International Conference on Fundamental and Applied Sciences (ICFAS 2021)

Organized by
Faculty of Science in collaboration with IQAC

24th March to 26th March, 2021

Registration Form link: https://forms.gle/235Gsvv9obHYXFC97
Telegram group link: https://t.me/joinchat/HJesed-VsA75sNIE
Whatsapp group link: https://chat.whatsapp.com/CJ6s5nMCSzQJgYMYTXarLY
About the Institution
Bharatiya Vidya Bhavan stands and commits itself for the reintegration of Bharatiya Vidya, which is the primary objective of Bharatiya Shiksha that can only be attained through a study of forces, movements, motives, ideas, forms & art-of creative live-energy. The ultimate aim of Bharatiya Shiksha is to teach the younger generations to appreciate and live up to the permanent values of Bharatiya Vidya and equip every student with scientific and technical training / knowledge. Bharatiya Vidya Bhavan has 367 Constituent Institutes including 119 Centres in India and 7 centres across the globe.

About the College
Hazarimal Somani College of Arts and Science and Jayaramdas Patel College of Commerce and Management Studies, affiliated to University of Mumbai, is a NAAC accredited college, nestled close to magnificent dome structure of its parent institution, Bharatiya Vidya Bhavan. It was inaugurated on June 21, 1965, in the august presence of its founder President, Late Kulapati Dr. K. M. Munshiji, member of the drafting committee of the Constitution of India. The college is amongst the prestigious, traditional and cultural heritage institutions in South Mumbai. The College avows the vision of its Founding Father Kulapati Dr. K. M. Munshiji and conveys the values of unity and intellectual expansiveness. True to its vision and creative energy, it constantly endeavors to instill values, a sense of propriety and commitment and mould the lives of students.

The college offers undergraduate courses in Science, Arts and Commerce; post graduate and Ph. D. courses in Zoology and Chemistry in Science and Post graduate courses in Commerce. The college also offers Self-financing courses for BMS and BAF. The Science Departments have well-equipped and spacious laboratories with modern equipment. The faculty members are actively engaged in research and allied activities.

Keeping in view the Vision, Motto and Ideals of the Institution, the Department of Sciences are organising an International Conference on ‘International Conference on Fundamental and Applied Sciences (ICFAS 2021)’.
About the Conference (ICFAS-2021):
The ‘International Conference on Fundamental and Applied Sciences (ICFAS 2021)’, which will be held in online mode, aims to provide a platform for dissemination of scientific research among eminent scientists, academicians and young budding researchers in the field of Chemical, Material and Life Sciences. The conference shall bring together aspirants from around the world to broaden the scientific field of vision, and cultivate comprehensive thinking ability so that students and researchers can become outstanding scientists and contribute to the rapidly changing society and to the world.

The various sessions and deliberations in this Conference would certainly highlight new methodologies for research in the field of Life sciences, chemical sciences and material sciences.

Objectives of the Conference:
• To provide a platform for researchers around the globe to present their unpublished work from the field of Chemical, Material and Life Sciences.
• To bring together academicians and experts from different parts of the country and abroad to exchange knowledge and ideas.
• To encourage and promote interdisciplinary scientific community to exchange and develop new strategies and establish global collaborations.

Themes:

Life Sciences
• New Concepts in Ecology, Biodiversity and its Conservation
• Current Issues in Environment Sciences
• Innovations in Bioremediation and Phytochemical Studies
• Technological Advances and Development in Genetics and Evolutionary Studies
• Recent trends in developing Agricultural Productivity
• Advances in Neurology and Behavioural Sciences
• Emerging Strategies in Vaccine Development

Chemical Science
• Organometallics
• Green Chemistry

• Organic Synthesis and their Applications
• Scientific Innovations, Prospects during Ongoing & Post COVID-19 Pandemic

Material Science
• Innovations in Nano Sciences and Smart Materials
• Applications of Physics in Medical Field
• Recent trends in Pure and Applied Mathematics
• Emerging Trends in Mathematical Modelling
• Coding Theory and Cryptography
• Financial Mathematics
• Applications of Differential Equations
• Multifunctional Composite Materials
• Photonics and Electronics
• Materials for Energy Harvesting
• Artificial Intelligence
• Spintronics
• Computational Physics
Call For Abstract/Paper

Researchers are requested to submit their research paper related to the theme of the Conference.

Guidelines for abstract submission:
- Abstract should not exceed 200 words including keywords (Font: Times New Roman, 12 points, Justified with 1.5 spacing) excluding cover page.
- Abstract should include the cover page depicting the name of the authors and presenter along with affiliation and emails and to be sent in MS word & PDF format to conference@bhavanschowpatty.ac.in on or before 18th March 2021 up to 6 pm.
- Abstract will be subjected to review process and will be selected for Oral / Poster Presentation and subsequently communicated by email.
- **Key Highlights:** Best Oral and Poster presentations will be awarded under different categories.

Research paper Submission:
- The selected manuscripts after peer-review process will be published in **Journal of Scientific Research (UGC-Care listed)**.
- All the manuscripts should be mail to conference@bhavanschowpatty.ac.in
- Manuscripts and references must strictly follow APA (American Psychological Association) style.
- The manuscripts may contain Title, Authors’ names, Affiliation, E-mail address, Abstract, Keywords, Introduction, Literature Survey, Proposed Approach, Results and Discussion, Conclusion, Experimental Section, Acknowledgments, References and Endnotes. However, authors can organize the contents of the manuscript according to their requirements.
- Title of the Paper (Times New Roman, Font Size 24, Center, Title Case) should includes name of authors (Times New Roman, Font Size 11, Title Case) and their affiliation (Times New Roman, Font Size 9, Center, Title Case).
- The abstract should not be more that 200 words. It must be written as one paragraph with at least 5 key words or phrases in alphabetical order, separated by commas, and should not contain displayed mathematical equations or tabular material. Ensure that your abstract reads well and is grammatically correct. (Times New Roman, Font Size 9, Bold, Justified)
- Main text of the manuscript inside each heading must be Times New Roman, font size 10, justified alignment, and 1.15 line spacing. First line of each paragraph should be indentation by 0.14” tab space.
- For more details, please visit the journal website: https://www.bhu.ac.in/research_pub/jsr/
- The acceptance of manuscripts will be communicated by email, thereafter the author need to pay the requisite amount fees mentioned in the “registration details” section.
**Registration Details:**

<table>
<thead>
<tr>
<th>Participant Profile</th>
<th>Indian Delegates</th>
<th>International Delegates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only Participation</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Oral/Poster Presentation</td>
<td></td>
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<tr>
<td>a) UG/PG students</td>
<td>Rs. 100</td>
<td></td>
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<tr>
<td>b) Research Scholars</td>
<td>Rs. 250</td>
<td>$ 20</td>
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<tr>
<td>c) Faculty Members</td>
<td>Rs. 500</td>
<td></td>
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<tr>
<td>Research paper after selected for publication</td>
<td>Additional Rs. 2500</td>
<td>Additional $ 100</td>
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**Payment Details**

| Account Name:               | The Principal, Bhavan’s Hazarimal Somani College, Chowpatty, Mumbai |
| Bank:                       | UCO Bank, Chowpatty, Mumbai 400007 |
| Account type:              | Saving |
| Account No.:               | 00900100016148 |
| IFSC Code:                 | UCBA0000090 |
| MICR Code:                 | 400028005 |

**Important Dates:**

- Last date of online registration: **18th March 2021**
- Last date of abstract submission: **18th March 2021**
- Last date of submission of Oral/Poster Presentation: **20th March 2021**
- Last date of Full-length Research Paper submission: **21st March 2021**
### Programme Schedule

**Day 1: Wednesday, 24th March 2021**

<table>
<thead>
<tr>
<th>Time &amp; Programme</th>
<th>Topic and Speaker’s Profile</th>
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<tbody>
<tr>
<td>9.00 am to 10.00 am</td>
<td><strong>Inauguration &amp; Keynote address</strong>&lt;br&gt;Patron’s Address: &lt;br&gt;<em>Hon. Shri. Mukul Sonawalaji</em>, Trustee, Bharatiya Vidya Bhavan, Mumbai, India&lt;br&gt;Principal’s Address: &lt;br&gt;<em>Prof. (Dr.) S. V. Rathod</em>, Principal, Bhavan’s H. Somani College, Mumbai, India&lt;br&gt;Keynote address&lt;br&gt;<em>Hon. Prof. (Dr.) A. B. Pandit</em>, Vice Chancellor, Institute of Chemical Technology (ICT), Mumbai, India.</td>
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<td>10:10 am to 10:50 am</td>
<td><strong>Plenary Talk 1</strong>&lt;br&gt;“Can you Live without me? – Rechargeable Batteries!”&lt;br&gt;<em>Dr. Vilas Pol</em>, Professor and Purdue faculty scholar, Davidson School of Chemical Engineering, Purdue University, USA</td>
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<tr>
<td>11:05 am to 11:45 am</td>
<td><strong>Plenary Talk 2</strong>&lt;br&gt;“Laser based synthesis of two dimensional nanomaterials towards optoelectronic devices”&lt;br&gt;<em>Dr. Pankaj Koinkar</em>, Department of optical Science, Tokushima University, Japan</td>
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<td>12:00 pm to 12:40 pm</td>
<td><strong>Plenary Talk 3</strong>&lt;br&gt;“Biodiversity research data management overview and introduction”&lt;br&gt;<em>Dr. Jitendra Gaikwad</em>, Biodiversity Informatics Scientist, Friedrich Schiller University, Jena, Germany</td>
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<tr>
<td>1:00 pm to 2:00 pm</td>
<td><strong>Lunch Break</strong></td>
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<td>2:00 pm onward</td>
<td><strong>Technical Session 1 – Oral/Poster presentation</strong></td>
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<tr>
<td>Time &amp; Programme</td>
<td>Topic and Speaker’s Profile</td>
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<tr>
<td><strong>09:00am to 09:40am</strong>&lt;br&gt;Plenary Talk 4</td>
<td><strong>“Growth Factors As Novel Metabolic Regulators - A Zebrafish Story”</strong>&lt;br&gt; <strong>Dr. Suraj Unniappan,</strong>&lt;br&gt; Professor &amp; Centennial Enhancement Chair in Comparative Endocrinology, Laboratory of Integrative Endocrinology, Western college of Veterinary Medicine, University of Saskatchewan, Canada</td>
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<tr>
<td><strong>10:00 am to 10:40am</strong>&lt;br&gt;Plenary Talk 5</td>
<td><strong>“Innovations in Nanochemistry to Harvest Solar Energy and Convert CO2 to Fuel”</strong>&lt;br&gt; <strong>Dr. Vivek Polshettiwar,</strong>&lt;br&gt; Associate Professor, Department of Chemical Sciences, Tata Institute of Fundamental Research (TIFR), Mumbai, India</td>
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<tr>
<td><strong>11:00am to 11:40 am</strong>&lt;br&gt;Plenary Talk 6</td>
<td><strong>“Seasonal response of CART peptide network in correlation to reproductive behavior of anurans”</strong>&lt;br&gt; <strong>Prof. (Dr.) Shobha Bhargava,</strong>&lt;br&gt; Emeritus Professor, Department of Zoology, SPPU, Pune, India</td>
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<td><strong>12:00pm to 12:40pm</strong>&lt;br&gt;Plenary Talk 7</td>
<td><strong>“Role of Catalysis in Sustainable Chemistry”</strong>&lt;br&gt; <strong>Dr. D. V. Prabhu,</strong>&lt;br&gt; Former Head and Adjunct Professor, Department of Chemistry, Wilson College, Mumbai Editor-in-Chief, GP Globalize Research Journal of Chemistry Fellow of the Royal Society of Chemistry, UK</td>
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**1:00pm to 2pm - Lunch Break**

2:00pm onward | Technical Session 2 – Oral/Poster presentation |
<table>
<thead>
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<th>Time &amp; Programme</th>
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</thead>
</table>
| 09:00am to 09:40am | “Minimally invasive evaluation of stress hormones in mammals in field biology and zoological programs”  
Dr. Edward Narayan,  
Senior Lecturer,  
School of Agriculture and Food Sciences, Faculty of Science, The University of Queensland, Australia |
| 10:00am to 10:40am | “Chemical Genetic screening approach to study biology in microalgae”  
Dr. Nishikant Wase,  
Senior Scientist, Molecular Analysis facility, School of Medicine, University of Virginia, USA |
| 11:00am to 11:40am | "Petroleum Industry and Microbial Biotechnology: Opportunities and Challenges"  
Dr. Sanket Joshi,  
Deputy Director, Oil & Gas Research Center, and an Application Specialist, Oil & Gas Science at Sultan Qaboos University, Oman. |
| 12:00pm to 12:40pm | “Approximation of integral equations”  
Dr. Laurence Grammont,  
University of Saint-Eteinne, France |

1:00pm to 2pm - Lunch Break

2:00 pm  
Valedictory  

Guest of Honor  
Prof. (Dr.) A. D. Sawant,  
Former, Vice Chancellor, University of Rajasthan, Jaipur, Rajasthan.  
Former Pro Vice Chancellor, University of Mumbai, Mumbai  
Former Joint Director of Higher Education, Mumbai region

Important Note:  
All the above timings are in Indian Standard Time (IST)
International Advisory Committee:

- Dr. Suraj Unniappan – Professor and Centennial Enhancement Chair in Comparative Endocrinology, Laboratory of Integrative Neuroendocrinology, University of Saskatchewan, Saskatchewan, Canada
- Dr. Edward Narayan – Senior Lecturer, University of Queensland, Australia
- Dr. Jitendra Gaikwad – Biodiversity Informatics Scientist, Friedrich Schiller University Of Jena, Germany
- Dr. Claudia Pinelli – Department of Environmental, Biological and Pharmaceutical Sciences and Technologies (DiSTABiF), Caserta, Italy
- Prof. Kamala Bhat – Department of Chemistry, Albama A& M University, Albama, USA
- Dr. Vilas Pol – Professor and Purdue Faculty Scholar, Davidson School of Chemical Engineering, Purdue University, USA
- Dr. Priy Brat Dwivedi – National University of Science and Technology, Muscat, Oman
- Dr. Dhanaji V asantrao Jawale – Post-Doc, University Paris-Saclay, France
- Dr. Grammont Laurance, University Jean Monnet, University of Lyon, Institut Camille Jordan, UMR 5208

National Advisory Committee

- Prof. (Dr.) B. P. Kapadnis – Emeritus Professor (UGC), UGC BSR Fellow, FMAS, FBRSI, Department of Microbiology, Savitribai Phule Pune University, Pune
- Prof. (Dr.) Shobha Bhargava – Emeritus Professor, Department of Zoology, Savitribai Phule Pune University, Pune
- Dr. D. V. Prabhu, Adjunct Professor and Former Head, Department of Chemistry, Wilson College, Mumbai
- Prof. (Dr.) M. M. V. Ramana, Former Head, Department of Chemistry, University of Mumbai
- Prof. (Dr.) D. P. Gogle – Former Head, Department of Botany, RTM Nagpur University, Nagpur
- Prof. (Dr.) Rajendra Shinde – Principal St. Xavier’s College, Mumbai, Chairman BOS in Botany, University of Mumbai
- Prof. (Dr.) Rajendra Deore, Head, Department of Mathematics, University of Mumbai
- Prof. (Dr.) Rahul Jadhav – Head, Department of Zoology, Annasheheb Vartak College, Vasai
- Dr. V. N. Bhoraskar – Former Prof. (Retd.) Department of Physics, S. P. Pune University, Pune
- Dr. (Mrs.) S. V. Bhoraskar, Retd. Professor, S. P. Pune University, Pune
- Dr. Sharad Chavan, Sr. Scientist, Society of Applied Microwave Electronics Engineering and Research (SAMEER), Mumbai
- Dr. Rajesh Vatsa, Senior Research Scientist, Bhabha Atomic Research Centre, Mumbai
- Dr. Dilip Bharmal – Principal, SPK College, Sawantwadi, Chairman BOS in Zoology, University of Mumbai
- Dr. Radha Srinivasan, Department of Physics, University of Mumbai
- Dr. Vinayak Kamble, Asst. Professor, IISER Thiruvananthpuram
- Dr. Manisha Acharya, Associate Professor, Maharshi Dayanand College, Mumbai
- Dr. Akshay Rane, UGC Assistant Professor, ICT, Mumbai
- Dr. Nitin Labane, Associate Professor, Department of Botany, Bhavan’s College Andheri, Mumbai
Patron
Shri. Mukul Sonawalaji
Trustee, Bharatiya Vidya Bhavan,
Chairperson, Governing Body, Hazarimal Somani College, Mumbai

Prof. (Dr.) S. V. Rathod
Chairperson and Principal

Dr. Sandip Maind
Convenor
(8425916377)

Dr. Suraj Gajbhiye
Organizing Secretary
(9821331987)

Mr. Swapnil Shewale
Co-Convenor (7709745350)

Ms. Ambika Sharma
Joint-Organizing Secretary

Mr. Ashok Ingle
Treasurer

Organizing Committee members

Dr. Urmila Maru
Mr. Nitin Sardesai
Mrs. Veena Shinde-Deore
Dr. Balkrishna Ambhore

Dr. Shantaj Deshbhratar
Dr. Vijay Hile
Mr. Deepak Nawale
Dr. Utkarsha Chavan