to form and maintain close relationships, and respond in adaptive ways in social settings. It is the product of a wide range of cognitive abilities applied to social behaviours, social awareness, and affective behaviours. It can vary with age of a person, specific social situations and cultural expectations). Social competencies are crucial for maximum utilization of intellectual potential and academic success even when students experience difficulties in communication. Emotional intelligence helps students in better understanding of their intrapersonal and interpersonal efficacy, stress management and adaptability. Emotional intelligence is the capacity to be aware of one's and others' emotions, express and control one's emotions, and manage other's emotions. Academic performance in a subject or a course is a measure of how well students have performed on various assessments. It may also be influenced by social competencies of students.

Petrides, et al. (2004) looked at the relationship between trait emotional intelligence, academic performance and cognitive ability and concluded that emotional intelligence moderated the relationship between academic Performance and cognitive ability. Parker et al. (2004) concluded that emotional intelligence can predict academic success. They found that highly successful students scored higher than unsuccessful group on three subsets of emotional intelligence-interpersonal ability, stress management and adaptability. Devi & Rayula (2005) revealed significant difference in interpersonal skills component of boys and girls favouring

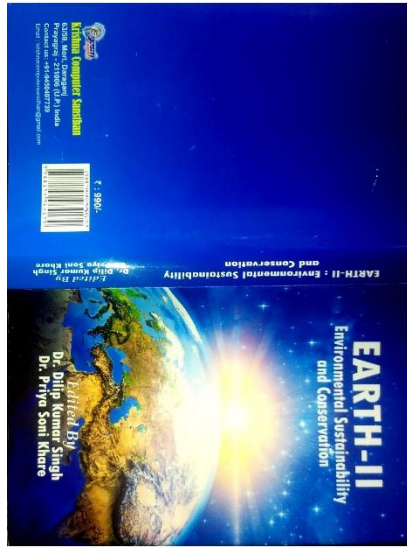


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## EARTH-II

[Environmental Sustainability and Conservation]

Edited By  
**Dr. Dilip Kumar Singh**  
Assistant Professor  
Department of Education  
CMP College, Prayagraj

**Dr. Priya Soni Khare**  
Assistant Professor  
Department of Education  
CMP College, Prayagraj



Publisher  
**Krishna Computer Sansthan**  
Prayagraj

ISBN : 978-81-949641-7-9

Publisher  
**Krishna Computer Sansthan**  
63/59, Mori, Daraganj, Prayagraj 211006 (U.P.)  
Contact : +91-9450407739  
Email : [krishnacompstersansthan@gmail.com](mailto:krishnacompstersansthan@gmail.com)

**EARTH-II**  
[Environmental Sustainability and Conservation]

Edited By  
**Dr. Dilip Kumar Singh**  
**Dr. Priya Soni Khare**

© : Editor

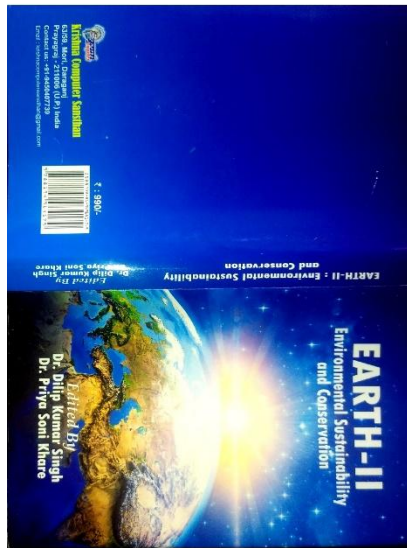
First Edition : 2020

Price : 990

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, in this book is entirely that of the Author. The Publishers & Printer bear no responsibility for them whatsoever.

Page Setting  
Brahmanand Mishra

Printed by :  
**Infinity Imaging System**  
New Delhi



## EARTH-II

[Environmental Sustainability and Conservation]

Edited By  
**Dr. Dilip Kumar Singh**  
Assistant Professor  
Department of Education  
CMP College, Prayagraj

**Dr. Priya Soni Khare**  
Assistant Professor  
Department of Education  
CMP College, Prayagraj



Publisher  
**Krishna Computer Sansthan**  
Prayagraj

ISBN : 978-81-949641-7-9

Publisher  
**Krishna Computer Sansthan**  
63/59, Mori, Daraganj, Prayagraj 211006 (U.P.)  
Contact : +91-9450407739  
Email : [krishnacompstersansthan@gmail.com](mailto:krishnacompstersansthan@gmail.com)

**EARTH-II**  
[Environmental Sustainability and Conservation]

Edited By  
**Dr. Dilip Kumar Singh**  
**Dr. Priya Soni Khare**

© : Editor

First Edition : 2020

Price : 990

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, in this book is entirely that of the Author. The Publishers & Printer bear no responsibility for them whatsoever.

Page Setting  
Brahmanand Mishra

Printed by :  
**Infinity Imaging System**  
New Delhi



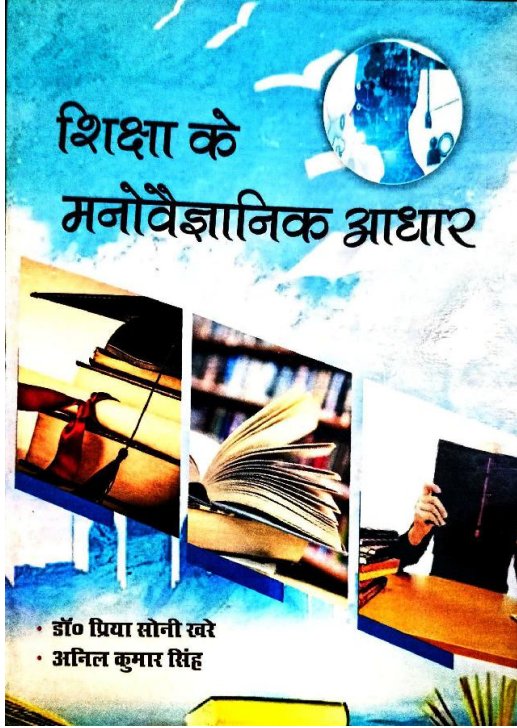


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## शिक्षा के मनोवैज्ञानिक आधार

डॉ. प्रिया सोनी खरे  
असिस्टेंट प्रोफेसर  
शिक्षा विभाग,  
सी.एम.पी. डिग्री कॉलेज इलाहाबाद

अनिल कुमार सिंह  
असिस्टेंट प्रोफेसर  
मनोविज्ञान विभाग  
एन. आर. ई. सी. कॉलेज खुर्जा



**Swaranjali Publication**  
swaranjalipublication@gmail.com,  
8700124880, 9810749840  
Vasundhara, Ghaziabad, 201012



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE (A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



स्वरोजलि पब्लिकेशन प्रा. लि. द्वारा प्रकाशित  
सेक्टर 10-बी, वरुणधरा,  
गाजियाबाद, उत्तरप्रदेश - 201012  
प्रकाशित 2021. © स्वरोजलि पब्लिकेशन

इस पुस्तक में प्रामाणिक और अत्यधिक सम्मानित स्रोतों से प्राप्त जानकारी शामिल है। पुनर्प्रकाशित सामग्री अनुमति के साथ उद्धृत किया गया है, और स्रोतों का संकेत दिया गया है। विश्वसनीय डेटा और जानकारी प्रकाशित करने के लिए उचित प्रयास किए गए हैं, लेकिन लेखकों और प्रकाशक सभी सामग्रीयों की वैधता के लिए जिम्मेदारी नहीं ले सकते।

प्रकाशक की लिखित अनुमति के बिना, न तो यह पुस्तक और न ही किसी भी हिस्से को किसी भी रूप में या किसी भी तरह से, इलेक्ट्रॉनिक या मैकेनिकल, फोटोकॉपी, माइक्रो फिल्मिंग और रिकॉर्डिंग, या किसी भी जानकारी भंडारण या पुनर्प्राप्ति प्रणाली में प्रेषित नहीं किया जा सकता है।

स्वरोजलि प्रकाशन की सहमति सामान्य वितरण, नकल के लिए, प्रचार के लिए, नए कामों के निर्माण के लिए, या पुनर्विक्रय के लिए नहीं है। इस तरह की प्रतिलिपि के लिए स्वरोजलि प्रकाशन से लिखित में विशिष्ट अनुमति प्राप्त की जानी चाहिए।

**शिक्षा के मनोवैज्ञानिक आधार**

ISBN: 978-93-5470-752-0

Price: 499/-

किल्ब और कवर डिजाइन  
स्वरोजलि डिजाइन सॉल्यूशन

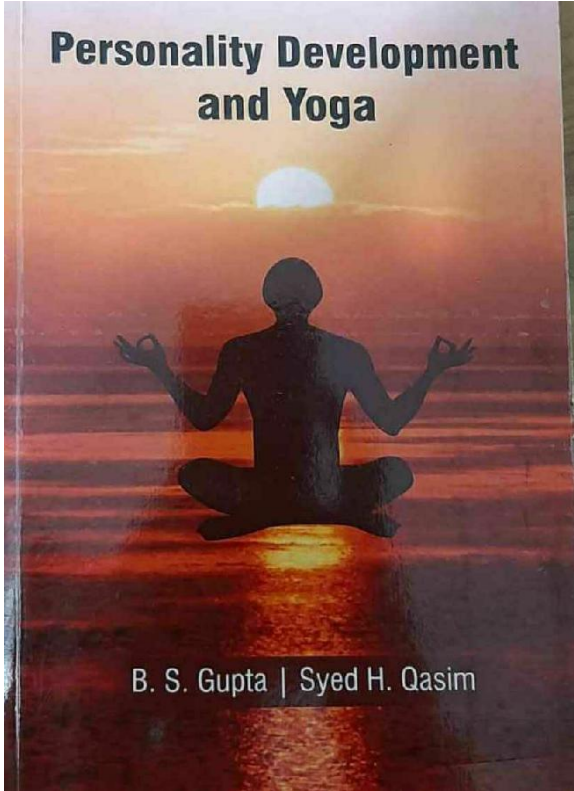
मुद्रण- स्वरोजलि ऑफसेट प्रिंटर्स



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE (A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Personality Development and Yoga

Edited By

**Dr. B. S. Gupta**

Department of Education  
CMP College University of Allahabad  
Prayagraj, U.P.

&

**Dr. Syed H. Qasim**

Department of Teacher Education  
Allahabad School of Education  
Sam Higginbottom University of Agriculture  
Technology and Sciences  
Prayagraj, UP

**Nitya Publication, Bhopal**



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



#### First Edition 2020

This book or any part thereof may not be reproduced in any form without written permission of the publisher.

#### Publisher's Disclaimer

Due care has been taken while publishing this book, but the Author, Publisher, Printers are not responsible in any manner for any mistake that may have inadvertently crept in.

#### All rights reserved

No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system without permission in writing from the publishers.

Any comments or suggestions should be sent to author and no other place including public domain.

ISBN : 978-93-90390-10-6

Price : Rs. 499/-

#### Published by:

**NITYA PUBLICATIONS**

Gulmohar, Bhopal MP India

web : [www.nityapublications.com](http://www.nityapublications.com)

Email: [info@nityapublications.com](mailto:info@nityapublications.com)

Ph.No. : +91-900-929-1840

137

15

## योग दर्शन की शैक्षिक समझ

डॉ० प्रिया सोनी खरे \*

सम्पूर्ण विश्व का मार्गदर्शन भारत, योग को केन्द्र मानकर करता आया है। योग भारत की सनातन परम्परा का अभिन्न अंग है और इस परम्परा को सम्पूर्ण विश्व में शिक्षा दर्शन के रूप में सुसंगठित रूप से स्थापित करने का श्रेय महर्षि पतंजलि को जाता है। योग के व्यावहारिक पक्ष की ओर ध्यान आकृष्ट करके अष्टांग योग द्वारा परमसत्ता से साक्षात्कार का मार्ग महर्षि पतंजलि ने ही स्पष्ट किया है। योग दर्शन के अनुसार चित्तवृत्तियों का निराध, मोक्ष की प्राप्ति ही मानव जीवन का लक्ष्य है।

#### योग का अर्थ

योग शब्द की उत्पत्ति 'युज्' धातु में 'धन्' प्रत्यय जोड़ने से हुई है, जिसका अर्थ है 'समाधि'। योग एक क्रियात्मक विज्ञान है, जिसके प्रमुख प्रणेता आचार्य पतंजलि को माना गया है। महर्षि पतंजलि का योग सूत्र इसका प्राचीनतम ग्रंथ है। इसलिए योग सूत्रों को पतंजलि दर्शन कहा जाता है। पतंजलि का योग सूत्र चार भागों में विभक्त है-

1. समाधि पाद - इसमें योग का स्वरूप, विशेषता, उद्देश्य, चित्तवृत्ति निरोध, ध्यान केन्द्रित करने के उपायों के बारे में बताया गया है।
2. साधना पाद - इसमें क्रिया योग, कर्मफल, दुःख का स्वाभाव का वर्णन किया गया है।
3. विभूति पाद - इसमें योग की उच्च अवस्था और सिद्धियों का वर्णन किया गया है।
4. कैवल्य पाद - इसमें मुक्ति मार्ग और परमाला की व्याख्या की गयी है।

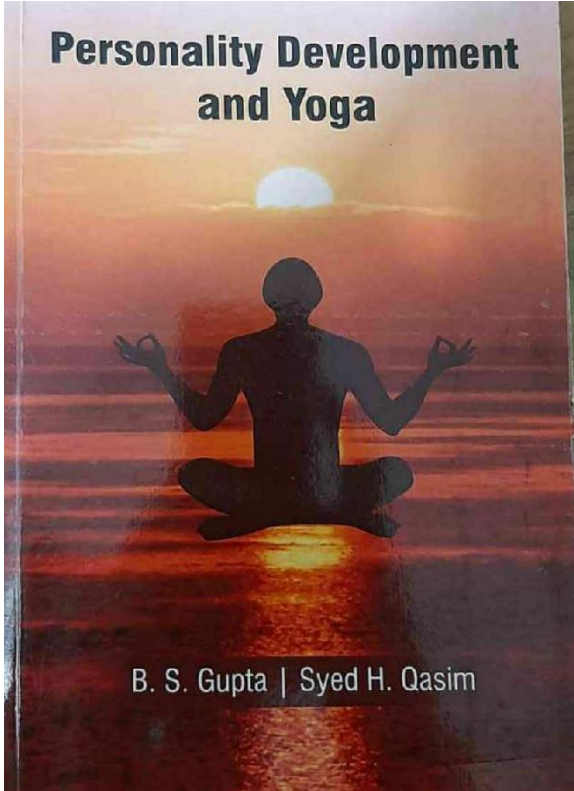
\* शिक्षासूत्र विभाग, सी० एम० पी० कॉलेज इलाहाबाद विश्वविद्यालय, प्रयागराज।



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE (A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Personality Development and Yoga

Edited By

**Dr. B. S. Gupta**

Department of Education  
CMP College University of Allahabad  
Prayagraj, U.P.

&

**Dr. Syed H. Qasim**

Department of Teacher Education  
Allahabad School of Education  
Sam Higginbottom University of Agriculture  
Technology and Sciences  
Prayagraj, UP

**Nitya Publication, Bhopal**



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



**First Edition 2020**  
This book or any part thereof may not be reproduced in any form without written permission of the publisher.

**Publisher's Disclaimer**  
Due care has been taken while publishing this book, but the Author, Publisher, Printers are not responsible in any manner for any mistake that may have inadvertently crept in.

**All rights reserved**  
No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system without permission in writing from the publishers.  
Any comments or suggestions should be sent to author and no other place including public domain.

**ISBN : 978-93-90390-10-6**  
**Price : Rs. 499/-**

**Published by:**  
**NITYA PUBLICATIONS**  
Gulmohar, Bhopal MP India  
web : [www.nityapublications.com](http://www.nityapublications.com)  
Email: [info@nityapublications.com](mailto:info@nityapublications.com)  
Ph.No. : +91-900-929-1840

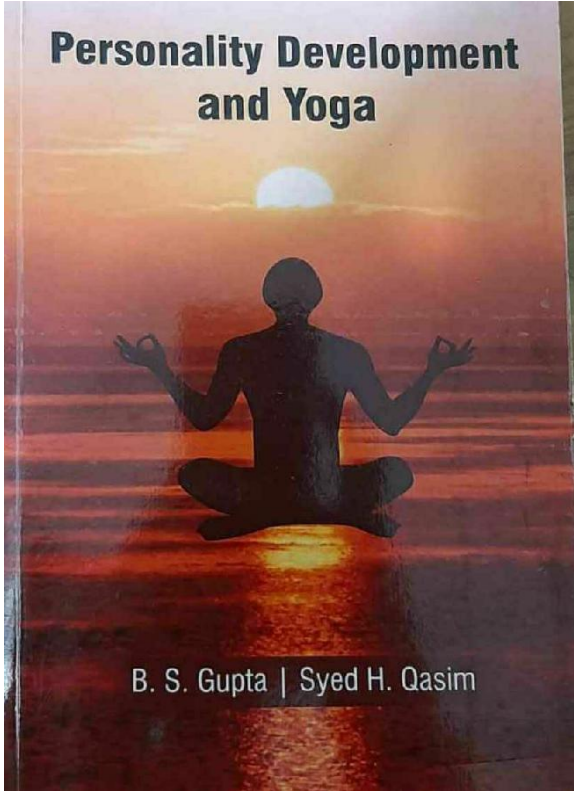
<b>Contents</b>	
1. Personality: Development and its Dimensions	01
2. Yoga Education and Social Re-development	07
3. Teaching Learning System and Yoga	13
4. Holistic Personality Development through Ashtanga Yoga	25
5. Health, Wellness and Fitness	37
6. Personality Development through Yoga	49
7. Physical Fitness through Walking and Yogasana	55
8. Mental Health and Yoga	69
9. Yoga: Physiological and Psychological Well Being	79
10. Impact of Yoga on Mental Health of Adolescents	91
11. Yoga: Basis of Stress Free Life	99
12. Yoga and Health	105
13. Awareness among Pupil Teachers towards Yoga Practice in Schools	115
14. योग का दार्शनिक आधार	127
15. योग दर्शन की शैक्षिक समझ	137
16. शिक्षा में योग का महत्त्व	145
17. दैनिक जीवन में योग का महत्त्व	153
18. योग एवं व्यक्तित्व विकास	163
19. कक्षा शिक्षण में योग की भूमिका	169
20. व्यक्तित्व के बहुआयामी विकास में योग की भूमिका	175
21. व्यक्तित्व के सर्वांगीण विकास में योग की भूमिका	187
22. योग की अवधारणा का व्यक्तित्व विकास में योगदान	195



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE (A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Personality Development and Yoga

Edited By

**Dr. B. S. Gupta**

Department of Education  
CMP College University of Allahabad  
Prayagraj, U.P.

&

**Dr. Syed H. Qasim**

Department of Teacher Education  
Allahabad School of Education  
Sam Higginbottom University of Agriculture  
Technology and Sciences  
Prayagraj, UP

**Nitya Publication, Bhopal**



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



37

5

## Health, Wellness and Fitness

Dr. Jitendra Kumar\* and Kratika Nigam\*\*

Many factors influence an individual's behavior. Healthy lifestyle including healthy diet, regular exercise, stress management, and regular check-ups may help to reduce or eliminate the risk of diseases. The human body is designed to be exercised. Sedentary life style is associated with increased risk of disease and reduced functional capacity. Health benefits can be obtained through moderate level of regular physical activity for all ages.

The strangest thing in the world is that people spend all day scrunched in a chair, be it to watch television, work on computer, or even to read. Its negative health influences include increased anxiety, cardiovascular disease, diabetes, depression and more. But if a person exercises, everything gets reversed.

Physiological factors play a dominant role in addition to the psychological preparation for the physical fitness. Regular exercise can also slow further deterioration in those who have already started to develop cognitive problems.

In order to help combat the trend towards sedentary living and increase in childhood and adult obesity, the Government review of physical education is focusing much attention on pupils learning about the value of healthy, active lifestyles and then being helped to make informed choices about lifelong physical activity. This requires clarification of the knowledge base and creative approaches to the pedagogies which help pupils value and adopt healthy, active lifestyles.

Physical movement is the basic language of the early childhood years. Moving about and physically exploring their immediate surroundings are the main ways young children learn about their

\*Department of Education, CMP College University of Allahabad, Paryagraj.

\*\*Research Scholar, Faculty of Education Integral University, Lucknow.

### First Edition 2020

This book or any part thereof may not be reproduced in any form without written permission of the publisher.

### Publisher's Disclaimer

Due care has been taken while publishing this book, but the Author, Publisher, Printers are not responsible in any manner for any mistake that may have inadvertently crept in.

### All rights reserved

No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system without permission in writing from the publishers.

Any comments or suggestions should be sent to author and no other place including public domain.

ISBN : 978-93-90390-10-6

Price : Rs. 499/-

### Published by:

**NITYA PUBLICATIONS**

Gulmohar, Bhopal MP India

web : [www.nityapublications.com](http://www.nityapublications.com)

Email: [info@nityapublications.com](mailto:info@nityapublications.com)

Ph.No. : +91-900-929-1840

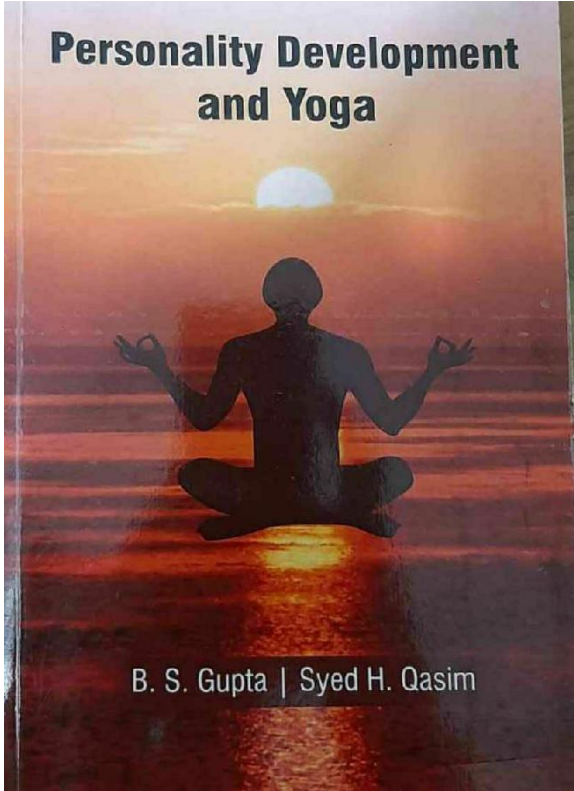




# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE (A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## Personality Development and Yoga

Edited By

**Dr. B. S. Gupta**

Department of Education  
CMP College University of Allahabad  
Prayagraj, U.P.

&

**Dr. Syed H. Qasim**

Department of Teacher Education  
Allahabad School of Education  
Sam Higginbottom University of Agriculture  
Technology and Sciences  
Prayagraj, UP

**Nitya Publication, Bhopal**



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



#### First Edition 2020

This book or any part thereof may not be reproduced in any form without written permission of the publisher.

#### Publisher's Disclaimer

Due care has been taken while publishing this book, but the Author, Publisher, Printers are not responsible in any manner for any mistake that may have inadvertently crept in.

#### All rights reserved

No part of this book may be reprinted or reproduced or utilized in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system without permission in writing from the publishers.

Any comments or suggestions should be sent to author and no other place including public domain.

ISBN : 978-93-90390-10-6

Price : Rs. 499/-

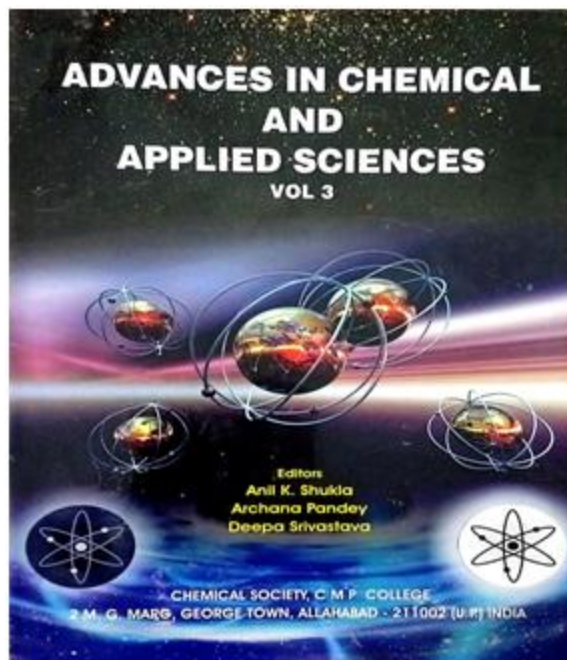
Published by:

**NITYA PUBLICATIONS**

Gulmohar, Bhopal MP India  
web : [www.nityapublications.com](http://www.nityapublications.com)  
Email: [info@nityapublications.com](mailto:info@nityapublications.com)  
Ph.No. : +91-900-929-1840

### Contents

1. Personality: Development and its Dimensions	01
2. Yoga Education and Social Re-development	07
3. Teaching Learning System and Yoga	13
4. Holistic Personality Development through Ashtanga Yoga	25
5. Health, Wellness and Fitness	37
6. Personality Development through Yoga	49
7. Physical Fitness through Walking and Yogasana	55
8. Mental Health and Yoga	69
9. Yoga: Physiological and Psychological Well Being	79
10. Impact of Yoga on Mental Health of Adolescents	91
11. Yoga: Basis of Stress Free Life	99
12. Yoga and Health	105
13. Awareness among Pupil Teachers towards Yoga Practice in Schools	115
14. योग का दार्शनिक आधार	127
15. योग दर्शन की शैक्षिक समझ	137
16. शिक्षा में योग का महत्व	145
17. दैनिक जीवन में योग का महत्व	153
18. योग एवं व्यक्तित्व विकास	163
19. कक्षा शिक्षण में योग की भूमिका	169
20. व्यक्तित्व के बहुआयामी विकास में योग की भूमिका	175
21. व्यक्तित्व के सर्वांगीण विकास में योग की भूमिका	187
22. योग की अवधारणा का व्यक्तित्व विकास में योगदान	195



### Advances in Chemical and Applied Sciences - Vol 3

ISBN : 978-93-88018-19-7

Editors : Dr. Anil K. Shukla  
Dr. Archana Pandey  
Dr. Deepa Srivastava

Associate Editors : Dr. Sunanda Das  
Dr. Roli Srivastava  
Dr. Babita Agrawal  
Dr. Santosh K. Srivastava  
Dr. Arti Gupta  
Dr. Mridula Tripathi  
Dr. Praveen Tripathi  
Dr. Deepanjali Pandey  
Dr. Pramod Kumar  
Miss. Himani Chaurasia

First Edition : 2020  
Price : 600/-

© : Editors

The responsibility for facts stated, opinion expressed or conclusions reached and plagiarism, if any, in this book is entirely that of the Author. The Publisher / Editors / Editorial Board bears no responsibility for them whatsoever.

Published & Printed by :

Firstprint Publications  
Tagore Town, Prayagraj-211002  
Contact : +91-9792737737  
E-mail : [firstprintpublications@gmail.com](mailto:firstprintpublications@gmail.com)



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



231

*Advances in Chemical and Applied Sciences - Vol 3*  
Editors - Anil K. Shukla, Archana Pandey, Deepa Srivastava  
ISBN : 978-93-88018-19-7  
Edition : 2020

## Construction and Standardization of Biology Achievement Test for Higher Secondary Students

Dilip Kumar Singh

School Biology is a subject of living reality. Children from the very beginning start observing plant and animal life. Later on, in the higher secondary classes, its study further broadens their outlook. They learn analysis, observation of new facts, criticism, inference, application of new knowledge and thus gather better understanding of the subject matter. Each and every aspect in the Biological Science helps us in our day to day living. Study of some plants and animals helps in the understanding of other plants, animals and finally the human beings. Study of Biology helps us in the growth or procurement of food for mankind.

Achievement test was constructed on the basis of the objectives of teaching, knowledge, understanding, application and skill in Biology at Higher Secondary level. Many achievement tests are already available in Biology. Before constructing achievement test, investigator first reviewed achievement test available in the field of Biology. After reviewing them, need was felt to develop an achievement test based on the latest syllabi recommended by U.P. Board for Biology at XI level. Text books of Biology were utilized as source for framing items. The Biology text book was studied thoroughly and concepts were understood. Questions were selected with the help and advice of subject experts and also by choosing repeated questions by verifying many question banks. Efforts were put to identify the important units of Biology at XI level. On this basis preliminary draft was prepared. Items are framed in the form of multiple choice questions. This test is prepared and standardized having following steps-

1. Planning of the test
2. Preparation of the test
3. Administration of the test
4. Item Analysis
5. Standardization of Achievement test

### 1. Planning of the Test :

Planning of a test is a first and very important step in the construction of an achievement test. A standardized achievement test needs very careful

Assistant Professor Department of Education  
C.M.P. Degree College (A constituent PG College  
of University of Allahabad) Prayagraj (U. P.) India  
E-mail : [dilipkcs@gmail.com](mailto:dilipkcs@gmail.com)

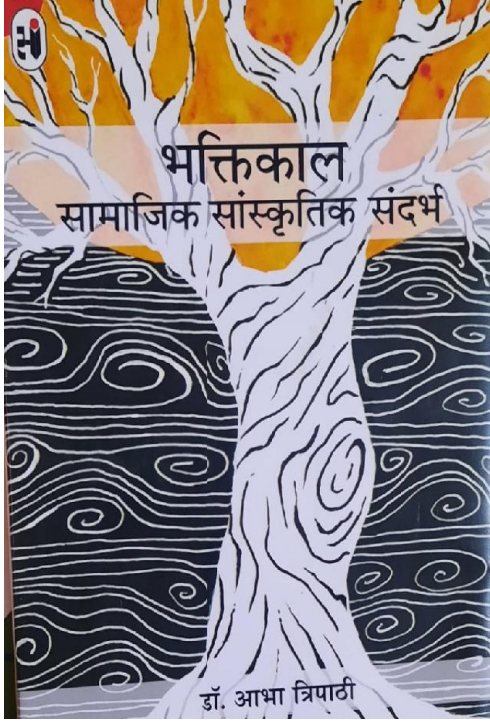


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



भक्तिकाल : सामाजिक सांस्कृतिक संदर्भ

ISBN : 978-81-945946-3-5

प्रकाशक : साहित्य भंडार

50, चाहचन्द (जीरो रोड), प्रयागराज-211 003

फोन : 9415214878, 8874029428

ई-मेल : [sahityabhandar50@gmail.com](mailto:sahityabhandar50@gmail.com)

© : डॉ. आभा त्रिपाठी

प्रथम संस्करण : 2020

मूल्य : ₹ 500.00

आवरण चित्र : श्रेया शुक्ला

लेजर टाइपसेटिंग : अमन कम्प्यूटर, बेनीगंज, प्रयागराज

मुद्रक : भगवती प्रिण्टर्स, प्रयागराज

Bhaktikal : Samajik Sanskritik Sandarbh by Dr. Abha Tripathi

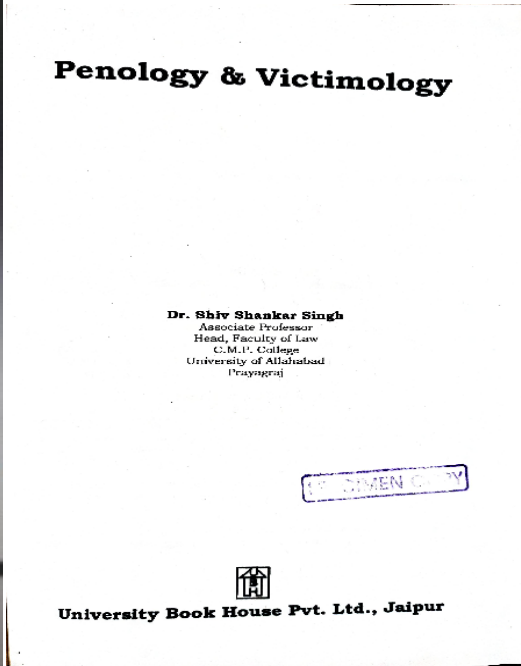
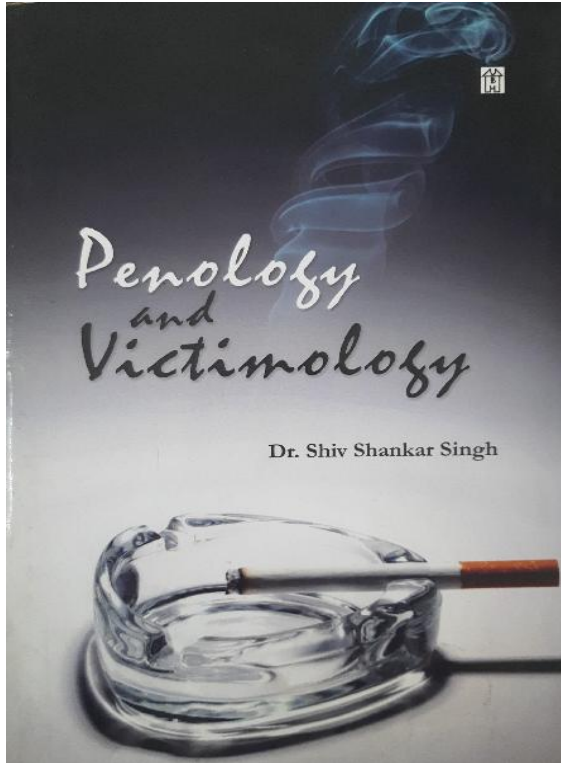


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)





# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



**Published by :**  
**University Book House (P) Ltd.**  
79, Chaura Rasta, Jaipur  
Phone : 0141-2311466, 2313382  
E-mail : uni\_bookhouse@yahoo.com  
Website : www.universitybookhouse.in

ISBN : 978-81-942467-7-0

**First Edition : 2020**

© Author

**Lasertype Setting & Printer**  
Bhumi Graphics & Saloni Offset Printers, Jaipur

*All right reserved. No part of this work may be copied, adapted, abridged or translated, stored in any retrieval system, computer system, photographic or other system or transmitted in any form by any means whether electronic, mechanical, digital, optical, photographic or otherwise without a prior written permission of the copyright holders. M/s University Book House (P) Ltd., Jaipur.*

*This book is sold subject to the condition that it, or any part of it, shall not by way of trade or otherwise, be sold, re-sold, displaying, advertised, or otherwise circulated, without the publisher's prior written consent, in any form of binding, cover or title other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser(s).*

*Any breach of any of these rights or conditions will entail civil and criminal action without further notice.*

*While every effort has been made to avoid any mistake or omission, this publication is being sold on the condition and understanding that neither the author nor the publishers or printers would be liable in any manner to any person by reason of any mistake or omission in this publication or for any action taken or omitted to be taken on advice rendered or accepted on the basis of this work.*

*Rights of Publication reserved with the Publishers.*

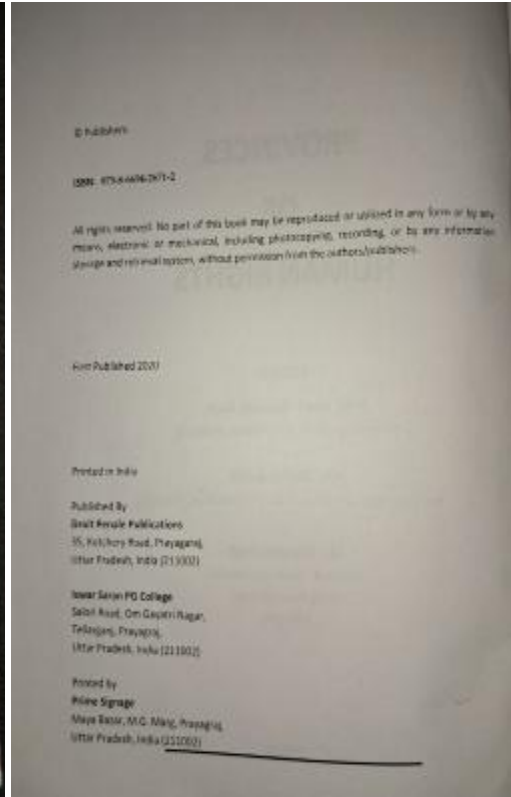
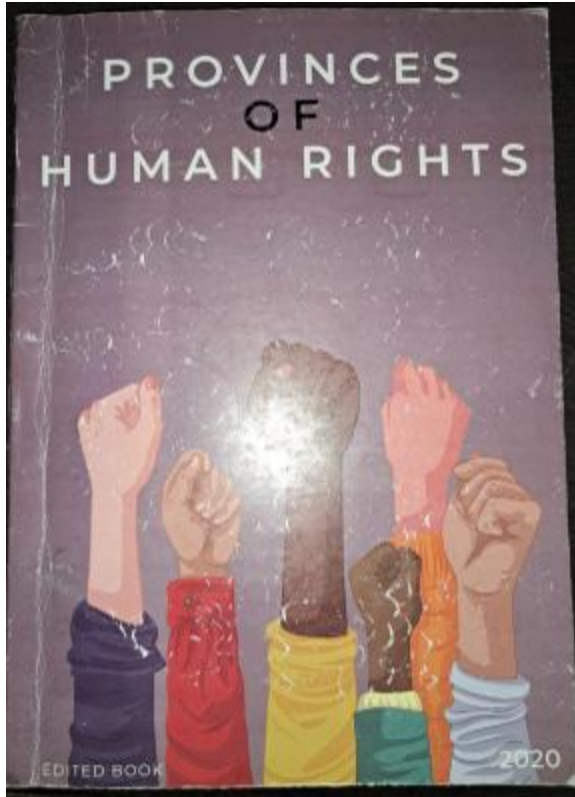


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



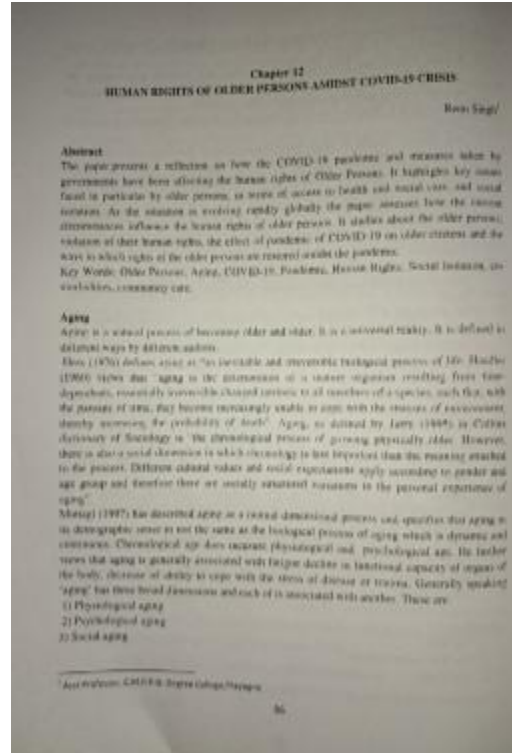


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)





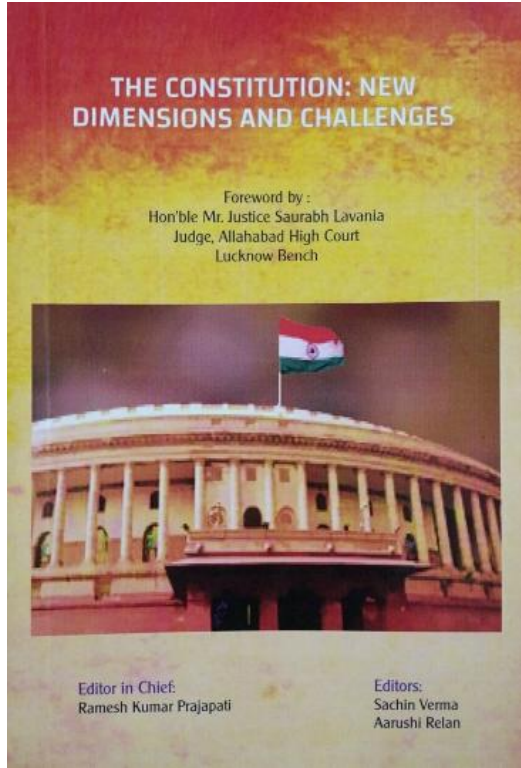


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Publisher:

BOOK RIVERS

Address: C-1484, Indira Nagar, Near C-Block Churaha, Lucknow 226016

Place: Lucknow

Website: [www.bookrivers.com](http://www.bookrivers.com)

Email: [publish@bookrivers.com](mailto:publish@bookrivers.com)

Mobile: +91-9695375469

Year: 2020

Title of the Book: "The Constitution: New Dimensions & Challenges"

Editor in Chief: Ramesh Kumar Prajapati

Editors: Sachin Verma & Aarushi Relan

ISBN: 978-93-90548-27-9

MRP: 700/-

Copyright©: Authors

All Rights Reserved

No part of this publication may be reproduced, transmitted or stored in a retrieval system, in any form or by any means, electronic, mechanical, photocopying recording or otherwise, without the prior permission of the authors.



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



अध्याय- 26

भारतीय संविधान और असंगठित क्षेत्र में कार्यरत कामगार : एक सामाजिक-विधिक अध्ययन

लेखक :  
रमेश कुमार भारती  
असिस्टेंट प्रोफेसर, विधि विभाग  
सी० एम० पी० डिग्री कॉलेज  
इलाहाबाद विश्वविद्यालय, प्रयागराज  
एच  
अर्थशास्त्र  
असिस्टेंट प्रोफेसर, विधि विभाग  
सी० एम० पी० डिग्री कॉलेज  
इलाहाबाद विश्वविद्यालय, प्रयागराज

संसारिका- "जय जवान, जय किसान" जैसी घण्टियों से सुशोभित किये जाने वाले भारत देश का किसान, जो कि असंगठित श्रमिक वर्ग के अन्तर्गत आता है, वर्तमान समय में दुनियाँ दशा बहुत ही दयनीय व शोचनीय है। देश की अर्थव्यवस्था में बहुतायत योगदान देने वाले ऐसे अनपढ़ाया तथा असंगठित श्रमिक आज सरकारों की उपेक्षा व विधिलता की वजह से हताश और निराश हैं। यद्यपि कि भारतीय संविधान में ऐसे वर्गों के हितार्थ पर्याप्त उपबन्ध किये गये हैं, तथापि आज भी इनकी हालत बदतर बनी हुई है। इस श्रमिक वर्ग की यह हालत इस स्वाह से हुई कि श्रम क्षेत्र में दिना क्रिशी योजना के, जब जैसी आवश्यकता पड़े, समस्याओं के तात्कालीन निवारण हेतु विधियों का निर्माण किया जाता रहा, जो परचाइवर्ती समय में गले ही अनुपयोगी होती जा रही हैं। यही कारण है कि श्रम क्षेत्र में कानूनों की अधिकता हो गयी है। जब कोई विवाद या समस्या उत्पन्न होती है तो यह निश्चय करना बड़ा कठिन हो जाता है कि इस समस्या का समाधान किस कानून के अन्तर्गत निकाला जाए। भारत देश में भी केल्विन के द्वारा विधि के मानात्मक सिद्धान्त को अपनाया तो गया है, परन्तु इसके आलेख में समुचित विधियों का निर्माण नहीं हो पा रहा है, और यदि कुछ विधियों का निर्माण हुआ भी तो उनका समुचित प्रवर्तन नहीं हो सका है। विधिरही प्रश्न यह है कि यदि कोई कानून (मानक) भारत के संविधान (मूल मानक) के उद्देश्यों को पूर्ण करने में सफल हो तो ऐसे कानून की प्रसिद्धि क्या होगी? इस अध्याय में भारतीय संविधान के अन्तर्गत श्रमिक वर्ग के कल्याणार्थ किये गये प्रावधानों का तथा इनका सामाजिक व विधिक विश्लेषण प्रस्तुत करने का प्रयास किया गया है।

महत्वपूर्ण शब्दावली- भारत का संविधान, मौलिक अधिकार, राज्य के नीति-निर्देशक तत्व, आर्थिक, सामाजिक और राजनैतिक न्याय, श्रम, असंगठित श्रमिक, समाज कल्याण, श्रमिक हित, सामाजिक सुरक्षा, लोक कल्याणकारी राज्य इत्यादि।

प्रस्तावना- भारतीय संविधान का अध्ययन करने पर यह पाया गया कि इसका मूल उद्देश्य भारत के समस्त नागरिकों को गरिमायुक्त जीवन प्रदान करना है। गरिमायुक्त जीवन प्रदान करने के लक्ष्य को प्राप्त करने के लिए यहाँ की जनता हेतु आर्थिक, सामाजिक व राजनैतिक न्याय सुलभ करने की महती आवश्यकता है। राजनैतिक न्याय सुलभ करने में हमारे सरकारों ने बड़ी

## कोविड-19 काल

के तनाव प्रबन्धन में भारतीय  
संगीत का समसामयिक चिन्तन



संपादक

डॉ० इभा सिरोटिया



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



आवकक्या डिग्री कोलेज की ओर से  
दिया इत्यनेशन पब्लिशिंग हाउस प्रकाशित, बिक्री एवं वितरित

संरक्षक  
डी पीके जयसवाल  
अध्यक्ष, शाही निकेतन  
आवकक्या डिग्री कोलेज प्रयागराज



डॉ। रमि सिंह  
प्रधान, आर्य कला डिग्री कॉलेज प्रयागराज  
प्रथम संस्करण : 2020



Published by  
**DISHA INTERNATIONAL PUBLISHING HOUSE**  
31-S, Bhunna Taga, P.S. Rabupura,  
Greater Noida-203209 (INDIA)  
Mob. : 7080806934, 9760316934  
E-mail : [dishainternationalpublishing@gmail.com](mailto:dishainternationalpublishing@gmail.com)  
Website : [www.dishainternationalpublishing.com](http://www.dishainternationalpublishing.com)

Also Available at:

amazon.in



© आवकक्या डिग्री कोलेज प्रयागराज  
ISBN:978-93-87002-70-8

All rights are reserved with the publisher, editors, including the right to translate or reproduce this book or parts thereof except for brief quotations in critical or reviews.

Printed by Disha International Publishing House

23

## संगीत चिकित्सा

डॉ। रमि गुप्ता (संगीत विभागाध्यक्ष), सी०एम०पी० पी०जी० कॉलेज, प्रयागराज (2020)

संगीत नैसर्गिक रूप से हृदय के संवेगों एवं भावनाओं को प्रकट करने की कला है और इसीलिए इसे सर्वश्रेष्ठ ललित कला का स्थान प्राप्त है। हृदय के उद्गार कलाकार के व्यक्तित्व एवं अंतःकरण का वर्णन करते हैं और कलाकार अपनी कला के माध्यम से परा आनन्द एवं मोक्ष प्राप्त करने की कोशिश करता है।

संगीत आत्मा की औषधि तथा भावनिष्पत्तिक का सरासरी सौन्दर्यमय माध्यम है। आज के तेजस्वी समाज में संगीत औषधि के समान कारण सिद्ध हो सकती है। आधुनिक युग में विषाद एक महत्वपूर्ण स्वास्थ्य की समस्या है। संयुक्त परिवारों का विखण्डन और एकाकी परिवारों का बढ़ता मोह-जल इस समस्या में इजाजत करते जा रहे हैं। मानसिक रोग इस सदी की सबसे विकट समस्या है। इसके आन्तरिक मानसिक तनाव अपना किसी बाहरी कारण जैसे प्रिय व्यक्ति का वियोग, महत्वपूर्ण वस्तु का खोना, परीक्षा में दुर्घटित सफलता न मिलना आदि क्षेत्र सदास पर्यटन पर तीव्र उद्वेगिता की मनःस्थिति आ जाती है और लम्बे समय तक चलती है।

संगीत विभिन्न प्रकार के भावों का निर्माण कर मानव- मन व शरीर पर गहरा असर करता है इस प्रभावोत्पादक क्षमता का प्रयोग जब चिकित्सा के रूप में शारीरिक एवं मानसिक संतुलन को ज्वलित करने के उद्देश्य से किया जाता है तो यह प्रभावोत्पादक प्रक्रिया संगीत चिकित्सा के नाम से जानी जाती है।

संगीत चिकित्सा केवल आलेख का विषय नहीं रह गया है बल्कि आज यह समूचा विषय प्रवेश और प्रभाव में लाने की अवस्था में है। प्राण अर्थात् तेजी से एकाग्रित किए जा रहे हैं और हमारी प्रचलित पद्धति धीरे-धीरे आधुनिक विज्ञान में तब्दील होती जा रही है।

संगीतिक चिकित्सा के दृष्टिकोण से यदि हम हमारे प्राचीन संगीतिक इतिहास पर दृष्टि डालें तो हम पाते हैं कि संगीत एवं चिकित्सा का यह सम्बन्ध बहुत ही प्राचीन है एवं मनुष्य ने बहुत समय पूर्व ही संगीत के चिकित्सकीय उपयोग के विषय में जानकारी हासिल कर ली थी एवं उसका उपयोग चिकित्सा के रूप में करने भी लगे थे।

सर्वप्रथम संगीत के चिकित्सकीय प्रयोग का उल्लेख हमें ताम्र युग में मिलता है। "जब कोई ज्वर पड़ता था तो लोग उसे दवा नहीं देते थे, बल्कि संगीत द्वारा ही उसका उपचार करते थे और उस लक्ष्योत्पन्न



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



डॉ. गौरव शुक्ल  
डॉ. स्वामि शर्मा

श्री विनायक पब्लिकेशन, आगरा

प्रकाशक

**श्री विनायक पब्लिकेशन**

229, शास्त्रीपुरम, सिकन्दरा, आगरा-282 007 (उ. प्र.)

मोबाइल : 9412458170, 9893635398

E-mail : [info@vinayakpublishers.com](mailto:info@vinayakpublishers.com)

[shreevinayakpublication2009@gmail.com](mailto:shreevinayakpublication2009@gmail.com)

Visit us : [www.vinayakpublishers.com](http://www.vinayakpublishers.com)

© सम्पादकगण

प्रथम संस्करण : 2020

Code : R0012

ISBN : 978-81-948717-8-1

मूल्य : ₹ 499/-

शब्द संयोजन एवं मुद्रक : श्री विनायक पब्लिशिंग यूनिट, आगरा

No part of this publication may be reproduced, stored in a retrieval system of transmitted, in any form or by any means, mechanical, photocopying recording, or otherwise, without prior written permission of the publisher. Vinayak has obtained all the information in this book from the sources believed to be reliable and true. However, Vinayak or its editors or Author don't take any responsibility for the absolute accuracy of any information published and the damages or loss suffered thereupon. All disputes subject to Agra Jurisdiction only.

For further information about the books published By Vinayak kindly lon on to [www.vinayakpublishers.com](http://www.vinayakpublishers.com) or email to [shreevinayakpublication2009@gmail.com](mailto:shreevinayakpublication2009@gmail.com).



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



5

## वर्तमान समय के परिप्रेक्ष्य में संगीत शिक्षण का स्वरूप

डॉ. रश्मि गुप्ता

(असिस्टेंट प्रोफेसर)

असिस्टेंट प्रोफेसर, विभागाध्यक्ष (संगीत विभाग)

सी.एम.पी.ओ. कॉलेज,

प्रयागराज (उ.प्र.)

विश्व के मूल में निहित समाख्यान आनन्द का मानव के लिए अभिव्यक्ति रूप संगीत या नाद है। उक्त मधुनाद आनन्द की उभिया संगीत के तरंगित स्वरों की लहरियाँ हैं। वेद विद्या के अनुरार रुदोमयी अनुभूति ही सृष्टि है। यह समास विश्व छन्द की शक्ति से जन्म लेता है। उसी से प्राणमन्त हैं छन्दों का विस्तार ही साग है। भारत ने ही सर्वप्रथम विश्व को संगीत का आद्वितीय उपहार प्रदान किया है। प्राचीनकाल से ही संगीत समाज तथा संस्कृति का अविन्न अंग रहा है। भारतीय मनीषियों ने इसे इत्यगत भावों को प्रकट करके का सफल साधन मानते हुए धर्म, अर्थ, काम और मोक्ष की प्राप्ति का सर्वोत्तम उपाय माना है। इस लक्ष्य को प्राप्त करने के लिए इसकी विधिवत् शिक्षा का होना आवश्यक है। जब संगीत शिक्षा की बात करते हैं तो इसका अर्थ शास्त्रीय संगीत से ही होता है।

संगीत शिक्षा या सीखने का अर्थ इसके क्रियात्मक व शास्त्रीय रूप के सभी पहलुओं के आभ्यसन से है। स्वर, लय, ताल का ज्ञान, स्वरों की धारीकियों, रागों का विस्तृत ज्ञान, ये ऐसी मूल बातें हैं, जिनका होने पर ही सन्ने अर्थ में संगीत सीखना कहा जा सकता है नई टेक्नोलॉजी के संदर्भ में संगीत शिक्षा समझने के लिए पहले

संगीत पंजरी | 31



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



कोविड-19 काल के तनाव प्रबन्धन में भारतीय संगीत  
का समसामयिक चिन्तन

संपादक:  
डॉ० इन्दा सिमरोहिता  
एसोसिएट प्रोफेसर, संगीत शाखा  
विभागाध्यक्ष संगीत विभाग  
आर्यकन्या डिग्री कॉलेज  
प्रयागराज



DISHA INTERNATIONAL PUBLISHING HOUSE  
Greater Noida

आर्यकन्या डिग्री कॉलेज की ओर से  
इसमें उपस्थित सभी प्रकाशित, निर्यात एवं निर्यात

संपादक  
डॉ० इन्दा सिमरोहिता  
एसोसिएट प्रोफेसर, संगीत शाखा  
आर्यकन्या डिग्री कॉलेज, प्रयागराज



एडिटर इन चार्ज  
प्रबन्धी, आर्यकन्या डिग्री कॉलेज, प्रयागराज  
प्रथम संस्करण - 2020



Published by  
**DISHA INTERNATIONAL PUBLISHING HOUSE**  
311-S, Bhunna Taps, P.S. Rabupura,  
Greater Noida-203209 (INDIA)  
Mob. : 7080806984, 9760316934  
E-mail : [dishainternationalpublishing@gmail.com](mailto:dishainternationalpublishing@gmail.com)  
Website : [www.dishainternationalpublishing.com](http://www.dishainternationalpublishing.com)

Also Available at:  
**amazon.in**



© आर्यकन्या डिग्री कॉलेज प्रयागराज  
ISBN: 978-93-87002-70-8

All rights are reserved with the publisher, editors, including the right to translate or reproduce this book or parts thereof except for brief quotations in critical or reviews.

Printed by *Disha International Publishing House*



# चौधरी महादेव प्रसाद महाविद्यालय

## C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)  
Under the Strengthening Component of DBT Star College Scheme  
Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



33

### संगीत - शिक्षण के क्षेत्र में संचार क्रांति: कोरोना काल के विशेष संदर्भ में

कृ. आकंशा पाल, शोध छात्रा, संगीत एवं प्रदर्शन कला विभाग, इलाहाबाद विश्वविद्यालय, इलाहाबाद

द्वितीय भारतीय संगीत विभाग की सर्व प्रथम एवं अत्यंत प्राचीनता संस्कृति है। संस्कृति के मूल्यों को रूप-विधान में बाँधना कला का कृतित्व है। कलाओं में श्रेष्ठतम कलाएं और उत्तम कलाओं में सर्वश्रेष्ठ संगीत एकमात्र ऐसी कला है जो मानव पावनार्थों की अभिव्यंजना का सागर एवं सु-रता साधन है। संगीत मानव के आश्रय आदिम युग से आधुनिक युग तक चलता आ रहा है। यह मानव प्रकृति के कोमलतम प्रकाश से अंकुरित होता है। संगीत अपने अनेक स्वरूपों में मानव जीवन के रोम-रोम में बसा हुआ है। संगीत अपनी रागीयता और कल्पना से मन को शांत-निर्भर कर देता है।

कला सौन्दर्य की प्रतीक एवं आत्मा की सच्ची प्रकार है। कला आत्मविश्यांकी है।  
-रविन्द्रनाथ टैगोर

मानव इतिहास के आदि काल से ज्ञान का विविध रूप में विकास और प्रसार होता रहा है। प्रत्येक देश अपनी सामाजिक, सांस्कृतिक, अर्थिकता की अभिव्यक्ति देने, सम्पन्न एवं सशक्त होना तथा साथ ही साथ ही बुद्धिमानों का सामना करने हेतु प्रयास करता है। समाज के हर वर्ग को अपने समस्त साधनों का उपयोग करते हुए लाभ पहुंचाने का लक्ष्य निर्धारित करता है। इस लक्ष्य तक पहुंचने का प्रमुख साधन है शिक्षा। शिक्षा व्यक्तिक विकास का आवश्यक साधन है। राष्ट्रीय शिक्षा समाज में अत्यंत चलने वाली प्रक्रिया है। निरंतर यह शिक्षा ही है जो मानव को पारंपरिक प्रवृत्तियों से जका डकार कर सत्य एवं सामाजिक प्राणी बनाती है साथ ही शिक्षा ही है माध्यम से समाज अपनी सभ्यता व संस्कृति को रखा करते हुए उसे एक पीढ़ी से दूसरी पीढ़ी को स्थानान्तरित करते हैं।

प्राचीन शिक्षा प्रणाली में भी इस बात के प्रचुर प्रमाण हैं कि प्राचीनकाल में संगीत-शिक्षण अपने चरमोत्कर्ष पर था। गुरु का शिष्य को विद्यादान करना तथा शिष्य को द्वारा शिक्षा प्रदान करने की परंपरा ही शिक्षा का मुख्य उद्देश्य था। 2 विशेष रूप से यदि देखा जाए तो संगीतानुगत शिक्षण की यह प्रणाली प्राचीन काल से लेकर आधुनिक काल तक चलती आ रही

आज संगीत के संस्थागत शिक्षण के प्रकार ने संगीत की संवादात्मक प्रयोजनीयता को बढ़ावा दिया



# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



डॉ. गौरव शुक्ल  
डॉ. स्वाति शर्मा

श्री विनायक पब्लिकेशन, आगरा

प्रकाशक

**श्री विनायक पब्लिकेशन**

229, शास्त्रीपुरम, सिकन्दरा, आगरा-282 007 (उ. प्र.)

मोबाइल : 9412458170, 9893635398

E-mail : [info@vinayakpublishers.com](mailto:info@vinayakpublishers.com)

[shreevinayakpublication2009@gmail.com](mailto:shreevinayakpublication2009@gmail.com)

Visit us : [www.vinayakpublishers.com](http://www.vinayakpublishers.com)

© सम्पादकगण

प्रथम संस्करण : 2020

Code : R0012

ISBN : 978-81-948717-8-1

मूल्य : ₹ 499/-

शब्द संयोजन एवं मुद्रक : श्री विनायक पब्लिशिंग यूनिट, आगरा

No part of this publication may be reproduced, stored in a retrieval system of transmitted, in any form or by any means, mechanical, photocopying recording, or otherwise, without prior written permission of the publisher. Vinayak has obtained all the information in this book from the sources believed to be reliable and true. However, Vinayak or its editors or Author don't take any responsibility for the absolute accuracy of any information published and the damages or loss suffered thereupon. All disputes subject to Agra Jurisdiction only.

For further information about the books published By Vinayak kindly lon on to [www.vinayakpublishers.com](http://www.vinayakpublishers.com) or email to [shreevinayakpublication2009@gmail.com](mailto:shreevinayakpublication2009@gmail.com).





# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



ScienceDirect

Access through your institution

Purchase PDF

Laser-Induced Breakdown Spectroscopy  
(Second Edition)  
2020, Pages 385-399

Chapter 17 - Study of the  
different parts of a tokamak  
using laser-induced breakdown  
spectroscopy

Gulab Singh Maurya<sup>a</sup>, Pravin Kumar Tiwari<sup>b,c</sup>,  
Rohit Kumar<sup>d</sup>, Rajesh Kumar Singh<sup>c</sup>,  
Awadhesh Kumar Rai<sup>b</sup>

Show more

Outline | Share | Cite

<https://doi.org/10.1016/B978-0-12-818829-3.00017-4>  
Get rights and content

Abstract

In the coming era, nuclear ene

FEEDBACK

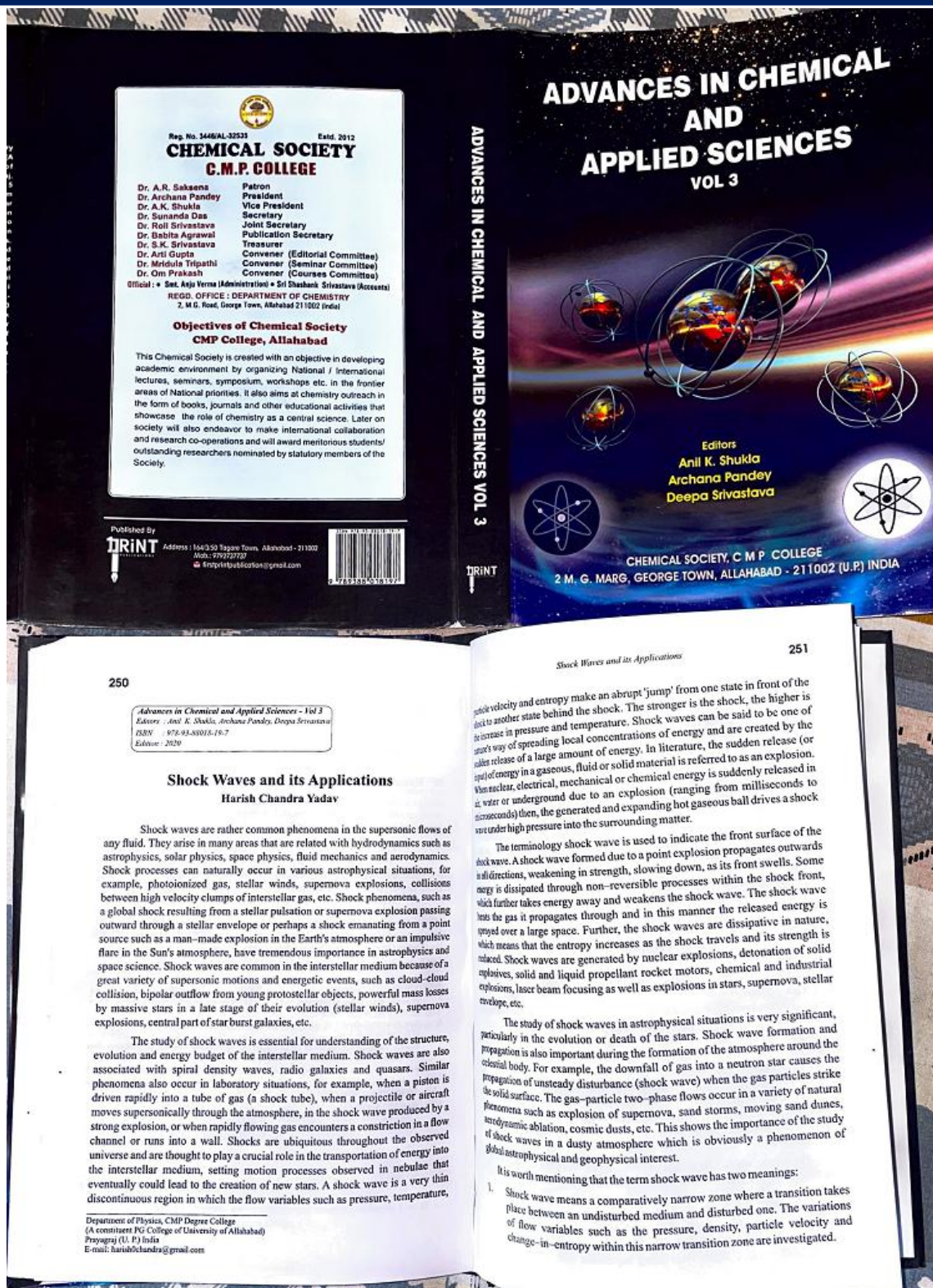


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



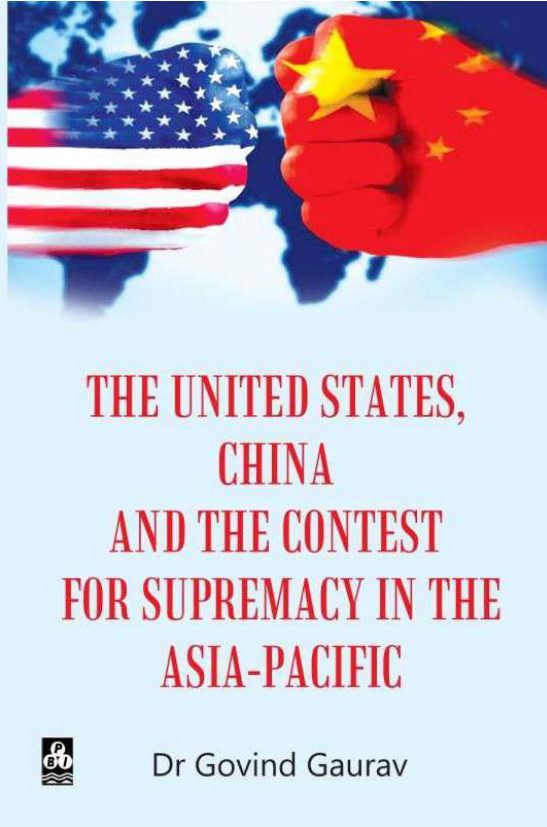


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



**The United States, China and the Contest for Supremacy in the Asia-Pacific**

© Govind Gaurav

The book is partially based on the doctoral research of the author, which was awarded and recommended for publication by Banaras Hindu University.

All rights reserved. No part of this book may be reproduced, stored in a retrieval system or transmitted, in any form by any means, electronic, mechanical, magnetic, optical, chemical, manual, photocopying, recording or otherwise, without the prior written consent of its writer and publisher.

First Published 2020

ISBN : 978-93-88536-45-5

The opinions/views expressed in this book are solely of the authors and do not represent the opinions/standings/thoughts of Pacific Books International.

*Published by :*  
**Pacific Books International**  
108, First Floor, 4832/24, Prahlad Street,  
Ansari Road, Darya Ganj,  
New Delhi - 110 002  
Ph.: 011-23268444, Mob.: 9212526400  
e-mail: [pacificbooks@rediffmail.com](mailto:pacificbooks@rediffmail.com)  
[pacificbooksinternational@gmail.com](mailto:pacificbooksinternational@gmail.com)  
Website: [www.pacificbookinternational.com](http://www.pacificbookinternational.com)

*Typesetting by :*  
**Sanya Computers**  
Delhi

*Printed at :*  
**Roshan Digital Printing**  
Delhi

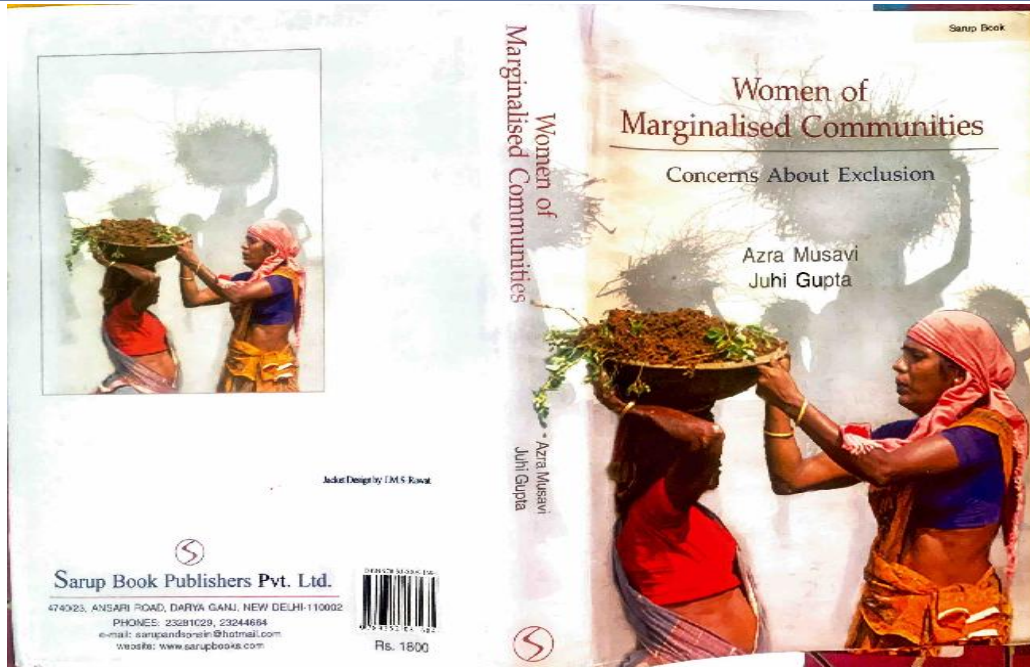


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



## 10

### Reconfiguration of Patriarchy as Related to Mental Health of Educated Elderly Women in Uttar Pradesh

RUCHIKA VARMA

#### ABSTRACTS

The patriarchal structure of Indian society is in a period of transition. The women's movement all over the world fought for equal status for women by realising male domination and patriarchal structures. With their persistent efforts, patriarchal structures are changing, and reconfiguring in various ways. The present paper studies the notions and ideologies of patriarchy in the elderly women of Allahabad City in North India and its relation to their well-being. 10 elderly women were interviewed using an in-depth interview method focusing on the three themes, which were basic patriarchal norms, their changing patterns, and the ways these changes affect their well-being. The results are discussed in the light of researches done in the area of mental health of elderly women.

**Keywords:** elderly women, mental health patriarchy, Allahabad, well being

Reconfiguration of Patriarchy as Related to Mental Health of Educated 107

#### Introduction

The process of women empowerment in the light of changing patriarchal ideologies in Indian society is undergoing transition. The women's movement has a long history in India, and the changes which are taking place in Indian society have not followed a chronological or linear pattern but have at all stages involved a collage of influences including the local, national, and international platform. In various feminist movement, there had been a massive struggle of women to reduce the discrimination, inequalities amongst sexes, and gaining equal status with men. One of the offshoots of this movement and which later on became the foremost agenda of feminists and social activists, was the question of challenging patriarchy. In the post-independence period, according to Vina Mjundak, 1995, the women's question disappeared from the public arena. World Conference on Women was held in Mexico, the issue of women's equality and their contribution to Development and Peace was raised, the traditional roles of women defined by patriarchy were dominant and there was minimal awareness of women regarding the violation of these norms, event, the agenda of women's health and education became foremost to be addressed by the UN Nations to empower women. The period from 1975-85 was declared as the International Decade of the Woman, and a significant date on various aspects of women's status, popularly known as *Towards Equality Report (1974)*. From then, the period of transition began, and the roles of women started modifying, and her education and participation in the paid workforce started. In India, these objectives became even more important after 2001, the year of women's empowerment.

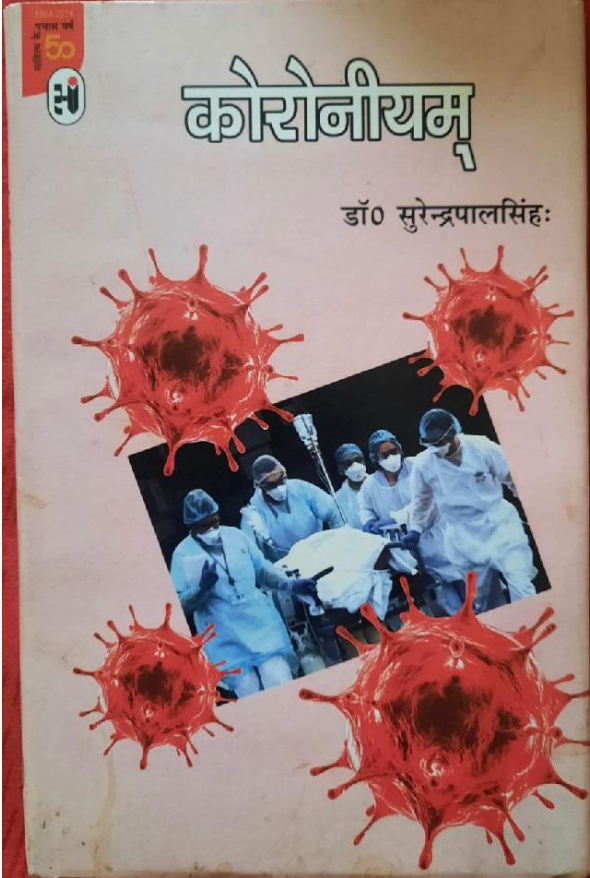


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



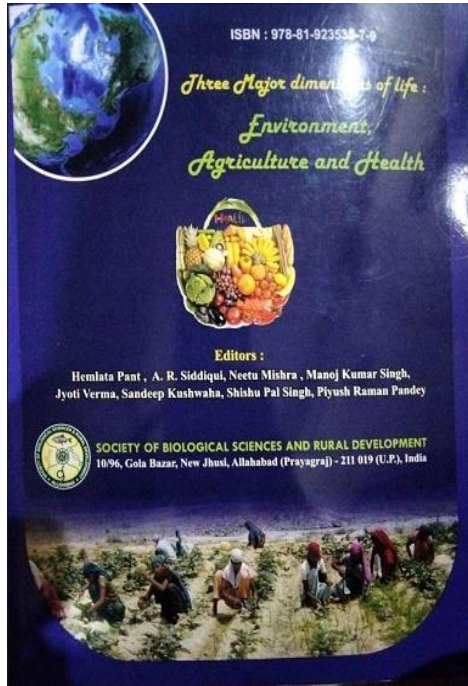
कोरोनीयम्  
ISBN : 978-81-945946-2-8  
प्रकाशक : साहित्य भंडार  
50, चाहचन्द (जीरो रोड), प्रयागराज-211 003  
फोन : 9415214878, 8874029428  
ई-मेल : [sahityabhandar50@gmail.com](mailto:sahityabhandar50@gmail.com)  
© : डॉ. सुरेन्द्र पाल सिंह  
प्रथम संस्करण : 2020  
मूल्य : ₹ 275.00  
लेजर टाइपसेटिंग : अमन कम्प्यूटर, बेनीगंज, प्रयागराज  
मुद्रक : भगवती प्रिण्टर्स, प्रयागराज  
Coronium by Dr. Surendra Pal Singh



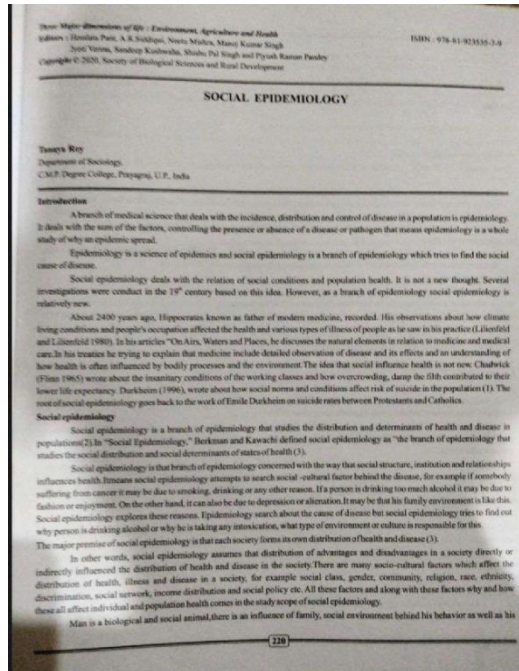
# चौधरी महादेव प्रसाद महाविद्यालय

## C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)  
 Under the Strengthening Component of DBT Star College Scheme  
 Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



S.N.	Content	Page No.
42.	IMPORTANCE OF SUPPLEMENTARY FOOD FOR INFANTS <i>Sangita Srivastava and Shikha Khare</i>	205-20
43.	VALUE ADDED PRODUCTS FROM KARONDA FRUIT <i>Neeraj Gupta and Arti Sharma</i>	208-211
44.	ALBINISM IN INDIA AND DISCRIMINATION BASED ON IT <i>Nidhi Ojha and Archana Pandey</i>	214-219
45.	<b>SOCIAL EPIDEMIOLOGY</b> <i>Tanaya Roy</i>	220-222
46.	FIRST AID <i>Archit Gupta</i>	223-232
47.	ONLINE EDUCATION CHALLENGES AND STRATEGIES DURING COVID-19 <i>Varsha Jaiswal</i>	223
48.	ENVIRONMENTAL ISSUES: LOCAL, REGIONAL AND GLOBAL ENVIRONMENTAL ISSUES <i>Hemlata Pant, Jyoti Verma and Shivani Sarya</i>	234-246
48.	ECOLOGICAL RESTORATION STRATEGIES AND MECHANISMS FOR NATURAL ... <i>Bipin Kumar and M. M. V. Baig</i>	247-253
49.	ON AN ACCOUNT OF MIRIDAE (INSECTA: HEMIPTERA: HETEROPTERA) ... <i>P. C. Saha, Sandeep Kushwaha, M. E. Hassan and Hemlata Pant</i>	254-258
50.	IMPACT OF SEWAGE SLUDGE APPLICATION ON SOIL MYCOFLORA - A REVIEW <i>Meenakshi Pandey, Swati Verma and Anil k Jaiswal</i>	259-265
51.	PLASTICULTURE: SCOPES AND CHALLENGES IN INDIA <i>Vishal Srivastava, Anjali Singhal and Pawan Kumar Jha</i>	266-269
52.	MARINE POLLUTION, SOURCES, EFFECT AND MANAGEMENT <i>Jyoti Verma, Hemlata Pant, Shilpi Sing and Aakita Tiwari</i>	270-276
53.	AN ACCOUNT OF MIRIDAE (INSECTA: HEMIPTERA: HETEROPTERA) ... <i>P. C. Saha, Sandeep Kushwaha, M. E. Hassan and Hemlata Pant</i>	277-280
54.	EFFECT OF PHARMACEUTICALS WASTEWATER ON ENVIRONMENT ... <i>Anushree Srivastava, Shivshree Kumar Azad, Kavita Singh, Kumar Saranjit Prasad</i>	281-284
55.	AN EFFECTIVE RECLAMATION STRATEGY OF FLY ASH VIA ITS UTILISATION ... <i>Harshita Dwivedi, Shefali Singh and Gajesh Kumar</i>	285-291
56.	TOXIC EFFECT OF PESTICIDES OF HEALTH AND ENVIRONMENT <i>Poojita Shukla and Gajesh Shukla</i>	292-297
57.	IMPACT OF COVID-19 LOCKDOWN ON WATER QUALITY OF INDIAN ... <i>Aakha Singh and Rakshande Jabbar</i>	298-304
58.	ENVIRONMENTAL ESTROGENS <i>Vandana Mathur</i>	305-306
59.	ROLE OF ENVIRONMENTAL STRESS ON YIELD OF CROP <i>Ashutosh Mishra</i>	307-308
60.	BIOSECURTY - UNDERSTANDING AND MANAGING THE MULTI DIMENSION OF LIFE <i>Vandana Mathur</i>	309-310



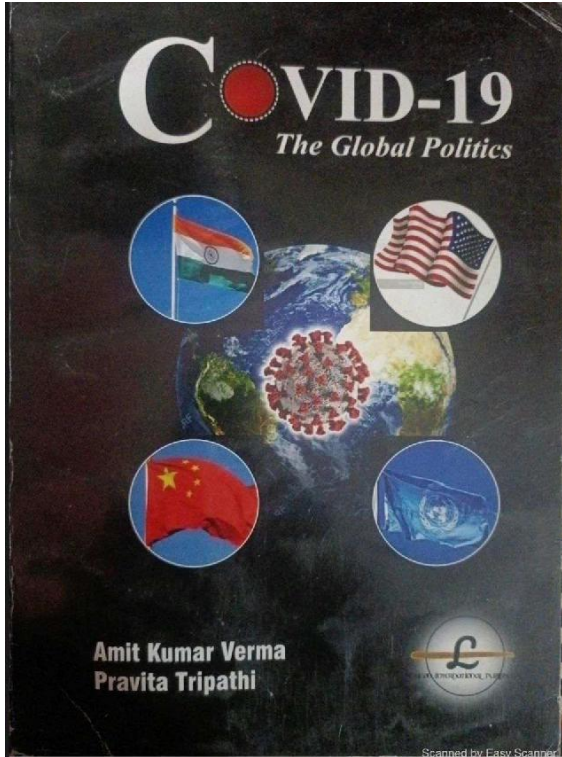


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Editors of the book

शिक्षाविद अमित कुमार वर्मा

गोल्ड मेडीलिस्ट शिक्षक श्री सम्मानित

फार्मसी विभाग, महात्मा ज्योतिबा फुले रोहिलखण्ड विश्वविद्यालय बरेली।

पिन कोड- 243006

शिक्षाविद प्रविता त्रिपाठी

डिपार्टमेंट ऑफ पॉलीटिकल साइंस

स्व. आर.एन.एस. डिग्री कालेज सारवा कानपुर, उ.प्र.(भारत)

ISBN: 978-81-949147-2-3

No part of this edited book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photo copying, recording, or by any information storage or retrieval system, without permission in writing from the copyright owners.

DISCLAIMER:

The contributors or authors of each edifying chapter are solely responsible for the content published in this edited book including plagiarism. The publisher and editors of the book do not take any responsibility for the same, in any manner. Errors, if any, are purely unintentional and readers are requested to communicate such errors to the editors or publisher to avoid discrepancies in future.

Published by

Lexicon International Publisher

Katra, Tilhar, Shahjahanpur (U.P)

Printed by

Hind Press, Bareilly (U.P)

Scanned by Easy Scanner

Chapter 13

## COVID-19: विश्व व्यापार संगठन पर वैश्विक प्रभाव

सार

विश्व व्यापार संगठन एक मात्र ऐसा अंतरराष्ट्रीय संगठन है। जो देशों के बीच वैश्विक नियमों को तय करता है। WTO दुनिया भर के देशों के लिए बनाए गए व्यापार नियमों को नियंत्रित करता है। इसके सदस्य देशों के बीच होने वाले विवादों का भी निपटारा करने का काम करता है। WTO दुनिया भर के देशों के अलावा बौद्धिक सम्पदा अधिकार के व्यापार को भी अपने कामों में शामिल करता है। WTO का मुख्यालय जेनेवा में है इसके कुल 164 सदस्य देश हैं। भारत WTO की संस्था सदस्य में एक रहा है। WTO की बैठकें आग लॉर पर हर साल होती हैं। इसकी बैठकों में सभी सदस्य देशों के सदस्य शामिल होते हैं। आज COVID-19 की महामारी के चलते दुनिया की परिस्थिति में इसकी सबसे ज्यादा जरूरत थी, क्योंकि इस महामारी का लक्षण उठाकर पूरी दुनिया में भ्रमजलीय करण विरेकी लाकले सक्रिय हो गई हैं। विश्व के बहुत से देशों का WTO जैसी बहुपक्षीय संस्थाओं से अपना विश्वास उठ रहा है, विश्व व्यापार संगठन की धारतए अटक गई हैं। इसके विवादों के निपटारे की भी व्यवस्था निर्जीव हो गई हैं। आज पूरी दुनिया में संरक्षणवादी व्यापारिक नीतियों को बढ़ावा दिया जा रहा है। इसी दौरान दुनिया की दो बड़ी आर्थिक शक्तियाँ चीन और अमेरिका के बीच तकनीकी व्यापार युद्ध चल रहा है। जिसके कारण उन नियमों को तोड़ पहुंच रही है। जो वैश्विक आर्थिक प्रशासन की धुरी रही हैं ऐसे माहौल में जो भी विश्व व्यापार संगठन का नया निर्देशक बनना है तो उसके लिए बड़ी चुनौती होगी। एक तरफ उसे इन चुनौतियों का सामना करने के लिए तैयार रहना होगा वहीं दूसरी तरफ खुद विश्व व्यापार संगठन की नीति का संरक्षण और प्रचार करने के लिए चुनौती भी होगी और विश्व के आर्थिक मामलों में विश्व व्यापार संगठन का प्रभुत्व मानवाना एक बड़ा चैलेंज होगा।

Scanned by Easy Scanner

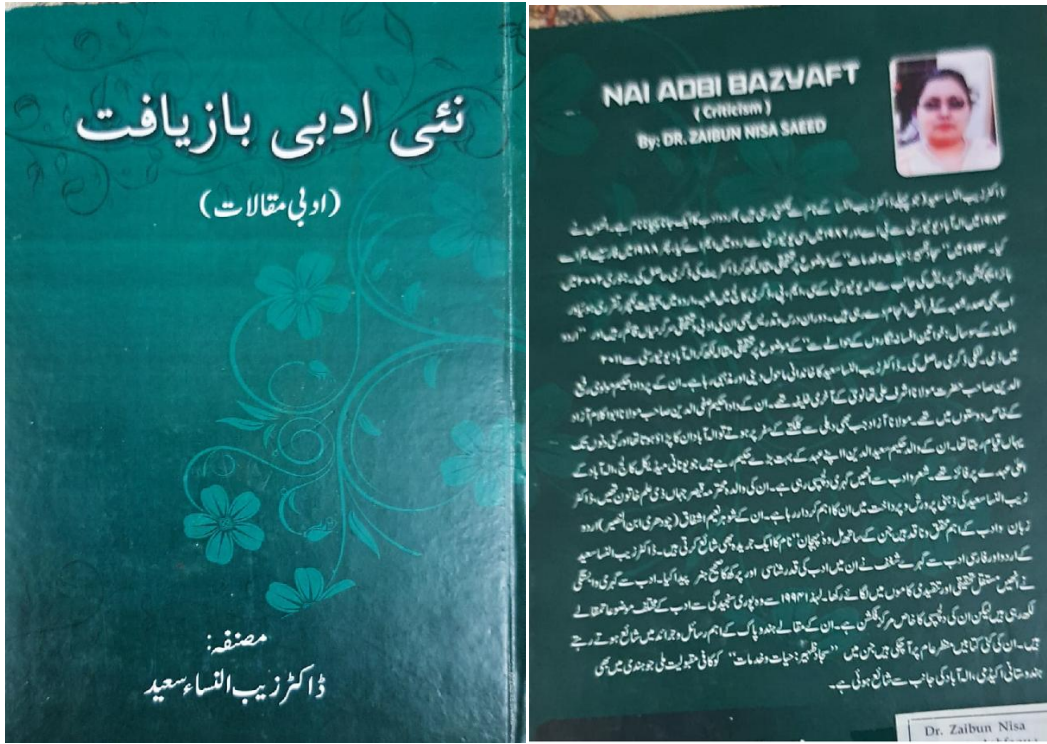


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



Dr. Zaibun Nisa Saheed





# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE


(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)




**URDU AFSANA AUR TANEESYAT**  
(Criticism)  
by: DR. ZAIBUN NISA SAEED




ڈاکٹر زبُن النسا سعید (جو پہلے ڈاکٹر زبُن انسا کے نام سے مشہور تھیں) اردو ادب کا ایک جاہلچاہے نام ہے۔ انہوں نے ۱۹۸۳ء میں ایل اے پی کے یونیورسٹی سے بی اے اور ۱۹۸۶ء میں اسی یونیورسٹی سے اردو میں ایم اے کیا۔ پھر ۱۹۸۸ء میں فارسی سے ایم اے کیا۔ ۱۹۹۳ء میں "سچا ڈھنڈھ" جہاں "تذات و نصیحت" کے موضوع پر تحقیقی مقالہ لکھ کر ڈاکٹریٹ کی ڈگری حاصل کی۔ جنوری ۲۰۰۲ء میں بائبلکوشن انٹرنیشنل کی جانب سے ایل اے پی کے سی ایم بی، ڈاکٹریٹ کا بی اے میں شہرہ راز دو میں حیثیت کچھ برقرار رکھی ہوئی اور اب بھی صدر خطیبہ کے فرائض انجام دے رہی ہیں۔ دورانِ درس و تدریس میں ان کی ادبی و تحقیقی سرگرمیاں قائم ہیں اور "اردو افسانہ کے مسائل"؛ "خواتین افسانہ نگاروں کے حوالے سے" کے موضوع پر تحقیقی مقالہ لکھ کر ایس اے پی کے یونیورسٹی سے ۲۰۱۱ء میں ڈی۔ لی و گری حاصل کی۔ ڈاکٹر زبُن النسا سعید کا خاندانی ماحول ادبی اور فنی رہا ہے۔ ان کے پرہیزگار و محکم ماحول میں ادب کی صاحبِ حریت مولا ناز شرف علی قاسمی قاسمی کے آفریںی طائفہ تھے۔ ان کے دادا اکبر علی الدین صاحب مولا ناز کا نام زاد کے خاص دوستوں میں تھے۔ مولا ناز آج بھی دہلی سے کلکتہ کے سفر پر ہوتے تو ایس اے پی کے اردو افسانہ نگاروں کی زندگی میں یوں قیام برپا رہتا تھا۔ ان کے والد شہید الدین ایسے عہد کے بہت بڑے حکم رہے ہیں جو ہندی میں نکلے جانے والے ادب کے اعلیٰ عہد سے پر ناگزیر تھے۔ شہرہ ادب سے اگلی گزری دلچسپی ہی ہے۔ ان کی والدہ محترمہ قیصرہ بی بی علیہا تو ان میں سے ڈاکٹر زبُن النسا سعید کی ذہنی پرورش و پرورش میں ان کا ہم کردار رہا ہے۔ ان کے شوہر مجرم اشفاق (چودھری ابن انیس) اردو زبان و ادب کے اہم محقق و نقاد ہیں جن کے ماحول و ماحول کا نام کمالیکہ جریدہ بھی شائع کرتی ہیں۔ ڈاکٹر زبُن النسا سعید کے اردو اور ہندی ادب سے گہرے شغف نے ان میں ادب کی قدر نشانی اور پرکھ کا سنجہ پیدا کیا۔ ادب سے گہری وابستگی کے نتیجے میں تحقیقی اور تنقیدی کاموں میں انہیں رکھنا سب سے پہلے ۱۹۹۱ء سے دوپہری تجزیہ کی سے ادب کے تنقیدی مضمون لکھنے لگے۔ انہوں نے لیکن ان کی دلچسپی کا خاص مرکز نقاشی ہے۔ ان کے مقالے ہندو پاپ کے اہم مہمان اور ان میں شائع ہوتے رہتے ہیں۔ ان کی کتابیں منظر عام پر آچکی ہیں جن میں "سچا ڈھنڈھ: حیات و تصانیف"؛ "کوئی فی حقیت میں جو ہندی میں کبھی ہندوستانی اکیڈمی، الہ آباد کی جانب سے شائع ہوئی ہے۔"

**London ki Ek Raat (Novel)**  
(Tanqeed o Takhliq)



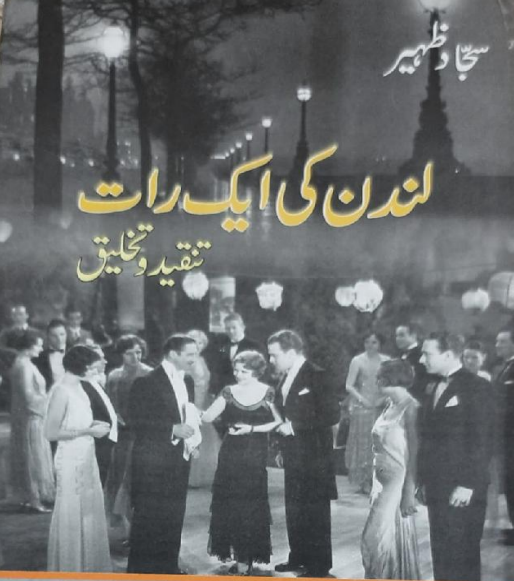
**Sajjad Zaheer**

**M. R. Publications**  
Printers, Publishers, Suppliers & Distributors of Literary Books  
# 10 Metropole Market, 2724-25 First Floor  
Kucha Chelan, Daryaganj, New Delhi-110002  
Cell: 09810784549, 09873156910 E-mail: abdu26@hotmail.com



سجاد ظہیر

**لندن کی ایک رات**  
تنقید و تخلیق



ترتیب: پروفیسر سید شفیق احمد اشرفی

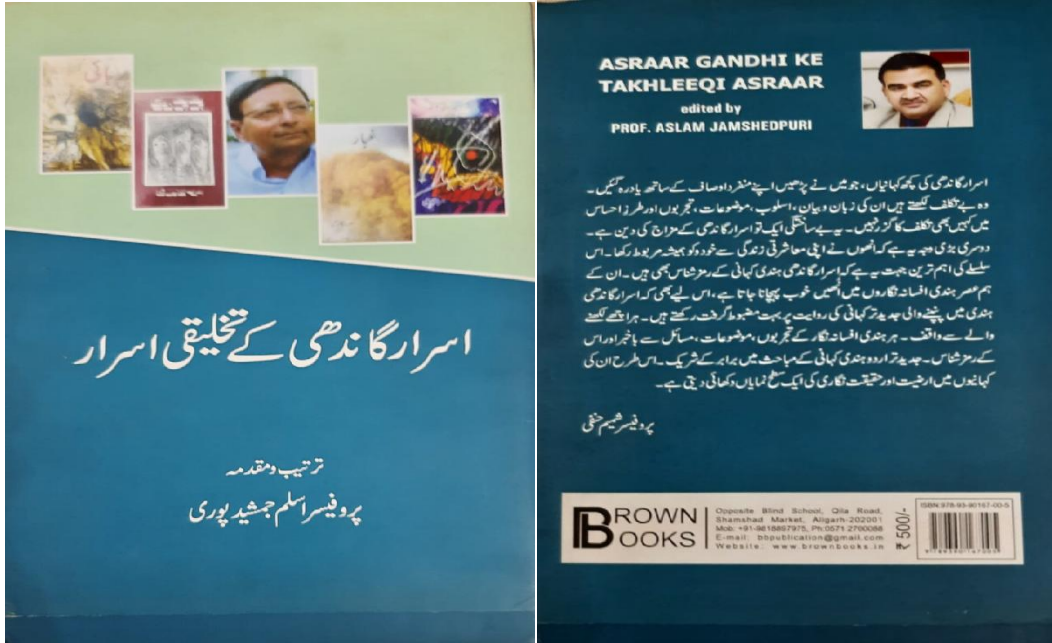
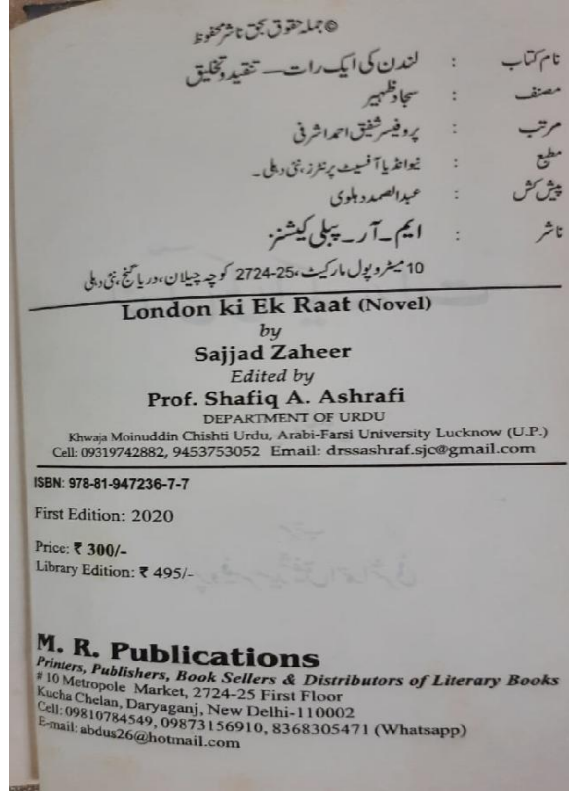


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)









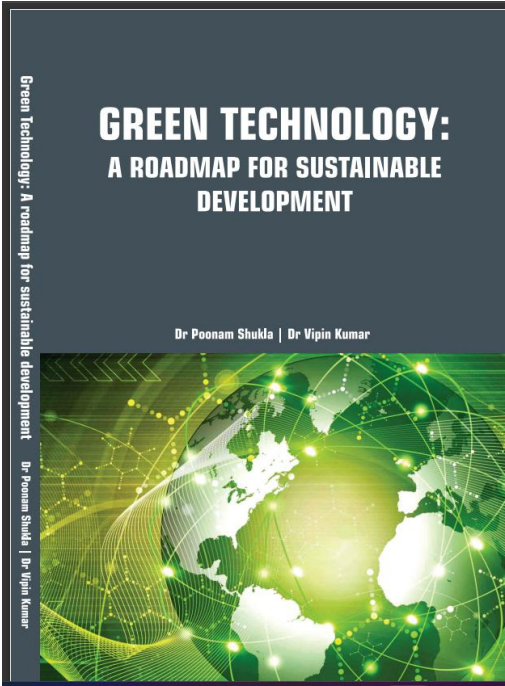


# चौधरी महादेव प्रसाद महाविद्यालय C. M. P. DEGREE COLLEGE

(A Constituent P.G. College, University of Allahabad)

Under the Strengthening Component of DBT Star College Scheme

Website: [www.cmpcollege.ac.in](http://www.cmpcollege.ac.in)



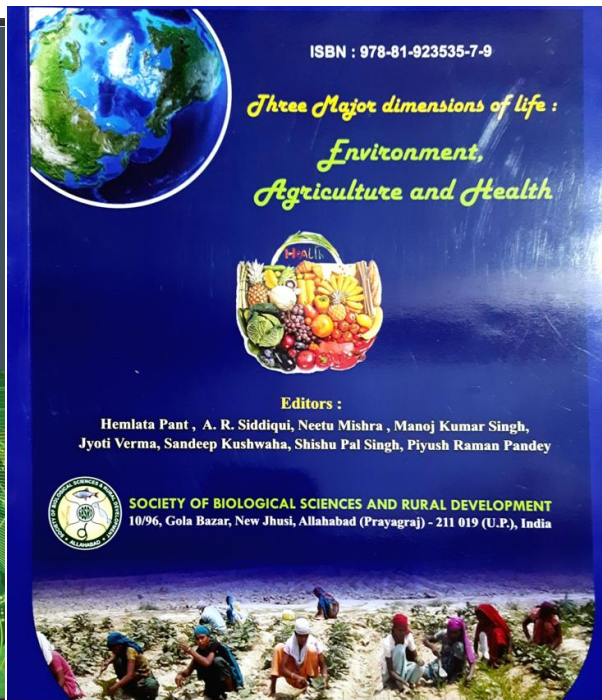
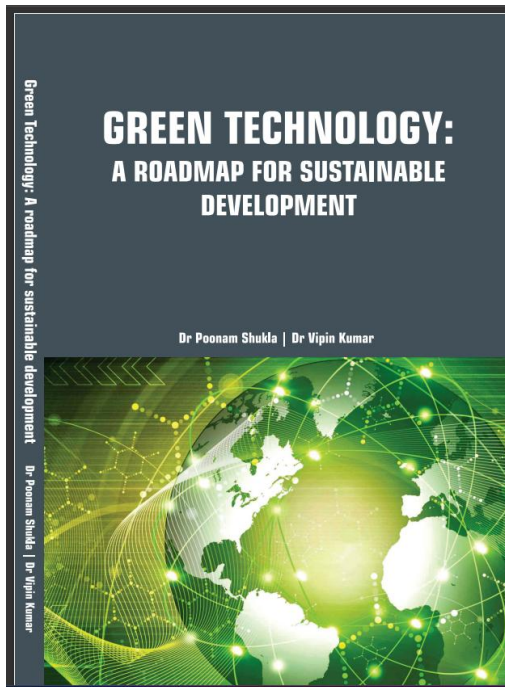
Green Technology: A Roadmap For Sustainable Development – 2020 ISBN No. : 978-81-951541-1-1 | I

## Application of Remote Sensing and GIS in Biodiversity Management

Hemlata Pant, Jyoti Verma and Shivani Surya  
Department of Zoology, CMP PG College, University of Allahabad  
Email address: [panthemlata@gmail.com](mailto:panthemlata@gmail.com)

### Abstract

Biodiversity is all the different kind of life you will find in one area the variety of animals, plants, fungi, and even microorganism like bacteria all that make up our natural world. Each of these species and organism work together in ecosystem, like an intricate web, to maintain balance and support life. The living organism one are here of great diversity, living in diverse habitats and possessing diverse qualities and are vital to human existence providing food, shelter, clothing, medicines etc. It have both the consumptive and non-consumptive value. Ecosystem services are the benefits provided by ecosystems. These includes provisioning services such as the regulation of climate, floods, disease, and water quality as well as west treatment, cultural services such as recreation aesthetic enjoyment, and spiritual fulfillment; and supporting services such as soil formation, pollination and nutrient cycling. Throughout the world, biodiversity is facing unparalleled threats caused by our untenable use of earth's natural resources. Progressively, we are realizing the finite capacity of our globe to absorb the consequences of our activities; ongoing degradation and loss of natural ecosystems and dependent species; overuse of resources; pollution of water, land and atmosphere; and modification in atmospheric composition leading to climate change with all its consequences. A unique approach is required, which will help to overcome all these issues without challenging the economic development. Technological advances, refined methodologies and growing databases have made our systems increasingly effective for monitoring biodiversity. In the recent decades, with increase in the number of earth observation satellites with better respectively, improvement in spectral bands, wide range of spatial resolutions and unprecedented number of remote sensing and GIS tools enable the management authority for proper management and conservation of biodiversity. The current paper addresses the importance of biodiversity for



ISBN : 978-81-923535-7-9

Three Major dimensions of life :  
*Environment,  
Agriculture and Health*



### Editors :

Hemlata Pant , A. R. Siddiqui, Neetu Mishra , Manoj Kumar Singh,  
Jyoti Verma, Sandeep Kushwaha, Shishu Pal Singh, Piyush Raman Pandey



**SOCIETY OF BIOLOGICAL SCIENCES AND RURAL DEVELOPMENT**  
10/96, Gola Bazar, New Jhusi, Allahabad (Prayagraj) - 211 019 (U.P.), India