# **Award Ceremony & International Web Conference**

# **COVID-19 Second Wave: Challenges for Sustainable Development (CCSD 2021)**

September 10<sup>th</sup>, 11<sup>th</sup> & 12<sup>th</sup>, 2021

Jointly organized by



Asian Biological Research Foundation (ABRF) Prayagraj (U.P.), India

http://www.abrf.org.in



Samrat Prithviraj Chauhan Government College Ajmer (Rajasthan)

https://hte.rajasthan.gov.in/college/gcajmer



Govt. KRG Post Graduate (Autonomous) College
Gwalior (M.P.)

http://krgcgwalior.org/



Estd. 1989

Govt. Degree College Doda (J.& K.)

https://www.gdcdoda.com/



Digambarrao Bindu Arts, Commerce & Science College Bhokar Dist. Nanded (Maharashtra)

https://www.dbcbhokar.in/



Darsh College of Education Gohana, Sonepat (Haryana)

http://www.darsh.edu.in/



Glocal Environment & Social Association (GESA)
New Delhi

http://www.gesa.org.in

# **IMPORTANT:**

- Platform: **Zoom app** and **YouTube**.
- PDF certificate will be sent through email to all registered participants.
- Conference Registration fee: Rs. 200 for Faculty/Academician/Scientist and Rs. 100 for Research Scholar.
- Free for PG students; Registration not required.
- E-abstract book will be provided.
- Registered at: https://forms.gle/8eyriEt1Nn3ANpdk7
- Timing: 4 pm to 7 pm on 10<sup>th</sup>, 11<sup>th</sup> & 12<sup>th</sup>, Sep. 2021
- Email id: iwcz2021@gmail.com
- Zoom app link: will be intimated later on
- YouTube link: will be intimated later on
- Contact person for awards: Mr Prabhakar Singh Ph. 9452662412
- Phone: 8299707543 (for general enquiry)

# Call for Book Chapters/manuscripts

Dear Researcher,

We are pleased to invite you and other esteemed colleagues to contribute a book chapter in the form of research papers, review articles, special notes, survey reports, etc. for our upcoming edited books entitled "COVID-19 Second Wave: Challenges for Sustainable Development" related to the sub themes of the conference. All Book chapters must be typed in A4 size (font size 12) in 1.5 space in single column with at least one-inch margin on all sides.

Publication fee is Rs. 500/- for Indian Authors & \$ 25 USD for other country's Authors. One hard copy of the edited book will be sent through speed post.

Pages should be within 5-10. Language of book publication: English.

Last date for MS Submission: 30-09-2021

Submission of Chapter/ Manuscript: **editor@irjse.in** Editors: **Dr A.K. Verma** and **Dr. Arvind Chavhan** 

Contact :+91- 9420775527

# **ABOUT THE CCSD 2021**

# **COVID-19 Second Wave: Challenges for Sustainable Development**

Dear Friends

The COVID-19 outbreak is a global financial and public health crisis. Socio economic growth has shown a steep drop during its first wave that become more severe during its second wave and is predicted to continue the same considerably in the near future to a great extent on a long-term basis, as gains in the tourism, aviation and extractive sectors, among others, are completely wiped out.

COVID-19 tells us that scientific cooperation is a key when dealing with global public health issues. The unavailability of testing kits and other Personal Protective Equipment (PPE), inadequate training of healthcare workers, lack of adequate facilities for the treatment of COVID-19 infected patients, are all factors that have unfortunately contributed to undermining the image and capacity of the scientific community to innovate and to meet the pressing needs at hand.

COVID-19 tells us that continued education must be ensured when so many children today cannot go to school. Education is one of the biggest casualties in fight against the pandemic all over the world especially in developing countries. The immediate and long term consequences of school closures will inevitably further exacerbate inequalities and disparities in the education sector.

The main aim of the present conference is a step forward to provide a platform for interaction and deliberations among scientists, researchers, academicians and policy makers from different parts of the country on such important aspects and issues about the COVID-19 pandemic second wave along with in-depth discussion/ possible challenges and solutions on sustainable development.

The conference will include following sub themes:

- Global pandemic second wave: its preparedness and response.
- Pandemic: An unprecedented global health and economic crisis.
- Delta variant: its transmissibility and prevention.
- Covid-19 and its implications on Global Economy and Environment.
- Challenges and Opportunities in education sector during pandemic period.
- Societal awareness and safety measures for combating Covid-19 effect during unlock period.
- Physical distancing and psychological impacts of Covid-19: Challenges and its response.
- Impact on Social life during Covid-19 pandemic second wave.
- Herbal immunity boosters: an eco-friendly approach to curb the SARS-CoV-2 infection.

- Possible solutions to the waste dumps created by Covid masks and PPE kits.
- Possible solutions to the shrinking market and industry revival post Covid-19.
- Healing of Earth and Ecosystem up-gradation during the COVID-19 Lockdown.
- Impact on small holding farmers/micro small and medium-sized enterprises.
- Waste and Resource Management in and after COVID-19 pandemic times.
- Climate change agenda and action in post COVID-19.
- Biodiversity Perspectives of Food, Health and Society.
- Agriculture, Animal Husbandry, Biodiversity and Social Sustainability.
- Role of Women and Tribes in pandemic and social sustainability
- Reskilling the workforce to emerge stronger from the Covid -19.
- Covid 19 and the challenges of online Learning.
- Covid 19 vis a vis opening of institutions.
- Covid-19 Vaccination: Myths and Facts.
- Any other relevant topics related with main theme

## **CALL FOR ABSTRACTS**

The organizing committee invites original research abstracts for oral/poster presentation based on the theme/subthemes mentioned here for the conference. Original one-page abstract (A4-size with 1.5 cm margin on all sides, single column, Times New Roman font, font size 12, 1.5 line spacing written in MS WORD) should be submitted at **iwcz2021@gmail.com** till **7**<sup>th</sup> **September 2021**. The esteemed participants are requested to mention clearly the title of the paper along with their names, affiliation, and contact details.

# **ABOUT THE ORGANIZERS**

# Asian Biological Research Foundation (ABRF), Prayagraj (Uttar Pradesh)

The ABRF Prayagraj, India is a self-supporting, academic and research associated body. It is basically non-profit and Non-Government Organization: (1) to provide a common platform for scientists associated with biological sciences to interact with one another for mutual benefit and to enhance the innovative knowledge on the subjects (2) to encourage, facilitate and perform the activities related to conservation of water, nature and biodiversity (3) to promote the new scientific knowledge that has emerged from recent advances and to felicitate the persons and organizations internationally for their outstanding services rendered in basic, applied and modern biological sciences including all branches of Botany, Zoology, Agriculture, Veterinary Science, Environmental Science, Molecular Biology, Biotechnology, Biochemistry, Bioinformatics, Microbiology, and so on. The ABRF confers following categories of awards and honours through search and nominations:

- 1. ABRF Lifetime Achievement Award (above 57 years of age)
- 2. Hon. Fellowship/Fellowship (FABRF)
- 3. ABRF Excellence Award for Environmental/Agricultural/Botanical/ Zoological Research
- 4. ABRF Global Recognition Award
- 5. Outstanding Extension Professional/Agriculture Scientist/ Social Services Award
- 6. Best Teacher Award for Agricultural/Botanical/Environmental/Zoological Innovations
- 7. Eminent Ichthyologist/ Environmentalist/ Ecologist/ Entomologist/ Geneticist/ Parasitologist/ Cytologist/ Taxonomist/ Plant Pathologist/ Physiologist/Biotechnologist/AnthropologistAward
- 8. Senior Botanist/ Zoologist/ Biochemist/ Scientist/ Environmentalist Award (above 45 years of age)
- 9. Innovative Botanist/Zoologist/Scientist/Environmentalist/Agriculture Scientist/Biotechnologist/Extension Professional Award
- 10. Innovative Biologist Award for Wild Life/ Biodiversity Conservation
- 11. Vigyan Ratna Puraskar (No age bar)
- 12. Paryavaran Shri Samman (No age bar)
- 13. Young Botanist/Zoologist/Scientist Award (below 30 years of age; mainly for research scholar)

Note: Only ABRF Life Members are eligible for applying these awards. ABRF life membership fee is Rs. 2,000/-. ABRF will confer only 10 awards during this CCSD 2021. Each award will consist of a multicoloured award certificate and a high quality memento. ABRF Award selection is strictly based on API and biodata both. Those who have received ABRF awards in 2021 are not eligible to apply. For detailed guidelines, please log on to website: http://www.abrf.org.in [email id: secretary.abrf@gmail.com]

# Samrat Prithviraj Chauhan Government College, Ajmer (Rajasthan)

SPCGCA was found in year 1836 by the Directors of the East India Company as a school to educate the children of the English officials & aristocratic families. This college was earlier affiliated to Allahabad University but later got changed to University of Agra in 1927. The affiliation again got changed to Maharshi Dayanand Saraswati University after it came to existence in 1987. The college lies over an area of 24.409 acres. SPCGCA is given A grade by NAAC. SPCGCA is located on Beawar Road Ajmer. Kishnangarh airport is nearest airport from institute which is 26 km away. The nearest Railway Station is 1.8 km away. NSS is Youth Programme established under the Ministry of Youth Affairs & Sports, Govt. of India. Students conduct International Yoga Day, Leprosy campaign, mass cleaning, mass tree plantation, Swach Bharat, Literacy campaign, Road traffic awareness, polio vaccine, disaster management & PFMS training. Ajmer is famous for International Pushkar Fair Pushkar & Dargah of Khwaja Mouinuddin Chishti.

# Govt. KRG Post Graduate (Autonomous) College Gwalior (M.P.)

To provide value education for academic enhancement of girls for sustainable society, Kamla Raja Girls College was established in 1937. It was elevated to PG level in 1970 and autonomous status was conferred on it in 1995. Standing with majestic grace in the heart of the city, the college is housed in one of the palaces of the erstwhile Scindia dynasty. It has an impressive historic main building alternated by lush green lawns, tall trees and blocks of various faculties constructed lately. It is a unique college of old and new architecture as well as picturesque natural beauty.

The college provides a great diversity in programme options. The UG and PG classes run in 26 and 23 subjects respectively in Arts, Science, Commerce and Home Science faculties. The college makes a continuous internal assessment of its students through written tests, seminars and symposia under the Autonomous Examination Scheme, followed by the final examination. The College has a rich library with 1.10 lacks books in the Central and Departmental libraries.

# Govt. Degree College Doda (J.& K.)

Govt. Degree College Doda is situated at Nagri area of District headquarter Doda at a height of 3500 feet from the sea level. Situated on the right side of the mighty river Chinab at a distance of 181 Km. from Jammu (the winter capital of J&K state), at a distance of 222 Km from Srinagar (the summer capital of J&K state) and at a distance of 65 Km from Batote, a town on Jammu – Srinagar National Highway. Degree College Doda has a total Campus area of 56 kanals 05 marlas and 7.5 Sarsaies in its ownership and possession. This area includes the area of road leading to it from the Doda – Ghat road.

Chronologically being third institution of higher learning in Doda District, Degree College Doda was established on 30.03.1989 vide Govt. Order No. 74-HE of 1989 dated: 17.03.1989. The College rendered its services to the students and the society from the building of Govt. Higher Secondary School (Boys) Doda, right from its establishment till 2001-02, when it got shifted to its own present campus.

This College started disseminating the education encompassing the moral values to the society through a total of 97 students enrolled in the1st batch of 1989-90 session in B.A. Part-I only. Right from the Ist session of 1989-90 to the session 2001-02, this College imparted education at undergraduate level in the Arts stream only. The said Arts stream comprised of the subjects viz., English, Political Science, Education, History, English Literature, Economics, Urdu, Hindi, Persian and Mathematics.

During the session 2001-02 the Science stream was also introduced in this college vide Govt. order No. 201-HE of 2001 dated 16.07.2001. The Science stream consists of four subjects namely Physics, Chemistry, Zoology and Botany. Another subject on classical language namely Arabic has been introduced from the session 2005-06. Sociology was introduced from the session 2008-09 and now BCA have also been introduced from session 2012-13. From this session computer application as its one subject is also being introduced.

# Digambarrao Bindu ASC College, Bhokar Dist. Nanded (Maharashtra)

Late Digambarrao Bindu Smarak Samiti's Digambarrao Bindu ACS College, Bhokar was established in 1989 by our visionary founding father freedom fighter and social worker honourable late **Bhujangrao Patil Kinhalkar**. He named it by the name of his ideal and colleague senior freedom fighter late **Digambarrao Bindu**. Since then the college is operating with high ideals and imparting quality education. The college has played a key role in spreading education in the rural and backward surroundings. Under the leadership of our present president honorable **Dr. Madhavrao Patil Kinhalkar** (former Minister of the state of Maharashtra) the college has progressed considerably in both infrastructure related and academic aspects. His experience as an administrator and his developmental vision has been the source of inspiration for us. Our vision is to provide value based education and generate human resources equipped with advanced skills. Our mission is to make the students aware about the career opportunities available through the programs offered, to refine personalities of students with positive approach, to reach to students in the area who are eligible but deprived of Higher Education, to create environmental and social awareness by giving exposure to students with various activities. The goal is to provide quality education by offering skill based courses.

In 2013-14 we added science faculty to the previous arts and commerce faculties. Now we also run P. G. department in commerce. We also have Buddha Study Centre, Nehru Study Centre, Gandhi Study Centre. We have run several vocational courses under various UGC schemes from time to time. Besides the curricular activities, the college has always participated actively in various co-curricular, extra-curricular, and sports activities. We have a well equipped sports department with indoor and outdoor games facilities. The SRTM University, Nanded has awarded best magazine prizes to the annual magazine of the college 'Vedan' every year since 2009. The government of Maharashtra has awarded a cash prize of Two Lakh rupees to the college for contribution of our NSS department in BEST practices for women empowerment under the Maharashtra government campaign 'Jagar Janivancha' in 2013-14. The college was re-accredited with 'B' grade by NAAC in 2016. We have been honoured by the Best Principal Award by the SRTM University in the year 2017-18. IN 2018-19 the prestigious Best College Award was given to the college by the SRTM University.

The college has always encouraged research and quality enhancement of the faculties and students. Most of our faculties have research experience, We have successfully organized several University level online workshops, UGC sponsored online national, international level seminars, conferences, faculty development program and several webinars successfully during this Covid situation.

# Darsh College of Education, Gohana, Sonepat (Haryana)

Darsh College of Education initially known as Darsh Institute Gohana is run by Darsh Education and Welfare Society Rohtak, Haryana. The Society moved an application to The Department of Higher Education, Chandigarh Haryana and has been received permission/NOC for setting up Darsh College of Education at Village Kailana Tehsil Gohana, Sonepat, Haryana, dated 23-12-2005 to provide different courses of teacher education from the session 2006-07. At present college is running B.Ed, M.Ed and D.El.Ed.

The college has well equipped library which has access of internet, more than ten thousand books, journals, magazines and newspapers. The college has Psychology, Computer, Mathematics, Social Science, Language and Art and Craft Laboratories and the college has also sports facilities with sufficient play-ground.

## Glocal Environment & Social Association (GESA), New Delhi

In order to serve a bit the Nature and Society for better future, the Glocal Environment & Social Association (GESA) is constituted. Its headquarter is located in New Delhi. Its main aim is to develop and promote 'global thought and local action' ideology to save the nature. It organizes the seminars; workshops etc. to aware and educate the people on blazing environmental and social issues. The GESA felicitates the persons and organizations for their outstanding services rendered in various fields of agriculture, arts, biodiversity conservation, commerce, culture, education, environment, healthcare, humanities, literature, mass communication, music, patriotism, peace and harmony, science, sports, technological innovations and other social services. The GESA will confer following categories of awards and honours to its members during this second annual session:

- 1. Life Time Achievement Award (Above 55 years of age)
- 2. Hon. Fellowship/Fellowship (FGESA)
- 3. Dr. APJ Abdul Kalam Green Environment Promotion Award
- 4. Dr. Sarvepalli Radhakrishnan Education Promotion Award
- 5. Chaudhary Charan Singh Award for Agricultural Innovations
- 6. Sardar Patel Glocal Award for Social Awareness
- 7. Lal Bahadur Shastri Glocal Award for Biodiversity
- 8. Senior Scientist Award (Above 40 years of age)
- 9. Best Faculty Award for Teaching/Research/Innovations
- 10. Distinguished Service Award / Distinguished Teacher Award (Crop, Plant Protection, Horticulture, Fisheries, Home Science, Social Science, Animal Science, Life Science etc.)
- 11. Innovative Educationist Award/Agriculture Extensionist Award
- 12. Teacher of the Year / Extension Professional of the Year / Doctor of the Year Award
- 13. Technological Innovations Award
- 14. Paryavaran Ratna Puraskar
- 15. Vigyan Bhushan Puraskar
- 16. Sahitya Shri Samman
- 17. Young Scientist/Young Researcher Award (Below 35 years of age)

**Note:** Life Membership of GESA is mandatory for above awards, which is Rs.5000/-. Each awardee will receive a multicoloured award certificate and a high quality memento. GESA Award selection is mainly based on biodata. Those who have received GESA awards in 2021 are not eligible to apply. For detailed guidelines, please log on to website: http://www.gesa.org.in [Email id: president.gesa@gmail.com]

# **International Web Conference COVID-19 Second Wave:**

# Challenges for Sustainable Development (CCSD 2021)

#### **ORGANIZING COMMITTEE**

# Chief Patrons

**Prof. SN Labh**, Tribhuvan University, Kathmandu (Nepal) and Patron, ABRF Prayagraj, India **Dr. Madhavrao Patil Kinhalkar** President, Digambarrao Bindu Smarak Samiti's, Bhokar, MS, India

#### **Patrons**

Dr. S. K. Upadhyay Principal, Samrat Prithviraj Chauhan Government College, Ajmer

Dr. M.R. Kaushal Principal, Govt. KRG PG (Autonomous) College, Gwalior

Dr Shafqat Hussain Rafiqui Principal, Govt. Degree College, Doda

Dr. Panjab A. Chavan Principal, Digambarrao Bindu ACS College, Bhokar, Dist. Nanded

Dr Prem Sunder Principal, Darsh College of Education, Gohana, Sonepat

# Chairpersons

Prof. R.C. Mishra, Vice Chancellor, Mahakaushal University, Jabalpur (MP)

Prof. Ashish K. Panigrahi, Pro Vice Chancellor, The University of Burdwan (WB)

Prof. Bechan Sharma, Head, Department of Biochemistry, University of Allahabad

Prof. Sanjay Swarnkar, Academic Secretary, Govt. PG (Autonomous) College, Gwalior

Prof. Nand Lal Yadav, Head, Department of Life Sciences, CSJM University, Kanpur

Prof. Kamal Jaiswal, Head, Department of Zoology, BBA Central University, Lucknow

# Co-Chairpersons

Prof Vineeta Shukla, Head, Department of Zoology, MD University, Rohtak (Haryana)

Prof. Vandana Rai, Head, Biotechnology, VBS Purvanchal University, Jaunpur (U.P.)

Mrs. Babita L. Kayastha, President, Women in Science and Humanities, Nepal

Dr. VC Srivastava, President, Asian Biological Research Foundation (ABRF)

Dr. Sheo Kumar, Scientist 'E', Botanic Garden of Indian Republic BSI, MOEF & CC, Govt. of India, Noida

Dr. Sachin Tiwari, Dean Research, Swami Vivekanand University, Sagar (M.P.)

Dr. Sidhhartha K. Mishra, Department of Life Sciences, CSJM University, Kanpur

Dr. A.K. Pandey, Principal Scientist ICAR-NBFGR Lucknow

# Conference Director (CCSD 2021)

Dr AK Verma

#### **Coordinators**

Dr Sangeeta Avasthi, Kanpur

Dr Sandeep Kumar, Hisar

Dr Wahied K. Balwan, Doda

**Dr Nitin G. Shinde**, Ahmednagar

Dr Nazia Rassol, Jammu

#### **Conveners**

Prof. Madhu Laxmi Sharma, Govt. KRG PG College Gwalior ph.: 8989476777

Dr Rashmi Sharma, Samrat Prithviraj Chauhan Govt. College, Ajmer ph.: 89495 93913

Dr. Arvind B. Chavhan, Digambarrao Bindu ACS College, Bhokar, Nanded ph.: 94207 75527

Dr Ajaz A. Wani, Govt. Degree College, Doda ph.: 97975 88390

Dr Sandeep Kumar, Darsh College of Education, Sonepat ph.: 9729499099

## Joint Conveners

Dr. Vinod K. Chaudhary, Environment Science, Dr RML Avadh University, Ayodhya

Dr. Sanjay S. Nanware, Department of Zoology, Yeshwant Mahavidyalaya, Nanded

Dr. Menka Verma, General Secretary, GESA

Mr. Prabhakar Singh, Treasurer, GESA

#### Co-Conveners

Dr. Preeti Kulshrestha (Gwalior)

**Dr. Shaikh Yashmeen** (Aurangabad)

**Dr. Sachin Tawade** (Nanded)

**Dr. Eshita Pandey** (Kanpur)

Dr. Sushil K. Upadhyay (Ambala)

Dr. Girijesh Shukla (Prayagraj)

# **Organizing Secretaries**

Dr Sunita Arya, ph.:6386155616 GESA (http://www.gesa.org.in)

Dr Sadguru Prakash, ph.: 9415681514 ABRF (http://www.abrf.org.in)

# Joint-Organizing Secretaries

Dr. A.N. Shukla (Kolkata)

Dr. Rahul Patel (Prayagraj)

Dr. Neelam Saba (Doda)

Dr. Aparna Pareekh (Jaipur)

Dr. R.S. Tomer (Jhansi)

Dr. J.V. Balkhande (Nanded)

# Co-Organizing Secretaries

Dr. Arjun Shukla (Jabalpur)

Dr. Shankar Prasad Sha (Darjeeling)

Dr. Rachana Gangwar (Lucknow)

**Dr. Brijesh K. Mishra** (Prayagraj)

**Dr. Sippy Singh** (Prayagraj)

**Dr. Shubhra Malviya** (Prayagraj)

Dr. Dev Brat Mishra (Jaunpur),

# **Technical Coordinator:**

Mr Kshitij Verma

# Conference Galaxy

Prof. V. S. Shembekar Prof. U. V. Kiran Prof. Sadhana Singh Prof. M. D. Gupta Prof. R. C. Tripathi Prof. Varsha Gupta Prof. R. C. Upadhyay Dr Pratibha Yadav Dr Daisy Rani Prof. Shilpi Verma Prof. Lalima Singh Prof. Gyan Prakash Verma

Prof. Maqdoom Farooqui

Prof. Babu Ram
Prof. H. K. Agrawal
Dr Sumit Kotwal
Dr Ashok Kumar
Mr Imteyaz Ahmed
Dr Kirti Ghatani

# Advisory Board

Dr Munish Kumar

Prof. S. H. Nile (China), Prof. Alexis R. Rague (Spain), Prof. D.K. Jha (Nepal), Dr O.P. Singh (Nepal), Dr Prabha Chitrakar (Nepal), Dr Archana Prasad (Nepal), Dr BK Chakraborty (Bangladesh), Dr Anil Verma (USA), Dr. Gloria D. Tuzon (Philippines), Mr A.K. Douglass (Swedon), Dr. Shailendra Singh (West Africa), Dr Vivek Tiwari (UAE), Dr. B. C. Mohapatra (Bhubaneswar), Prof. Bibha Chetia Borah (Assam), Prof. Ajit K Saxena (Patna), Prof. G.S. Singh (Varanasi), Prof. Rajendra Singh (Gorakhpur), Prof. Riaz Ahmad (Aligarh), Prof. Shailendra K. Verma, Dr. Neelam Yadav and Deepika Verma (Ayodhya), Dr. Pratibha Gupta (Howarh), Dr. Anu P. Vankara (YSR, A.P.), Dr. K.G. Patil and Dr. S.S. Pawar (Amravati), Prof. Pradeep Jabde (Aurangabad), Prof. Abhijit Joshi (Pune), Prof. R.C. Tripathi (Chitrakoot), Dr. Krishna Singh and Dr. Poorti Pandey (Gwalior), Dr. Soma Bhattacharjee (W.B.), Dr. Ajay K. Singh (Jaipur), Dr. G.N. Jha and Dr. Amit Singh Charak (Doda), Dr. Kranti Thakur (Solan, HP), Prof V. D. Mudgal (Udaipur), Dr. Rajesh Kumar (Puduchery), Mr. Sanjeev Kumar (Hazaribagh), Dr. S. Prakash, Dr. Pawan K Jha and Dr. Durgesh Singh (Prayagraj), Dr. Alok Sagar Gautam (Dehradun), Dr. Deeksha Dave (New Delhi), Dr. Vijay K Umrao (Meerut), Dr. Dinesh Kumar (Champa, CG), Dr. Vivek Sahu (Port Blair), Dr. Prasenjit Hazra (Koderma, Jharkhand), Prof M. A. Khalid, Dr. Kanchan Srivastav, Dr. Deepak K. Srivastav and Dr. Ravi Shankar Verma (Lucknow), Dr. Sushmita Srivastav (Basti), Dr. Pradeep Kumar (Gorakhpur), Dr. Avanish K Singh (Mau), Dr. Dev Brat Mishra (Jaunpur), Dr. Hemlata Saini (Anand, Gujrat), Dr. Rajiv Ranjan (Balrampur), Dr. M.P. Singh (Firozabad), Dr Bharat Singh (Gurugram), Dr. Sunita Verma (Kanpur), Dr. A.K. Srivastav, Dr. Sandeep Arya, Dr. Amit Pal (Jhansi), Dr. R.K. Pandey and Dr. S.P. Mishra (Sultanpur), Dr. Neelam Bajpai (Kaushambi), Dr. Sunita Rawat (Unnao), **Dr. Sakshi Walker** (Agra).

#### **Publication Partners**

- Dezine Hut, Jasola, New Delhi
- International Research Journal of Science and Engineering
- International Journal of Biological Innovations

## **Bank Details for Registration**

Submit the registration fee in following account:

Name of Beneficiary: Dezine Hut

Bank Name & Branch: Punjab and Sind Bank

**M-18, Kalkaji, New Delhi–110 019.** Account Number: **06121100095598** 

IFSC: **PSIB0020948** Phone: **9811238475** 

Email Id: iwcz2021@gmail.com







9811238475

DOI: 10.46505/IJBI IMPACT FACTOR: 4.147

E-ISSN: 2582-1032

## A PEER REVIEWED & REFEREED JOURNAL

Volume 3, Issue 1, June 2021

# INTERNATIONAL JOURNAL OF BIOLOGICAL INNOVATIONS



#### GLOCAL ENVIRONMENT & SOCIAL ASSOCIATION (GESA)

Editorial office: 14E/4A JLN Road Tagore Town, Prayagraj (U.P.), India Website: http://ijbi.org.in/ | E-mail: chiefeditor.ijbi@gmail.com

# Dr A. K. Verma

M.Sc. (Gold Medalist), Ph.D.,D.Sc. (honoris causa),

F.S.L.Sc.,F.I.S.C.A.,F.A.Z.R.A.,F.B.P.S., F.Z.S.I.,F.I.A.Z.R., F.I.F.E.E., F.I.B.R.F., F.S.F.S.N., F.N.S.F., F.E.S.W., F.I.A.S.R.,F.G.E.S.A.,F.A.B.R.F.,F.N.A.S.

(Recipient of SARASWATI SAMMAN 2017 of U.P. Govt.)

Editor in Chief

#### **International Journal of Biological Innovations (IJBI)**

Website: http://ijbi.org.in/index.php

Ph.:09919835838 Email: chiefeditor.ijbi@gmail.com **ORCID ID:** https://orcid.org/0000-0002-5683-5969

Google Scholar (more than 1,325 citations):

https://scholar.google.com/citations?user=9GXzXjoAAAAJ&hl=en&authuser=2