

International Conference

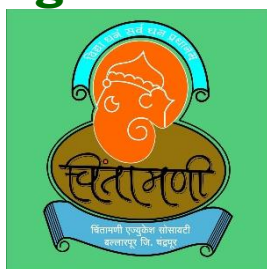
on

**“BASIC SCIENCES: GLOBAL CHALLENGES AND
SOLUTIONS FOR SUSTAINABLE DEVELOPMENT”**

GCSSD-2K23

13TH-14TH October 2023

Organized by:



**Chintamani Education Society, Ballarpur's
CHINTAMANI COLLEGE OF SCIENCE, POMBHURNA,
DIST. CHANDRAPUR, M.S. 442918**

In Collaboration With



Gondwana University, Gadchiroli

Commitment to Quality in Education



In association with: Conference World



**International Conference
on**

**“BASIC SCIENCES: GLOBAL CHALLENGES AND SOLUTIONS
FOR SUSTAINABLE DEVELOPMENT”**

GCSSD-2K23

Editors

DR. RAJIV G.WEGINWAR

DR. ANIL CHITADE

DR. SUDHIR S. HUNGE

DR. ANANT S. DESPANDE

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Preface

Conference World and AR Research Publication is fast growing group of academicians in Engineering, Sciences and Management. AR Research Publication is also known for fast reply and zero error work. Conference world has organized a various conferences at renowned places namely Delhi University; New Delhi, Jawaharlal Nehru University; New Delhi, PHD Chamber of Commerce and Industry New Delhi, YMCA New Delhi, India, International Centre New Delhi, Sri Venkateswara college of Engineering and Technology, Andhra Pradesh, Dhananjay Mahadik Group of Institutions (BIMAT), Shivaji University, Maharashtra, Vedant Engineering Kota and many more places across the country.

We are very pleased to introduce the proceedings of the International Level Conference on “BASIC SCIENCES: GLOBAL CHALLENGES AND SOLUTIONS FOR SUSTAINABLE DEVELOPMENT, GCSSD-2K23. The Recent Innovations & Development in field of Science and Technology were addressed by the papers presented at the conference. The level of Interest in the subject matter of the conference was maintained from previous events and over 40 suitable papers were submitted for presentation at the conference

Papers were well represented in the conference to arouse a high level of international interest. Three countries were represented in the final program from Europe, North America and Asia. In the event, the conference was highly successful. The presented papers maintained the high promise suggested by the written abstracts and the program was chaired in a professional and efficient way by the session chairmen who were selected for their international standing in the subject. The number of delegates was also highly gratifying, showing the high level of international interest in the subject. This is also indicated by the large number of countries, 02 represented by the delegates. This Proceeding provides the permanent record of what was presented. They indicate the state of development at the time of writing of all aspects of this important topic and will be invaluable to all workers in the field for that reason. Finally, it is appropriate that we record our thanks to our fellow members of the Technical Organizing Committee for encouraging participation from those areas. We are also indebted to those who served as chairmen, without their support, the conference could not have been the success that it was. We also acknowledge the authors themselves, without whose expert input there would have been no conference. Their efforts made a great contribution to its success.

About the Conference

International Conference on “BASIC SCIENCES: GLOBAL CHALLENGES AND SOLUTIONS FOR SUSTAINABLE DEVELOPMENT, GCSSD-2K23 is to bring together leading researchers, engineers, doctors and scientists in the domain of interest from India. We warmly welcome previous & prospected author to submit your new research papers to GCSSD-2023 and share the valuable experiences with the scientist and scholars. All full paper submissions will be peer reviewed and evaluated based on novelty, technical and/or research content, relevance with the theme and contributions. All Papers will be published in conference proceedings with ISBN number. Selected Papers will be published in Scopus Indexed Journal and UGC Care listed Journal.

About College

The Chintamani College of Science, located in Pombhurna, Chandarpur District, and overseen by the Chintamani Education Society in Ballarpur, was founded in 2008 under the inspiration of Late Shri. Vasantrao L. Dontulwar. Its primary objective is to promote and enhance the foundations of basic science education in rural and tribal areas. Affiliated with Gondwana University, Gadchiroli, the college has earned a 'B' Grade accreditation from NAAC with a CGPA of 2.36. Offering undergraduate and postgraduate programs in the field of science and technology, the institution is committed to excellence in education. Its extensive campus, well-maintained premises, spacious playground, and a library with an extensive book collection contribute to this goal. The college has a track record of student achievements in sports and cultural events at both the university and national levels. With a highly qualified staff, modern audio-visual facilities, a dedicated student facilities center, science laboratories, and a well-equipped computer lab, the college is well-prepared to achieve its mission. It also operates various committees like the Internal Quality Assurance Cell, Career Guidance Cell, Women's Cell, Science Education Society, Alumni Association, and National Social Services to further its mission.

Conference Highlights

1. All the accepted papers will be published in the international journals having ISSN & Impact factor.
2. Every author will get two certificates, one for paper publication in Journal other for paper presentation in conference.
3. All the papers of the conference will be published in the conference proceeding with ISBN.
4. All accepted papers will be indexed in Google scholar & IDIIF.

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Message

*Shri. Swapnil V. Dontulwar,
Secretary, Chintamani Education Society, Ballarpur*

It gives me immense pleasure to note that the two Days International Conference will be held on the “ **Basics Science : GLOBAL CHALLENGES AND SOLUTIONS FOR SUSTAINABLE DEVELOPMENT, GCSSD-2K23**” on Oct 13-14th, 2023. I am confident that the international conference will bring together a kaleidoscope of vibrant ideas and healthy deliberations on a single platform in a fast changing scenario.

I extend my best wishes to all participants, invited delegates, speakers and hope that GCSSD-2K23 would be a grand success. I intend to take this event ahead as an annual feature, the motive not only is to generate discussions around contemporary issues, but also to propel the culture of academic exchange, which is the only way to achieve excellence in this field.

I congratulate the Institute for organizing the International Conference and wish the programme a grand success.

Wishing you all the Best.

SHRI. SWAPNIL V. DONTULWAR
Secretary, Chintamani Education Society, Ballarpur



Message

*Dr. Prakash Bokare
Hon'ble Vice Chancellor
Gondwana University, Gadchiroli*

It is a matter of proud privilege to associate with the two Days International Conference on “**Basics Science : GLOBAL CHALLENGES AND SOLUTIONS FOR SUSTAINABLE DEVELOPMENT, GCSSD-2023**” which will be organized by Chintamani College of Science, Pombhurna, Dist Chandrapur (M.S.) on 13th-14th Oct. 2023. Gondwana University, Gadchiroli gives the platform for innovative ideas of this region to come together through seminar or conference and to serve as a link between academicians and policy makers as well as corporate administrators of the region and the national and international community.

I extend my best wishes to all participants, invited delegates, speakers and hope that GCSSD-2023 would be a grand success. I intend to take this event ahead as an annual feature. The motive not only is to generate discussions around contemporary research issues, but also to propel the culture of academic exchange, which is the only way to achieve excellence in the field of Research.

I congratulate the Institute for organizing the International Conference and be the part of this Mega Event.

Wish you all the Best for the Grand Success of This Mega Event.

Dr. PRASHANT BOKARE
Hon'ble Vice Chancellor,
Gondwana University, gadchiroli



Message

Dr. Anil Z. Chitade

*Dean Faculty of Science & Technology
Gondwana University, Gadchiroli*

It is indeed a matter of great pleasure that “**Basics Science : GLOBAL CHALLENGES AND SOLUTIONS FOR SUSTAINABLE DEVELOPMENT, GCSSD-2K23**” a two days International conference is going to be held on Oct 13th -14th , 2023 at Chintamani College of Science, Pombhurna Dist. Chandrapur. These kinds of events are a righteous endeavor to streamline and enrich the thought process of all the delegates and participants.

The theme of the International conference is quite contemporary and covering various issues of this topic. The organization of such kind of activities provides ample opportunities to share the wisdom and to generate the views regarding these social issues.

It gives me added pleasure to know that a souvenir is also being brought out on this occasion. I extend my heartiest wishes to Chintamani College of Science, Pombhurna Dist Chandrapur for a grand success of this academic event.

Wishing all the best to all organizers, delegates as well as all the students for the grand success of this Mega Event.

Dr. Anil Chitade

**Dean Faculty of Science & Technology
Gondwana University, Gadchiroli**



Message

*Dr. Rajiv G. Weginwar
Principal & Convener*

Chintamani College of Science, Pombhurna, Dist. Chandrapur

It is with a sense of delight that *Chintamani College of Science, Pombhurna, Dist. Chandrapur* is organizing a Two Days International Conference on the theme “**Basics Science : GLOBAL CHALLENGES AND SOLUTIONS FOR SUSTAINABLE DEVELOPMENT GCSSD-2K23**” on Oct. 13th- 14th, 2023. The world is changing very fast. The current researches, constant adaptation and change had made the society growing in new technology. This degree of volatility and change requires thoughtful designs, rigorous planning and diligent oversight to manage the fruitful growth and development of society. In today’s era, research in Education, Engineering, Science, Commerce, and Management has made the society highly advanced and sophisticated.

This Conference will provide a new platform for leading academicians, researchers, practitioners and students to interact and share as well as exchange their valuable experiences. I am confident that the International Conference would be a useful platform for exchange of ideas and best practices and will benefit the society.

I personally express my sincere gratitude to my kind hearted Management, all coordinators, my colleagues as well my sincere students for their Hard Work, Dedication as well devotion to make this Mega Event a Grand Success.

*Dr. Rajiv G. Weginwar
Principal & Convener*

Chintamani College of Science, Pombhurna, Dist. Chandrapur



Message

Dr. Anant S. Deshpande
Organizing Secretary & IQAC Coordinator
Chintamani College of Science,
Pombhurna Dist. Chandrapur

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I congratulate the Institute for organizing the International Conference and wish the programme a grand success.

Wishing you all the Best.

Dr. Anant S. Deshpande
Organizing Secretary & IQAC Coordinator
Chintamani College of Science, Pombhurna Dist. Chandrapur



Message

Dr. Sudhir S. Hunge
Co-Convener & Head Deptt. of Chemistry
Chintamani College Of Science,
Pommbhurna Dist Chandrapur

It gives me immense pleasure to note that the two Days International Conference will be held on the “**Basics Science : GLOBAL CHALLENGES AND SOLUTIONS FOR SUSTAINABLE DEVELOPMENT GCSSD-2K23**” on Oct 13th- 14th, 2023. I am confident that the International Conference will bring together a kaleidoscope of vibrant ideas and healthy deliberations on a single platform in a fast changing scenario.

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Wishing you all the Best.

Dr. Sudhir S. Hunge
Co-Convener & Head Deptt. of Chemistry
Chintamani College Of Science,
Pommbhurna Dist Chandrapur



Message

*Ms. Reshu Gupta,
CEO Conference World*

It gives me immense pleasure to note that the two Days International Conference will be held on the “**Basics Science : GLOBAL CHALLENGES AND SOLUTIONS FOR SUSTAINABLE DEVELOPMENT GCSSD-2K23**” on Oct 13th- 14th, 2023. I am confident that the International Conference will bring together a kaleidoscope of vibrant ideas and healthy deliberations on a single platform in a fast changing scenario.

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Wishing you all the Best.

Ms. Reshu Gupta,
CEO Conference World

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International Conference on “**Basics Science : GLOBAL CHALLENGES AND SOLUTIONS FOR SUSTAINABLE DEVELOPMENT GCSSD-2K23**” on Oct 13th- 14th, 2023 organized at **Chintmanai College of Science, Pombhurna Dist Chandrapur (M.S.) India** in collaboration Gondwana University, Gadchiroli in association with conference world in Hybrid Mode on 13th – 14th Oct. 2023. Total 65 papers were received for the conference and 40 papers were shortlisted by the committee.

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Managing Director: Gauri Sharma

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