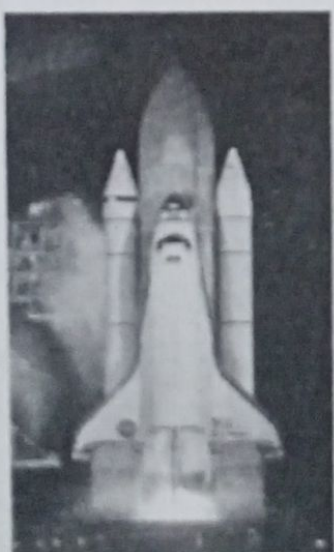
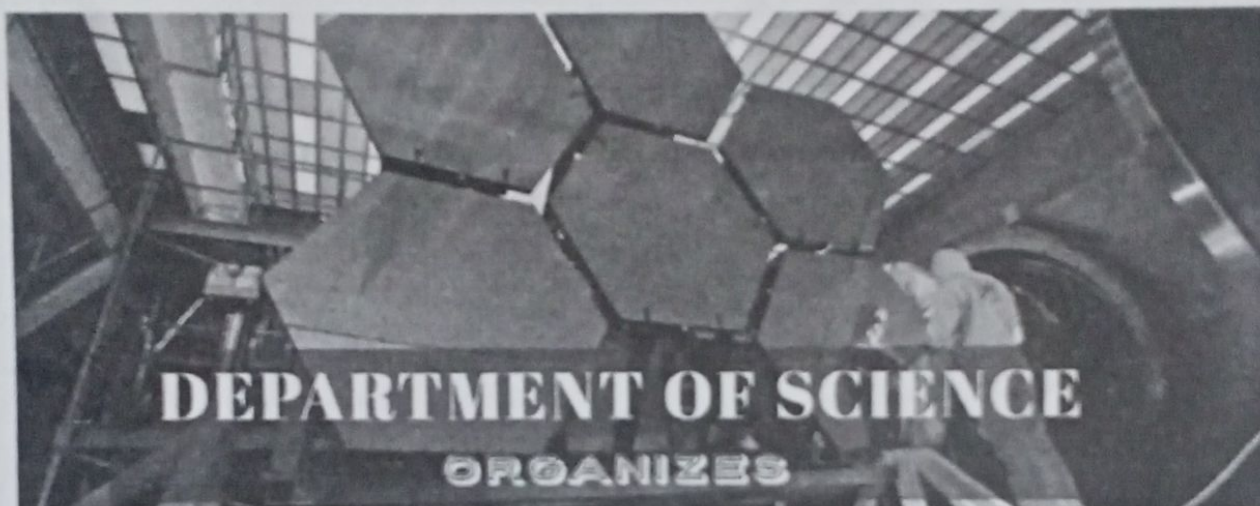




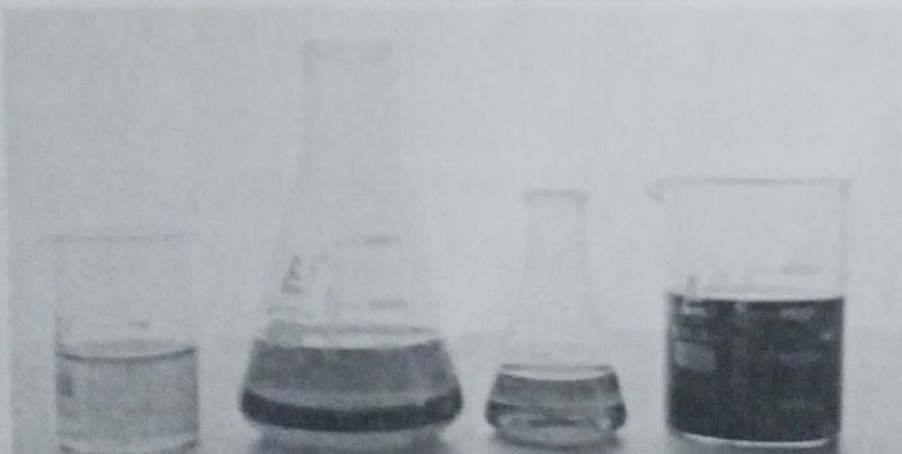
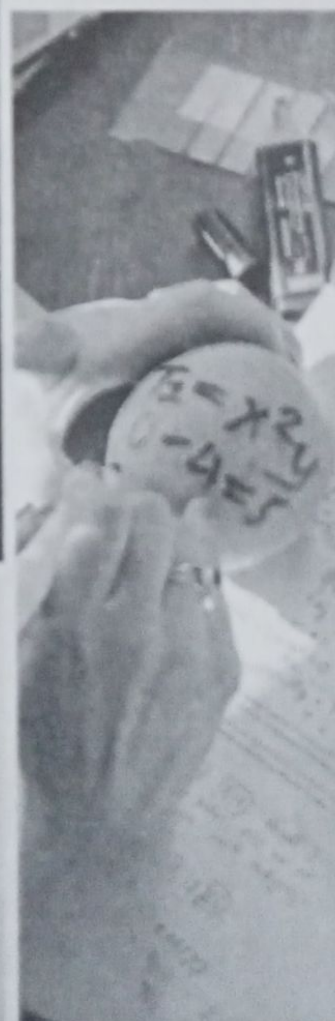
**MARKANDA NATIONAL COLLEGE**  
**SHAHABAD MARKANDA**  
**(HARYANA, INDIA)**  
(NAAC Re-Accredited Institute)



**DEPARTMENT OF HIGHER EDUCATION, HARYANA,**  
**APPROVED**  
**TWO DAYS ONLINE INTERNATIONAL CONFERENCE**



**INTERNATIONAL**  
**CONFERENCE ON**  
**ADVANCES IN**  
**SCIENCE AND**  
**TECHNOLOGY IN**  
**21ST CENTURY**  
**(ICAST-22)**  
**26-27 FEBRUARY 2022**



**REGISTRATION LINK:**

<https://tinyurl.com/ICAST2022>

**Call for Papers/Abstracts**

**Last Date February 22, 2022**

**Email: [icast22@mneshabad.com](mailto:icast22@mneshabad.com)**





## GENERAL PROFILE OF COLLEGE

Markanda National College, Shahabad- Markanda was established in 1971 by M.N. College Educational Society primarily to cater to the educational needs of this predominantly rural area. At that time, no college existed at Ladwa and even at Kurukshetra - the seat of Kurukshetra University, except University College, which had only brilliant urban students on its rolls. The establishment of this college proved to be a boon for this area. Ever since its inception, this college has not looked back and making significant strides, has developed into a multifaculty institution, imparting instructions in English at Post-graduate level and in Arts, Science and Commerce Streams at under-graduate level. The college also runs successfully PG diploma in Yoga and two job oriented add-on courses (i) Retail Management and (ii) Information and computer technology. The college is co-educational institution affiliated to Kurukshetra University, Kurukshetra. The college is proud of its imposing infrastructure and an environment conducive to learning. It has a spacious building surrounded by lush green lawns and a playground. The building consists of well maintained class rooms, well equipped labs (Physics, Chemistry, Computer and Edusat), a spacious Library, a conference room, an auditorium with three green rooms, a Webinar Hall, a big canteen, new and modern girls common room, Edusat theatre besides office complex and Principal's residence. At present, the college has more than one thousand students on its rolls. Besides traditional subjects, faculty is available for teaching marketing as vocational subject. The college is also running NSS and NCC units successfully.



# INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND TECHNOLOGY IN 21ST CENTURY (ICAST-22)

## SUB-THEMES

- Non-linear Dynamics
- Spectroscopic Techniques
- Electrochemistry
- Materials Synthesis and Characterization Techniques
- Green Chemistry
- Pharmaceuticals
- Polymers
- Template synthesis Nano-Materials
- Natural and Background Radioactivity
- Renewable and Non-Renewable energy
- Computational Mathematics
- Everyday's life in Chemistry
- Food, Energy and Nutrition
- Role of ICT during COVID-19 Pandemic
- Soil, Plant and Atmosphere
- Space Research
- Role of Mathematics in Science and technology
- Any other topics relevant to the theme

## **Research Paper Details:**

- Research paper based on above sub-themes of the conference are invited.
- Selected Papers will be published in conference proceedings with ISBN.
- The abstract should not exceed 200 words including the title of the paper.
- Soft copy of the research paper/abstract should be sent by email to [icast22@mncshahabad.com](mailto:icast22@mncshahabad.com) on or before February 22, 2022.

**Note:** Paper must be typed in 12 Font, Times New Roman with 1.5 line spacing in MS Word format. Title must be in 14 Font, Times New Roman. References must follow the latest APA/MLA standards.

**\* Participants will be provided E-Certificate**

**\* Presentation of Research Paper is Mandatory**

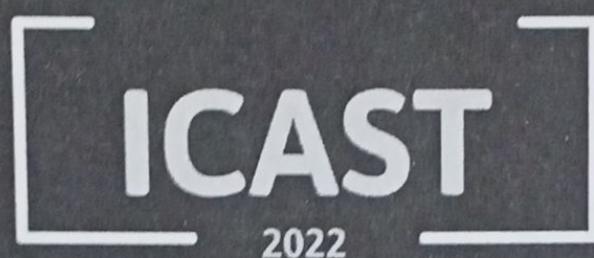


**MARKANDA NATIONAL COLLEGE  
SHAHABAD MARKANDA (HARYANA, INDIA)**

**INTERNATIONAL CONFERENCE ON  
ADVANCES IN SCIENCE AND TECHNOLOGY IN 21ST CENTURY  
(ICAST-22)**

**26 & 27th February 2022**

**10:00 a.m. – 5:00 p.m**



<b>Category</b>	<b>Fee upto February 18, 2022</b>	<b>Fee after February 18, 2022</b>
• <b>Foreign Delegates</b>	• <b>\$ 20</b>	• <b>\$ 25</b>
• <b>Indian Delegates</b>	• <b>INR 500</b>	• <b>INR 700</b>
• <b>Research Scholar/Student</b>	• <b>INR 500</b>	• <b>INR 500</b>
• <b>Only Participation</b>	• <b>INR 300</b>	• <b>INR 300</b>

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# MARKANDA NATIONAL COLLEGE SHAHABAD MARKANDA (HARYANA, INDIA)

## INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND TECHNOLOGY IN 21ST CENTURY (ICAST-22)

26 & 27th February, 2022

10:00 a.m. – 5:00 p.m

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\*Partial Alphabetical List

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# REPORT OF THE CONFERENCE ON THE TOPIC "ADVANCES IN SCIENCE AND TECHNOLOGY IN 21ST CENTURY."

The Department of Science, Markanda National College, Shahabad Markanda organized a two Day Online International Conference on the topic Advances in science and technology in 21<sup>st</sup> century approved by the Department of Higher Education, Government of Haryana (India). The world is progressing exponentially as basic research and applied technologies advances. As a result, the topic is current, and it was chosen for the conference. The conference is organized with an objective to mark the occasion of National science day, which is celebrated on 28<sup>th</sup> Feb by the Government of India to pay homage to Nobel laureate Sir C.V. Raman for his discovery of Raman's effect.

The program on 1<sup>st</sup> day of this international conference started by Dr. Amit Kumar, Organising Secretary, with the lighting of lamp ceremony and Saraswati Vandana with a prayer to inculcate light and wisdom in everyone's life. Dr. Ashok Kumar, Principal of the college extended warm welcome to Chief Guest of Inaugural address, Prof. Som Nath Sachdeva, Vice chancellor, Kurukshetra University Kurukshetra, Key note speaker, Dr. Chandan Gosh, University of Massachusetts, USA, Dr. Krishan Kant, Principal Agarwal College Ballabgarh, Dr. Neera Raghav, Dr. Anjana Jain, all Resource persons, delegates, research scholars and students from various institutes of India and Abroad.

Dr. Jawahar Lal, convener of the conference, highlighted the importance and objectives of the conference. In his Chief Guest address, Prof. Som Nath Sachdeva, VC, KUK elaborated on relevant topics like Automation of industry, Internet of things, Industrial revolution, disruptive technologies etc.

Keynote speaker, Dr. Chandan Gosh spoke on social benefits of nuclear science and technology in health care, cancer diagnosis and treatment, power generation, food preservation, determination of age of Archeological objects, MRT, PET Scanning, to study Ocean currents, National security via X-Ray scanner, Smoke detector etc.

At the end of Inaugural address, Dr. Tarun Kumar delivered a vote of thanks to the distinguished guests and delegates.

1<sup>st</sup> Technical session was chaired by Dr. Krishan Kant, Principal, Agarwal College Ballabgarh. He introduced resource persons - Dr. Neera Raghav and Dr. Anjana Jain to the delegates. In this session 1<sup>st</sup> invited talk was delivered by Prof. Dr. Neera Raghav.



Chairperson, Dept. of Chemistry, KUK. She discussed about the meaning aim and objectives sustainable development and correlated with Green Chemistry. She focused on the different types of enzyme like Lipase, Amylase etc. 2<sup>nd</sup> invited talk was delivered by Dr. Anjana Jain, National Aerospace Laboratories, Bengaluru. She delivered talk on futuristic smart materials for advances in science and technology. She shared the valuable information about cantilever beams based on the configuration, power obtained from different sources, PVDF accelerometer, sensor evaluation on SARAS aircraft.

In the second technical session, three parallel sessions of Paper presentations were conducted. In the subject of Physics Dr. M.K. Kashyap, JNU, Delhi, In the subject of Chemistry, Prof Dr. M.Y. P.U. Patiala and in Maths Dr. Vishal Gupta, MMU, Mullana chaired the sessions. They assessed the quality of Research paper presentation and commented thoroughly. 70 Research papers were present on 1<sup>st</sup> day.

Sh. Suresh Kumar, Co-Convener of the conference started the Day 2 of the conference by presenting a brief report of Day 1. Dr. Ajay Kumar Garg, Principal, IB College, Panipat, chaired the technical session 3. Dr. Garg introduced the 1<sup>st</sup> resource person Dr. Deependra Tyagi, Research Assistant Professor, Southern University of Science and Technology, China. Dr. Deependra spoke on Lipid Nano particles for m-RNA delivery system: its promises, challenges and advances.

Prof. Rajinder Nath, Dept. of Computer Science and Applications, KUK was the Resource person of 2<sup>nd</sup> invited talk of the technical session. Dr. Rajinder discussed the rapid pace and progress of emerging technologies in the area of computing and technology. Sh. Suresh Kumar delivered a vote of thanks to chairperson and Resource Persons.

Dr. Tarun Kansal started the Technical session 4.

Dr. Rajpal Singh, Principal, G.M.N. College, Ambala Cantt chaired the session and invited Resource person Dr. Briz Mohan, Jimei University, Xiamen, China. He discussed about frame work of metal complexes and MOF's, various measurement methods of detection of optical/Luminiscent materials.

Prof. Ashish Arora from Inder Kumar Gujral, Punjab Technical University Punjab was the 2<sup>nd</sup> Resource person of this technical session. Dr. Arora discussed about Indian Contribution to the world of Mathematics.

Dr. Tarun Kansal delivered a vote of thanks to the chairperson and both resource persons of this session.

The 5<sup>th</sup> Technical session was conducted for oral research presentation in the subjects Physics, Chemistry, Mathematics and Computer Science on parallel platforms. Prof. Faqir




Chand, Chairperson of Dept. of Physics chaired and assessed the oral presentation in the subject of Physics, Dr. Sanjay Kumar Singh, Indian Institute of Technology, Indore, M.P. chaired and assessed the presentation in the subject of Chemistry, Dr. Rajnesh Kumar, Dept. of Mathematics, KUK, chaired and assessed the presentation in the subject of Mathematics and Dr. Vivek Sharma, Jai Parkash Mukand Lal Innovative Engineering and Technology Institute, Radour, Haryana chaired and assessed the oral presentation in the subject of Computer Science and Applications. More than 70 oral presentations were delivered by research scholars and faculty of different in all session of day 2.

The Valedictory session was conducted by Dr. Ajay Kumar Arora, Joint Secretary of this conference and he introduced the Chief guest Dr. Kuldeep Singh Dhindsa, Eminent Scientist. Dr. Dhindsa shared his valuable, informative and inspiring speech on the theme of the topic. He discussed about Innovation and research in science and technology and encouraged delegates to make progress through scientific temperament and principles.

In this conference 50 Research scholars, 99 Assistant Professors, 15 Associate Professors and 01 Professor got registered and many other participants joined via online mode from various institutes of India and Abroad and more than 140 Research papers were presented by the delegates in the subject of Physics, Chemistry, Mathematics and Computer Science.

A. Chand  
(Convener)

  
Principal (Principal)  
Markanda National College  
Shahabad Markanda (Haryana)



# ONLINE INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND TECHNOLOGY IN 21<sup>ST</sup> CENTURY (ICAST-22)

**PROGRAMME SCHEDULE**  
February 26-27, 2022

**DAY-1: FEBRUARY 26, 2022 (SATURDAY)**

## INAUGURAL SESSION (10:00-12:00 AM)

<b>Lighting of Lamp and Maa Saraswati Vandana</b>	<b>Virtual Mode</b>	<b>10:00 am</b>
<b>Welcome Address</b>	<b>Dr. Ashok Kumar, Principal</b>	<b>10:05 am</b>
<b>Objectives of Conference</b>	<b>Dr. Jawahar Lal, Convener</b>	<b>10:20 am</b>
<b>Inaugural Address</b>	<b>Prof. S.N. Sachdeva Vice-Chancellor, Kurukshetra University, Kurukshetra</b>	<b>10: 35 am</b>
<b>Keynote Address</b>	<b>Dr. Chandan Ghosh, Department of Physics University of Massachusetts Amherst, USA</b>	<b>10:45 am</b>
<b>Vote of thanks</b>	<b>Dr. Tarun Kansal</b>	<b>11:45 am</b>

## TECHNICAL SESSION-I (11:50-01:50 PM)

**Chairperson: Dr. Krishan Kant Gupta, ACB, Faridabad**

<b>IT-1</b>	<b>Prof. Neera Raghav, Kurukshetra University, Kurukshetra</b>	<b>11:50-12:50 pm</b>
<b>IT-2</b>	<b>Dr. Anjana Jain, CSIR-National Aerospace Laboratories, Bengaluru</b>	<b>12:50-01:50 pm</b>

## TECHNICAL SESSION-II (01:50 PM ONWARDS) ORAL PRESENTATIONS

<b>Parallel Session –I Paper- PH01 – PH17</b>	<b>Parallel Session –II Paper CH01 – CH25</b>	<b>Parallel Session-III Paper MA01-MA15</b>
<b>Chairperson Prof. Manish K Kashyap, Jawaharlal Nehru University, New Delhi</b>	<b>Chairperson Prof. Mohamad Yusuf, Punjabi University, Patiala</b>	<b>Chairperson Prof. Vishal Gupta Maharishi Markandeshwar University, Mullana</b>



# ONLINE INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND TECHNOLOGY IN 21<sup>ST</sup> CENTURY (ICAST-22)

DAY-2: FEBRUARY 27, 2022 (SUNDAY)

## TECHNICAL SESSION-III (10:00-12:00 PM)

Chairperson: Dr. Ajay Kumar Garg, I.B. Post Graduate College Panipat

IT-3	Dr. Deependra Tyagi Southern University of Science and Technology, Shenzhen, China	10:00-11:00 am
IT-4	Prof. Rajender Nath, Department of Computer Science and Applications, Kurukshetra University, Kurukshetra	11:00-12:00 am

## TECHNICAL SESSION-IV (12:00-02:00 PM)

Chairperson: Dr. R P Singh, Gandhi Memorial National College, Ambala Cantt

IT-5	Dr. Brij Mohan, Jimel University, Xiamen, China	12:00-01:00 pm
IT-6	Prof. Ashish Arora, Inder Kumar Gujral Punjab Technical University, Punjab	01:00-02:00 pm

## TECHNICAL SESSION-V (02:00- 04:00 PM) ORAL PRESENTATIONS

Parallel Session –I	Parallel Session –II	Parallel Session –III	Parallel Session –IV
Chairperson: Prof. Faqir Chand, Kurukshetra University, Kurukshetra	Chairperson: Dr. Rajneesh Kumar, Kurukshetra University, Kurukshetra	Chairperson: Dr. Sanjay Kumar Singh, Indian Institute of Technology, Indore	Chairperson: Dr. Vivek Sharma, Jai Parkash Mukand Lal Innovative Engineering and Technology Institute, Radaur
Paper- PH18 Onwards	Paper- MA16 Onwards	Paper- CH26 Onwards	Paper- CS01-CS10

## VALEDICTORY SESSION (04:00 PM ONWARDS)

Welcome Address	Dr. Ashok Kumar, Principal	04:00-04:10 pm
Valedictory Address	Prof. (Dr.) Kuldip Singh Dhindsa, Eminent Scientist	04:10-04:40 pm
Conference Report	Sh. Suresh Kumar, Co-Convener	04:40-04:50 pm
Vote of Thanks	Dr. Ajay Kumar Arora	05:00 pm

Paper presentation ID will be sent to all participants shortly

*A. Arora*  
Convener

*Ashok Kumar*  
Principal  
Markanda National College  
Markanda (Haryana)



# आत्मनिर्भर भारत निर्माण में विज्ञान व तकनीकी की भूमिका अहम : सोमनाथ सचदेवा



शाहाबाद में मारकंडा नेशनल कॉलेज में ऑनलाइन कॉन्फ्रेंस में भाग लेते प्रतिभागी।

(अजय)

शाहाबाद मारकंडा, 28 फरवरी (मदन) : मारकंडा नेशनल कॉलेज शाहाबाद एवं उच्च शिक्षा विभाग, हरियाणा के संयुक्त तत्वावधान में विज्ञान विभाग द्वारा 2 दिवसीय अंतर्राष्ट्रीय कॉन्फ्रेंस का शुभारंभ किया गया। इस वैबिनार का मुख्य विंदु रहा- एडवांसेज इन साइंस एंड टेक्नोलॉजी इन ट्वेंटी फर्स्ट सेंचुरी। अंतर्राष्ट्रीय कॉन्फ्रेंस में 15 राज्यों से रसायन विज्ञान, भौतिकी विज्ञान, कम्प्यूटर विज्ञान, गणित व अन्य विषयों से संबंधित 200 से ज्यादा प्रतिभागी उपस्थित रहे। प्रथम सत्र में डॉ. अशोक कुमार, प्राचार्य ने मुख्यातिथि कुलपति प्रोफेसर सोमनाथ सचदेवा, कुरुक्षेत्र विश्वविद्यालय का ऑनलाइन विधि से स्वागत किया तथा सभी देश-प्रदेश व विदेश से जुड़े हुए रिसोर्सपर्सन, डॉ. चंदन घोष, चेयरपर्सन रिसर्च, डॉ. कृष्ण कान्त, शिक्षाविद्, शोध स्कॉलर व विद्यार्थियों आदि का स्वागत किया। उन्होंने राष्ट्रीय विज्ञान दिवस की शुभकामनाएं देते हुए बताया कि कॉलेज प्रत्येक वर्ष राष्ट्रीय विज्ञान दिवस पर विभिन्न प्रकार की गतिविधियां आयोजित करता रहा है, जिनका निश्चित रूप से विद्यार्थियों को पूर्ण लाभ प्राप्त होता है। इस वर्ष विज्ञान विभाग द्वारा 2 दिवसीय अंतर्राष्ट्रीय ऑनलाइन कॉन्फ्रेंस का आयोजन हुआ है। कॉन्फ्रेंस समन्वयक डा. जवाहर लाल ने कॉन्फ्रेंस की उपयोगिता, लक्ष्य व विशिष्ट विशेषताओं के बारे में मुख्यातिथि एवं

प्रतिभागियों को बताते हुए कहा कि विज्ञान एवं तकनीकी के बिना कोई भी देश तरक्की नहीं कर सकता।

प्रो. सोमनाथ सचदेवा ने विज्ञान व तकनीकी में प्रयुक्त होने वाले सभी यंत्रों, ऑटोमेशन ऑफ ट्रेडीशन आधुनिक मशीनों, इंटरनेट ऑफ थिंग्स, वाणी में सुधार, डिस्क्रीप्टिव टेक्नोलॉजी आदि के बारे में विस्तार पूर्वक जानकारी सांझा करते हुए बताया कि हमारे सभी शिक्षक वर्ग, रिसर्च स्कॉलर व विद्यार्थियों को विज्ञान जगत में होने वाले परिवर्तनों पर गंभीरता से सोच विचार करना होगा तथा बढ़ती हुई आवादी के साथ-साथ कार्बन उत्सर्जन को रोकथाम पर भी विचार करना होगा।

प्रारंभिक सत्र में डॉ. अमित कुमार द्वारा सत्र का संचालन किया गया। इस सत्र के चेयर पर्सन डॉ. कृष्ण कांत गुप्ता, प्राचार्य, अग्रवाल कॉलेज, बल्लभगढ़ रहे। उन्होंने प्रो. नीरा राघव

चेयरपर्सन, रसायन विज्ञान विभाग, कुरुक्षेत्र विश्वविद्यालय का परिचय सभी प्रतिभागियों के समक्ष सांझा किया।

नीरा राघव ने सतत विकास का अर्थ, उद्देश्य, प्रभाव व उनका रसायनों तथा एंजाइम से संबंधित शोध पर बहुत ही प्रभावी रूप से सभी प्रतिभागियों के समक्ष पावर प्वाइंट प्रेजेंटेशन के माध्यम से प्रस्तुत किया।

इसी सत्र में डॉ. अंजना जैन, राष्ट्रीय वैमिनकी, अनुसंधान बेंगलोर ने अपने व्याख्यान में भविष्य में होने वाले सुंदर पदार्थों का विज्ञान व तकनीकी के क्षेत्र में, उपयोग पर प्रकाश डाला। इस अवसर पर महाविद्यालय स्टाफ से प्रोफेसर सुरेश कुमार, डॉ. अजय कुमार, प्रोफेसर मंजू गुप्ता, प्रोफेसर एस.एस. काजल, डाक्टर शालिनी शर्मा, डॉ. भूपेंद्र तंवर, प्रो. कल्पना, डॉ. चूहड़ सिंह, प्रो. सिद्धांत, डॉ. संदीप शिवराज श्योराण, उपस्थित थे।

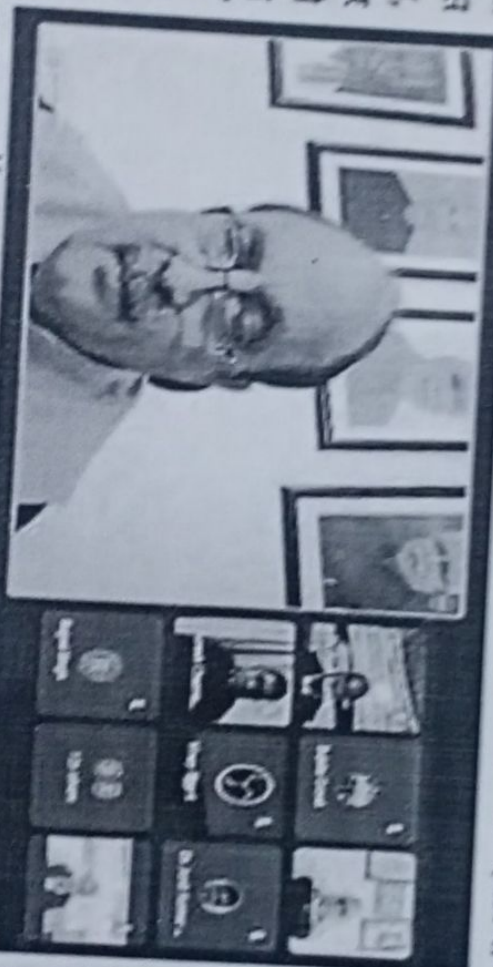


# आत्मनिर्भर भारत के निर्माण में विज्ञान व तकनीकी की अहम भूमिका : प्रो. सोमनाथ

शारदाशार, भारतकंडा, 26 फरवरी (विद्युत कुम्भार) : भारतकंडा नेशनल कॉलेज एवं उच्च शिक्षा विभाग लखनऊ के सचिव कल्याण में विज्ञान विभाग द्वारा दो दिवसीय अंतरराष्ट्रीय कॉन्फ्रेंस का शुभारंभ किया गया। इस वर्षीयार का मुख्य बिंदु रहा 'एजेंडासेज इन साइंस एंड टेक्नोलॉजी इन ट्वेंटी फर्स्ट सेचुरी'। कार्यक्रम का शुभारंभ सरकारी बंदन से हुआ। इस अंतरराष्ट्रीय कॉन्फ्रेंस में 15 राज्यों से रसायन विज्ञान, भौतिकी विज्ञान, कंप्यूटर विज्ञान, गणित व अन्य विषयों से संबंधित 200 से जारहा प्रतिभागी उपस्थित रहे। प्रथम सत्र में प्राचार्य डा. असोक कुमार ने मुख्यधारीधि कुलपति प्रोफेसर सोमनाथ सचदेवा कुलशेखर विधिविद्यालय का ऑनलाइन विधि से स्वागत किया तथा सभी देश-प्रदेश व विदेश से जुड़े हुए सिसोर्स फर्सन डा. चन्दन घोष केसर फर्सन सिसर्च डा. कृष्ण कान्त शिशुभदिर शोथ स्कर्लर व विद्यार्थियों का स्वागत किया। उन्होंने राष्ट्रीय विज्ञान दिवस की शुभकामनाएं देते हुए बताया कि भारतकंडा नेशनल कॉलेज प्रत्येक वर्ष राष्ट्रीय विज्ञान दिवस पर विभिन्न प्रकार की गतिविधियां आयोजित करता रहा है, जिनका निश्चित रूप से

विद्यार्थियों को पूर्ण लाभ प्राप्त होगा है। इस वर्ष विज्ञान विभाग द्वारा दो दिवसीय अंतरराष्ट्रीय ऑनलाइन कॉन्फ्रेंस का आयोजन हुआ है। इस कॉन्फ्रेंस को आयोजित कल्याण वर मुख्य उद्देश्य यह है कि हमारे सभी प्रतिभागी, सिसर्च स्कर्लर, प्रोफेसर, विद्यार्थी विदेश व देश से सर्वांभा ग्लान विज्ञान जगत में कार्य करने वाले व्यक्तित्व

प्रोफेसर सोमनाथ सचदेवा कुलपति कुलशेखर विधिविद्यालय ने विज्ञान व तकनीकी में प्रयुक्त होने वाले सभी यंत्रों, ऑटोमेशन ऑफ डेवेलपिन आयुनिक मशीनें, इंटरनेट ऑफ थिंग्स, चणगी में सुधार, डिजिटल डेवेलपमेंट आदि के बारे में विस्तार पूर्वक जानकारी सझा करने हुए बताया कि हमारे सभी शिक्षक वर्ग, सिसर्च स्कर्लर व विद्यार्थियों को विज्ञान जगत में होने वाले परिवर्तनों पर गंभीरता से सोच विचार करना होगा तथा बढ़ती हुई आघाटी के साथ-साथ कार्यन उत्सर्जन की रोकथाम पर भी विचार करना होगा। भारत को नई राष्ट्रीय शिक्षा नीति के मिशन के लक्ष्य को भी सांझा करते हुए उन्होंने कहा कि सभी को बहुआयामी विषयों पर अपनी पकड़ मजबूत बनानी होगी। सत्र में डा. तरुणा कंसल ऑर्गेनाइजिंग सैक्रेट्री गणित विभाग द्वारा सभी अतिथि, केसर फर्सन, सिसोर्स फर्सन, शिक्षक वर्ग, सिसर्च स्कर्लर व विद्यार्थियों का धन्यवाद प्रेषित किया। इस मौके पर महाविद्यालय स्टाफ से प्रो. सुरेश कुमार, डा. अजय कुमार, प्रो. मंडू गुप्ता, प्रो. एस्सस काबल, डा. रागिनी रर्मा, डा. पूरुषेठ तंकर, प्रो. कल्पना, डा. चूड़ई सिंह प्रो. सिद्धांत, डा. संदीप रत्नोशन मौजूद रहे।



शारदाशार : ऑनलाइन कॉन्फ्रेंस में भाग लेते मुख्यधारीधि सोमनाथ सचदेवा व अन्य।

से जुड़ कर अपनी-अपनी योग्यता अनुसार अपने ज्ञान में वृद्धि कर सकें। कॉन्फ्रेंस समन्वयक डा. जवाहरलाल ने कॉन्फ्रेंस की उपयोगिता, लक्ष्य व विशिष्ट विशेषताओं के बारे में मुख्यधारीधि एवं प्रतिभागियों को बताया कि वह कि विज्ञान एवं तकनीकी के बिना कोई भी देश तब तक नहीं कर सकता। हम अपने दैनिक कार्यों में भी विज्ञान व तकनीकी से जुड़े हुए हैं।

कंसल ऑर्गेनाइजिंग सैक्रेट्री गणित विभाग द्वारा सभी अतिथि, केसर फर्सन, सिसोर्स फर्सन, शिक्षक वर्ग, सिसर्च स्कर्लर व विद्यार्थियों का धन्यवाद प्रेषित किया। इस मौके पर महाविद्यालय स्टाफ से प्रो. सुरेश कुमार, डा. अजय कुमार, प्रो. मंडू गुप्ता, प्रो. एस्सस काबल, डा. रागिनी रर्मा, डा. पूरुषेठ तंकर, प्रो. कल्पना, डा. चूड़ई सिंह प्रो. सिद्धांत, डा. संदीप रत्नोशन मौजूद रहे।

कंसल ऑर्गेनाइजिंग सैक्रेट्री गणित विभाग द्वारा सभी अतिथि, केसर फर्सन, सिसोर्स फर्सन, शिक्षक वर्ग, सिसर्च स्कर्लर व विद्यार्थियों का धन्यवाद प्रेषित किया। इस मौके पर महाविद्यालय स्टाफ से प्रो. सुरेश कुमार, डा. अजय कुमार, प्रो. मंडू गुप्ता, प्रो. एस्सस काबल, डा. रागिनी रर्मा, डा. पूरुषेठ तंकर, प्रो. कल्पना, डा. चूड़ई सिंह प्रो. सिद्धांत, डा. संदीप रत्नोशन मौजूद रहे।



## Details of Chief Guest/Resource Persons/Chairpersons of ICAST-22

S. No	Name	Role	Email Address	Phone number
1	Prof. S.N. Sachdeva, VC, KUK	Inaugural		
2	Dr. Chandan Ghosh, UMass, USA	Keynote	cghosh@umass.edu, chandabindu@gmail.com	+16313728150
3	Dr. Krishan Kant Gupta, ACB, Faridabad	Chairperson	<kkant67@gmail.com>	9212086060
4	Prof. Neera Raighav	Resource person	Nraghav.chem@gmail.com	9896918277
5	Dr. Anjana Jain, CSIR-NAL, Bengaluru	Resource Person	<anjana.jainnal@gmail.com>	9448682877
6	Prof. Manish K Kashyap, JNU, New Delhi	Chairperson	<mkkashyap@jnu.ac.in>	9467210306
7	Prof. Mohamad Yusuf, Punjab University, Patiala	Chairperson	yusuf_sah04@yahoo.co.in	+91-9465440078
8	Dr. Ajay Kumar Garg, I.B. (PG) College Panipat	Chairperson	ajaygarg1965@gmail.com	<b>9896252349,</b> <b>9671602266</b>
9	Dr. Deependra Tyagi Southern University of Science and Technology Canada	Resource Person	<deependratyagi@gmail.com>	(+86)18651621300 9212272500
10	Prof. Rajender Nath, Dept. of CSA, KU, Kurukshetra	Resource Person	math@kuk.ac.in	9896084060
11	Dr. R P Singh, GMN College Ambala Cantt	Chairperson	rajps7762@gmail.com	<b>+919896202266</b>
12	Dr. Brij Mohan, Jimeti University, Xiamen China	Resource Person	brizharry17@outlook.com>	9812538009
13	Prof. Ashish Arora	Resource Person	drashish10@hotmail.com	9478098067
14	Prof. Fakir Chand, KUK	Chair Person	fcchand@kuk.ac.in	<b>9466481420</b> <b>9316830130</b>
15	Dr. Rajneesh Kumar, KUK	Chair Person	rajneesh_kuk@rediffmail.com	9416120992
16	Dr. Vishal Gupta, MMU Mullana	Chairperson	v.gupta@mmumullana.org	+91 90343 43050
17	Dr. Vivek Sharma, JMIEETI, Radaur	Chair Person	director@jmiet.edu.in	8295905215
18	Prof. (Dr.) Kuldeep Singh Dhindsa	Valedictory		90992100013



MA01 - MA15  
Paper ID-I



**INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND  
TECHNOLOGY IN 21ST CENTURY (ICAST-22)  
DAY- 1 (FEBRUARY 26, 2022)**

S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline Subject
MA01	Madhu Aggarwal	Integral Type Contractions and Fixed-Point Results in Generalized Metric Spaces	Madhu Aggarwal	Department of Mathematics, Vash College, Rohtak-124001(INDIA)	Maths
MA02	Sanjay Kumar	Deformation in fluid saturated porous medium underlying a inviscid fluid layer	Sanjay Kumar	Department of Mathematics, R.K.S.D. College, Kaithal, Haryana, India	Maths
MA03	Vishakha Gupta	Effects of porosity on wave propagation in piezoelectric materials having crystal symmetry 4, 4mm, 422	Vishakha Gupta	Department of Mathematics, Dyal Singh college Karnal	Maths
MA04	Pooja Dhawan	An Overview of the Development of Fixed Point Theory	Pooja Dhawan	Department of Mathematics & Humanities, Maharishi Markandeshwar (Deemed To Be University), Mullana, Ambala (Haryana), India	Maths
MA05	Shakuntla Singla	An Overview: Reliability, Availability and Maintainability	Shakuntla Singla	Maharishi Markandeshwar Deemed to be University, Mullana	Maths
MA06	Rakesh Kumar	Some concepts related to fuzzy information measures with applications in diverse decision-making problems	Rakesh Kumar	Department of Mathematics, Dr. B. R. Ambedkar, Govt college, Kaithal (Haryana) 132027, India	Maths
MA07	Nidhi Sharma	Mathematical modelling of wave propagation at human Muscle-compact bone	Nidhi Sharma	Department of Mathematics, Maharishi Markandeshwar University (MMDU) Mullana (Ambala)- Haryana	Maths





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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
MA08	Secma Bansal	An application of biofluid mechanics: Blood flow in a stenosed artery	Secma Bansal	Deptt. of Mathematics, Vaish College, Bhiwani, Haryana	Maths
MA09	Jonty Jindal and Vishal Gupta	Some Novel Fixed Point Outcomes in Fuzzy Metric Spaces via Common property (E.A)	Jonty Jindal	Department of Mathematics, Maharishi Markandeshwar (Deemed to be University) Mullana, Ambala, Haryana, India	Maths
MA10	Monika	A Reliability Model with Conditional Warranty and Consideration of Insurance with Depreciation	Monika	Department of Mathematics, Kurukshetra University Kurukshetra, Haryana, 136118	Maths
MA11	Rajeev Kumar , Shalu Saini, Rahul	Traveling Wave Solutions Of Fornberg-Whitman Equation by Exp(- $\phi(\xi)$ ) Expansion Method	Rajeev Kumar, Shalu Saini	Departement of Mathematics, Maharishi Markandeshwar University, Mullana, Ambala-133001(Haryana), India	Maths
MA12	Hema Sukhija	Review paper on different theories of thermoelasticity applied on porous- piezo materials	Hema Sukhija	Department of Mathematics, Arya Kanya Mahavidyalya, Shahabad (Markanda), India	Maths
MA13	Renu Rani, Jagdish Nandal and Anil Kumar <sup>3</sup>	Deformations in Two Monoclinic Welded Half-Spaces due to Variable Strike-Slip Fault	Renu Rani	Assistant Professor, G. V. M. Girls College (Sonepat) Professor, Department of Mathematics, Maharshi Dayanand University (Rohtak) <sup>3</sup> Associate Professor, Pt. N.R.S. Govt. College (Rohtak)	Maths





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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
MA14	Anchal Sharma, Praveen Ailawalia	Thermoelastic interactions in Functionally Graded Micropolar thermoelastic medium possessing cubic symmetry	Anchal Sharma	Department of Mathematics and Humanities, Maharishi Markandeshwar University (deemed to be) Mullana, Haryana, India	Maths
MA15	Priyanka and Praveen Ailawalia	Effect of variable thermal conductivity in a Generalized Thermo-micro stretch Elastic Solid under Green Naghdi Theory	Priyanka	Department of Mathematics, I.G.N College, Ladwa, Haryana, India. Research Scholar, Department of Mathematics and Humanities, Maharishi Markandeshwar (Deemed to be University) Mullana-Ambala, Haryana-133207, India. Department of Mathematics and Humanities, Maharishi Markandeshwar (Deemed to be University) Mullana-Ambala, Haryana-133207, India	Maths





**INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND  
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DAY - 2 (FEBRUARY 27, 2022)**

Paper ID-2 MA16 to MA 34

S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
MA16	Nitika Garg Vishal Gupta	Role of Mathematics in Science and Technology	Nitika Garg	Maharishi Markandeshwar (Deemed to be University) Mullana Distt. Ambala , Haryana	Maths
MA17	Aarti Saini Deepak Gupta	Analysis of Complex Priority Bi-Series Bulk Queue Network	Aarti Saini	Maharishi Markandeshwar (Deemed to be University) Mullana Distt. Ambala , Haryana	Maths
MA18	Sangeeta	Analysis of Serial Queues linked with Non-Serial Service Channels Characterized by feedback and Customers' behavior	Sangeeta	Maharishi Markandeshwar (Deemed to be University) Mullana Distt. Ambala , Haryana	Maths
MA19	Shilpa Rani Shakuntla Singla	An Overview :K:N::G susceptibility analysis using RPGT	Shilpa Rani	Reaseacher Scholar Maharishi Markedeshwar Deemed to be University Mullana Associate Professor Maharishi Markedeshwar Deemed to be University, Mullana	Maths
MA20	Prabhjot Kaur	Role of Mathematics in Science, Technology and other Fields	Prabhjot Kaur	Dayanand Mahila Mahavidyalaya. Kurukshetra	Maths
MA21	Diksha Mangla Shakuntla Singla	Reliability – A whole World for a System	Diksha Mangla	Reaseacher Scholar Maharishi Markedeshwar Deemed to be University Mullana Associate Professor Maharishi Markedeshwar Deemed to be University, Mullana	Maths
MA22	Sujata Goyal	A generalization of fixed point theorem of Reich	Sujata Goyal	GMN College Ambala Cantt	Maths
MA23	Renu Bala	An Introduction to Development of the Theory of Frames	Renu Bala	Research Scholar at NIILM University , Kaithal	Maths
MA24	Vandana Saini Deepak Gupta	Application of priority based feedback queue model to passport office system	Vandana Saini	*Research Scholar (Mathematics), MMDU, Mullana **Professor & Head, Deptt. of Mathematics, MMDU, Mullana	Maths





**INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND  
TECHNOLOGY IN 21ST CENTURY (ICAST-22)  
DAY- 2 (FEBRUARY 27, 2022)**

S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
MA25	Komalpreet Kaur Shakuntla Singla	Analytical study of a dairy plant using RPGT	Komalpreet Kaur	Research Scholar Maharishi Markandeshwar Deemed to be University, Mullana Associate Professor Maharishi Markandeshwar Deemed to be University, Mullana	Maths
MA26	Rachna, Shakuntla. A.K.Lal, S.S.Bhatia	Comparative Analysis of A Two Unit Standby System and Three Unit Standby System with installation cost of single unit of double capacity instead of two units.	Rachna	<sup>a</sup> Department of Applied Sciences and Humanities, P.I.E.T, Panipat <sup>b</sup> Department of Mathematics and Humanities, M.M. Deemed to be University, Mullana. Ambala, India <sup>c,d</sup> School of Mathematics, T.I.E.T., Patiala, Punjab, India	Maths
MA27	Tamanna Satish Kumar	A dissimilarity measure based on Fermatean Intuitionistic Fuzzy sets	Tamanna	Deptt.of Mathematics, MMDU, Mullana	Maths
MA28	Anupam Khanna	A study on Free Vibration of Tapered Square Plate	Anupam Khanna	Department of Mathematics, DAV College Sadhaura, Yamunanagar, Haryana, INDIA	Maths
MA29	Narinder Kaur	Theoretical study on thermo-visco- elastic model with clamped ends	Narinder Kaur	Department of Mathematics, Department of Math Stat & amp; Physics, Punjab Agricultural University, India	Maths
MA30	Rupinderjit Kaur Dhanoa	Operator versions of generalized inequalities	Rupinderjit Kaur Dhanoa	Department of Mathematics, Department of Math Stat & amp; Physics, Punjab Agricultural University, India	Maths
MA31	Praveen Ailawalia	Two dimensional analysis in a Microstretch Thermoelastic Mass Diffusion Medium with Dual Phase Lag under laser pulse heating	Praveen Ailawalia	Deptt.of Mathematics, MMDU, Mullana	Maths
MA32	Rozy Gupta	Study on Prevalence of Zinc and Anemia Association in School Children of India	Rozy Gupta	Research Scholar of Mathematics in MM University, Ambala	Maths





**INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND  
TECHNOLOGY IN 21ST CENTURY (ICAST-22)  
DAY - 2 (FEBRUARY 27, 2022)**

S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
MA33	Adesh Kumar Tripathi Vishal Gupta	New Results on Fixed Point in Fuzzy Metric Spaces Using JCLR-property	Adesh Kumar Tripathi	Department of Mathematics, Maharishi Markandeshwar (Deemed to be University) Mullana, Ambala, Haryana, India	Maths
MA34	Gurdas Ram and Vikrant Narwal	Coding Results for a Finite Partition in Product MV-Algebras Corresponding to Tsallis Measure	Vikrant Narwal Gurdas Ram	Department of Mathematics, Maharishi Markandeshwar Deemed to be University, Mullana Ambala, India.	Maths





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DAY- 1 (FEBRUARY 26, 2022)**

S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
CH01	Ms. Indu Ran, Prof. S. G. Warkar and Prof. Anil Kumar	<b>Carboxymethyl Tamarind Gum Based Hydrogels for Drug Delivery Applications</b>	Indu Ran	Department of Applied Chemistry, Delhi Technological University, New Delhi-110042, India	Chemistry
CH02	Abhay Singh	<b>Corrosion inhibition of 304 stainless steel using neem leaves extract in sulphuric acid solution</b>	Abhay Singh	Department of Chemistry, K.I.P. College, Rewari, India	Chemistry
CH03	Neha Aggarwal	<b>Chemistry in Everyday's Life: A Brief Overview</b>	Neha Aggarwal	Department of Chemistry, Gandhi Memorial National College, Ambala Cantt. 133001, Haryana	Chemistry
CH04	Manju Singh	<b>High Pressure Processing Treatments For Improved Food Quality</b>	Manju Singh	KVA DAV College for women, Karnal 132001	Chemistry
CH05	Ramesh Kumar	<b>Proficient Removal of Toxic Dye Contaminants Using Surface Functionalized Magnetite Nanoparticles</b>	Ramesh Kumar	Department of Chemistry, Kurukshetra University Kurukshetra-136119, Haryana (India)	Chemistry
CH06	Jyoti Yadav, Yashwant Kumar, Gayathri S. Singaraju & Shivprasad Patil	<b>Interaction of chloramphenicol with titin I27 probed using single-molecule force spectroscopy</b>	Jyoti Yadav	Department of Chemistry, IISER Pune	Chemistry
CH07	Amit Kumar	<b>Tobacco smoking and its Health impact</b>	Amit Kumar	Department of Chemistry, Indira Gandhi National College, Ladwa, Kurukshetra-136132, (Haryana) India	Chemistry
CH08	Ravish Kumar Chauhan	<b>Testing of adulterants in foods using some common chemicals</b>	Ravish Kumar Chauhan	Department of Chemistry, Indira Gandhi National College, Ladwa, Kurukshetra-136132, (Haryana) India	Chemistry





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DAY- 1 (FEBRUARY 26, 2022)**

S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/Subject
CH09	Rohit & Joginder Singh	Systematic & Improved Tour's method for Graphene oxide; Synthesis & its Characterization	Rohit	Department of Chemistry, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, 133203, Haryana, India	Chemistry
CH10	Santosh Kumar Dubey	Novel metal complexes incorporating bidentate ligands: Synthetic, spectral and structural characterization	Santosh Kumar Dubey	Department of Chemistry, Institute of Integrated and Honors Studies, Kurukshetra University Kurukshetra -136 119 Haryana, India	Chemistry
CH11	Aarti Trehan, Rajesh Trehan	Green Laboratory Practices: Step Towards Proactive Environmental Protection	Aarti Trehan	*Associate Professor, Chemistry Deptt., Arya Kanya Mahavidyalaya, Shahabad (M), Kurukshetra-136135, India **Associate Professor, Chemistry Deptt., SGGSJ Govt. College, Paonta Sahib (H.P.)-173025, India	Chemistry
CH12	Deepak Wadhwa and Vikram Kumar	Socio-economic Consequences of OTC, Unused and Expired Medication: A review	Deepak Wadhwa and Vikram Kumar	<sup>1</sup> Department of Chemistry, CBI.U, Bhiwani, India-127021 <sup>2</sup> Department of Chemistry, I B College, Panipat, Haryana, India-132103	Chemistry
CH13	Pinki and Ashu Chaudhary	Stepwise Synthesis of Heterobimetallic Derivatives of group Four or Fourteen Transition Metal Dichlorides and their Diverse Chemical and Biochemical Studies	Pinki	Department of Chemistry, Kurukshetra University, Kurukshetra, Haryana, India-136119	Chemistry
CH14	Subhash and Ashu Chaudhary	Pharmacologically significant tetraaza Cobalt(II) macrocyclic complexes: Synthesis, spectral studies and comparative biological assessment	Subhash	Department of Chemistry, Kurukshetra University, Kurukshetra, Haryana, India-136119	Chemistry





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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/Subject
CH15	Mamta and Ashu Chaudhary	Synthesis, Spectroscopic Elucidation and Biological Evaluation of Tetraazatetraoxo Metallomacrocycles	Mamta	Department of Chemistry, Kurukshetra University, Kurukshetra, Haryana, India-136119	Chemistry
CH16	Virender, Ashwani Kumar	A Pyrazolo[1,5-a]pyrimidine azo dye based sensor for selective UV-visible and colorimetric detection of Hg <sup>2+</sup> ions	Virender	Department of Chemistry, Kurukshetra University, Kurukshetra, Haryana, India-136119	Chemistry
CH17	Jasbir Singh, Naveen Talniya	Schiff Base Compounds: Synthesis and Application in Biological Activities	Jasbir Singh	Department of Chemistry, Baba Mastnath University, Asthal Bohar, Rohtak-124021	Chemistry
CH18	Meenu Aggarwal, Krishan Kant, Chander Atri and Devender Gehlawat	Highly efficient antimicrobial materials derived from agricultural bio-waste	Meenu Aggarwal	Department of Chemistry, Aggarwal College Ballabgarh, Faridabad, Haryana Department of Physics, Aggarwal College Ballabgarh, Faridabad, Haryana	Chemistry
CH19	Chinky Kochar, Lakhan Taneja, S.Swarupa Tripathy	Low cost highly efficient biochar based novel composite for removal of heavy metal from water	Chinky Kochar	Academy of Scientific and Innovative Research (AcSIR), Ghaziabad 201002, India CSIR-National Physical Laboratory, Dr. K. S. Krishnan Marg, New Delhi 110012, India	Chemistry
CH20	Lakhan Taneja, Chinky Kochar, S.Swarupa Tripathy	A Low cost renewable bio-waste adsorbent for removal of fluoride from drinking water	Lakhan Taneja	Academy of Scientific and Innovative Research (AcSIR), Ghaziabad 201002, India CSIR-National Physical Laboratory, Dr. K. S. Krishnan Marg, New Delhi 110012, India	Chemistry
CH21	Ankit and Surender Kumar	5'-silylated containing 3'-1,2,3-triazole-2'-deoxythymidine synthesized, characterize and their evaluation as anticancer agents	Ankit	Bioorganic Laboratory, Department of Chemistry, Institute of Integrated & Honors Studies (IHS), Kurukshetra University, Kurukshetra-136 119, Haryana	Chemistry
CH22	Parveen Kumari	Advanced Applications of Ferrite Nanoparticles	Parveen Kumari	Department of Chemistry, S. D. (PG) College, Panipat	Chemistry





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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
CH23	Priya Phogat, V.B Taxak, R. K. Malik	<b>Investigation into structural and optical properties of green emanating Er<sup>3+</sup> doped Ba<sub>2</sub>YV<sub>3</sub>O<sub>11</sub> nanophosphor</b>	Priya Phogat	Department of Chemistry, Maharshi Dayanand University, Rohtak - 124001, India	Chemistry
CH24	Shayoraj, Shivani, Satish kumar	<b>Study of Some Biobased acrylate and its Applications</b>	Shayoraj, Shivani, Satish kumar	Research Scholar, Department of Chemistry, Kurukshetra University, Kurukshetra, India- 136119 Research Scholar, Department of Chemistry, Kurukshetra University, Kurukshetra, India- 136119 Assistant Professor (Chemistry), Institute of Integrated & Honors Studies, Kurukshetra University, Kurukshetra, India-136119	Chemistry
CH25	Geeta, Satish kumar	<b>Phosphorylated Chitosan: Synthesis and Characterization</b>	Geeta	Research Scholar, Department of Chemistry, Kurukshetra University, Kurukshetra, India- 136119 Assistant Professor (Chemistry), Institute of Integrated & Honors Studies, Kurukshetra University, Kurukshetra, India-136119	Chemistry





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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
PH01	Devender Gehlawat	Electrical conductivity of gamma-rays exposed silver nanowires	Devender Gehlawat	Department of Physics, Aggarwal College Ballabgarh, Faridabad Haryana	Physics
PH02	Ankur Taya Manish K. Kashyap	Structural, Electronic and Optical studies of mixed Lead, Tin, and Germanium hybrid halide perovskites for photovoltaic applications	Ankur Taya	Department of Physics, Mukand Lal National College, Yamuna Nagar-136119 (Haryana), India Department of Physics, Kurukshetra University, Kurukshetra 136119, Haryana, India School of Physical Sciences, Jawaharlal Nehru University, New Delhi 110070, India	Physics
PH03	Neetika and Supriya Goyal	Review of rare earth doped nanophosphors based on combustion synthesis method	Neetika and Supriya Goyal	PG Department of Physics, G.S.S.D.G.S. Khalsa College, Patiala-147001, Punjab	Physics
PH04	Devinder Singh	Fourier Transform Infrared Spectrum of 1,8-Diiodooctane	Devinder Singh	Department of Physics, Dyal Singh College, Karnal – 132001, Haryana, India	Physics
PH05	Poonam Pahuja	Multiferroic Composites: Need in Present Technology	Poonam Pahuja	G.G.D.S.D. College, Palwal, Haryana, India	Physics
PH06	R.I. Dhiman, Krishan Kumar, Virender Singh and Suresh Kumar	Impact of Titanium Dioxide (TiO <sub>2</sub> ) Modification on its photocatalytic Application to Pollution Treatment-A Review	R.I. Dhiman Krishan Kumar	Department of Physics, Sanatan Dharma College, Ambala Cantt.-133001, India Department of Electronics Science, Kurukshetra University, Kurukshetra-136119, India	Physics





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DAY- 1 (FEBRUARY 26, 2022)**

PH07	Sohan Lal* and Deepika	Study of ion irradiation on optical properties of liquid crystalline polyurethane	Sohan Lal	Department of Physics, National Institute of Technology, Kurukshetra, India	Physics
PH08	S. K. Pandey	MoS <sub>2</sub> monolayers sols preparation and it's optical characterization for solar applications	S. K. Pandey	Dept. of Physics, G.M.N. College, Ambala Cantt - 133001, India	Physics
PH09	Sonia	Importance of Science and Technology in Disaster Risk Reduction	Sonia	Department of Physics, I.B.P.G.College, Panipat, Haryana	Physics
PH10	Richa, Rajive Kumar	Theoretical Estimation of L X-Ray Fluorescence Cross-Sections for <sup>5</sup> Sb and <sup>5</sup> Te at Excitation Energy of 6 keV and 8 keV	Richa	Department of Physics, NIIM University, Kaithal (Haryana)	Physics
PH11	Priyanka, Jawahar Lal and Savita Gill <sup>(*)</sup>	Signal to Noise Ratio in Coherent anti-Stokes Raman Scattering(CARS) Optical Process	Priyanka	* Department of Applied Science, University Institute of Engineering and Technology, Kurukshetra University Kurukshetra,136119, India Department of Physics, Markanda National College Shahabad Markanda, 136135, India	Physics
PH12	Minakshi Devendra Mohan	A Review: On Effect of Different types of doping on Zinc Oxide Thin Films	Minakshi	Department of Physics, Guru Jambheshwar University of Science and Technology, Hisar	Physics
PH13	Poonam Siwatch	Effect of molarity of solutes on the structure and morphology of Nickel Cobalt Oxide nanoparticles	Poonam Siwatch	Department of Physics, Arya Kanya Mahavidyalaya, Shahabad(M), Haryana, 136135, India	Physics





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PH14	Priya Rani, Ranjeet Dalal, Sunita Srivastava	A DFT study of surface passivation of Graphene Quantum Dots	Priya Rani	Department of Physics, Guru Jambheshwar University of Science and Technology, Hisar 125001, India Department of Physics, Central University of Haryana, Jant-Pali, Mahendergarh 123029, India Department of Physics, Panjab University, Chandigarh 160014, India	Physics
PH15	Gurvinder, Divya Gupta, Manu Bura, Nisha Malik, Arun Kumar and Sanjeev Aggarwal	Structural and Optical Properties of Ge Thin Film Grown on Glass by RF Sputtering	Gurvinder Manu Bura	Department of Physics, Kurukshetra University, Kurukshetra, 136119, India	Physics
PH16	Shikha Bhatt and B.C. Chanyal	Rotational analogous of Quaternionic Dirac equation in electromagnetic field	Shikha Bhatt	Department of Physics G. B. Pant University of Agriculture and Technology, Pantnagar- 263145, Uttarakhand, India	Physics





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PH17	Mandeep Kaur , Gurpreet Kaur, Arvind Kumar Jain, Harsh Mohan, and Parjit S. Singh	Angular distribution of electrons elastically scattered from methane molecule	Mandeep Kaur	Department of Physics, Guru Nanak Khalsa College, Yamuna Nagar, 135 001, HR, India Department of Physics, S. A. A Govt. P.G. College, Kalka 133 302, HR, India Department of Physics, M. L. N. College, Yamuna Nagar, 135 001, HR, India Department of Physics, Punjabi University, Patiala 147 002, Pb, India Department of Physics (retired), M. L. N. College, Yamuna Nagar, 135 001, HR, India Department of Physics (retired), Punjabi University, Patiala 147 002, Pb, India	Physics
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*Paper-I D -I*

S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
PH01	Devender Gehlawat	Electrical conductivity of gamma-rays exposed silver nanowires	Devender Gehlawat	Department of Physics, Aggarwal College Ballabgarh, Faridabad Haryana	Physics
PH02	Ankur Taya, Manish K. Kashyap	Structural, Electronic and Optical studies of mixed Lead, Tin, and Germanium hybrid halide perovskites for photovoltaic applications	Ankur Taya	Department of Physics, Mukand Lal National College, Yamuna Nagar-136119 (Haryana), India Department of Physics, Kurukshetra University, Kurukshetra 136119, Haryana, India School of Physical Sciences, Jawaharlal Nehru University, New Delhi 110070, India	Physics
PH03	Neetika and Supriya Goyal	Review of rare earth doped nanophosphors based on combustion synthesis method	Neetika and Supriya Goyal	PG Department of Physics, G.S.S.D.G.S. Khalsa College, Patiala-147001, Punjab	Physics
PH04	Devinder Singh	Fourier Transform Infrared Spectrum of 1,8-Diiodooctane	Devinder Singh	Department of Physics, Dyal Singh College, Karnal - 132001, Haryana, India	Physics
PH05	Poonam Pahuja	Multiferroic Composites: Need in Present Technology	Poonam Pahuja	G.G.D.S.D. College, Palwal, Haryana, India	Physics
PH06	R.L. Dhiman, Krishan Kumar, Virender Singh and Suresh Kumar	Impact of Titanium Dioxide (TiO <sub>2</sub> ) Modification on its photocatalytic Application to Pollution Treatment-A Review	R.L. Dhiman, Krishan Kumar	Department of Physics, Sanatan Dharma College, Ambala Cantt.-133001, India Department of Electronics Science, Kurukshetra University, Kurukshetra-136119, India	Physics





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PH07	Sohan Lal* and Deepika	Study of ion irradiation on optical properties of liquid crystalline polyurethane	Sohan Lal	Department of Physics, National Institute of Technology, Kurukshetra, India	Physics
PH08	S. K. Pandey	MoS <sub>2</sub> monolayers sols preparation and it's optical characterization for solar applications	S. K. Pandey	Dept. of Physics, G.M.N. College, Ambala Cantt - 133001, India	Physics
PH09	Sonia	Importance of Science and Technology in Disaster Risk Reduction	Sonia	Department of Physics, L.B.P.G.College, Panipat, Haryana	Physics
PH10	Richa, Rajive Kumar	Theoretical Estimation of L X-Ray Fluorescence Cross-Sections for <sup>5</sup> Sb and <sup>5</sup> Te at Excitation Energy of 6 keV and 8 keV	Richa	Department of Physics, NIILM University, Kaithal (Haryana)	Physics
PH11	Priyanka, Jawahar Lal and Savita Gill(*)	Signal to Noise Ratio in Coherent anti-Stokes Raman Scattering(CARS) Optical Process	Priyanka	Department of Applied Science, University Institute of Engineering and Technology, Kurukshetra University Kurukshetra, 136119, India	Physics
PH12	Minakshi Devendra Mohan	A Review: On Effect of Different types of doping on Zinc Oxide Thin Films	Minakshi	Department of Physics, Guru Jambheshwar University of Science and Technology, Hisar	Physics
PH13	Poonam Siwarch	Effect of molarity of solutes on the structure and morphology of Nickel Cobalt Oxide nanoparticles	Poonam Siwarch	Department of Physics, Arya Kanva Mahavidyalaya, Shahabad(M), Haryana, 136135, India	Physics



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PHT4	Priya Rani, Ranjeet Dalal, Sumita Srivastava	A DFT study of surface passivation of Graphene Quantum Dots	Priya Rani	Department of Physics, Guru Jambheshwar University of Science and Technology, Hisar 125001, India Department of Physics, Central University of Haryana, Jant-Pali, Mahendergarh 123029, India Department of Physics, Panjab University, Chandigarh 160014, India	Physics
PH15	Gurvinder, Divya Gupta, Manu Bura, Nisha Malik, Arun Kumar and Sanjeev Aggarwal	Structural and Optical Properties of Ge Thin Film Grown on Glass by RF Sputtering	Gurvinder Manu Bura	Department of Physics, Kurukshetra University, Kurukshetra, 136119, India	Physics
PH16	Shikha Bhatt and B.C. Chanyal	Rotational analogous of Quaternionic Dirac equation in electromagnetic field	Shikha Bhatt	Department of Physics, G. B. Pant University of Agriculture and Technology, Pantnagar- 263145, Uttarakhand, India	Physics





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<b>PH14</b>	Priya Rani, Ranjeet Dabhal, Smita Srivastava	A DFT study of surface passivation of Graphene Quantum Dots	Priya Rani	Department of Physics, Guru Jambheshwar University of Science and Technology, Hisar 125001, India Department of Physics, Central University of Haryana, Jant-Pali, Mahendergarh 123029, India Department of Physics, Panjab University, Chandigarh 160014, India	Physics
<b>PH15</b>	Gurvinder, Divya Gupta, Manu Bura, Nisha Malik, Arun Kumar and Sanjeev Aggarwal	Structural and Optical Properties of Ge Thin Film Grown on Glass by RF Sputtering	Gurvinder Manu Bura	Department of Physics, Kurukshetra University, Kurukshetra, 136119, India	Physics
<b>PH16</b>	Shikha Bhatt and B.C. Chanyal	Rotational analogous of Quaternionic Dirac equation in electromagnetic field	Shikha Bhatt	Department of Physics, G. B. Pant University of Agriculture and Technology, Pantnagar- 263145, Uttarakhand, India	Physics



**INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE AND  
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DAY-2 (FEBRUARY 27, 2022)**

S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/Subject
CH26	Garima Sumran and Suresh Kumar	Design, synthesis and biological evaluation of novel 4-aminopyrazolo[3,4-b]pyridine derivatives as potential antimicrobial agents	Garima Sumran	Department of Chemistry, D. A. V. College (Lahore), Ambala City 134003, Haryana, India Department of Chemistry, S.U.S. Govt. College, Matak Majri, Indri-132041, Haryana, India	Chemistry
CH27	Mandeep Singh and Nitin Kumar Verma	Spectroscopic Techniques: Future of Research	Mandeep Singh, Nitin Kumar Verma	Assistant Professor, Rajiv Gandhi Govt. College Saha (Ambala)	Chemistry
CH28	Kiran Singh, Manish Kumar	Synthesis, characterization, magnetic, thermal and biological properties of the Schiff base, 4-(5-Bromothiophene-2-carboxylideneamino)-5-mercapto-3-methyl-1,2,4-triazole and its Co(II), Ni(II), Cu(II), Zn(II) metal complexes	Manish Kumar	Department of Chemistry, Kurukshetra University, Kurukshetra-136119, Haryana Department of Chemistry, Vaish College, Bhiwani-127021, Haryana	Chemistry
CH29	Deepak Kumar Aneja	On Water Synthesis of Heterocyclic Compounds Using Organiodine Reagents	Deepak Kumar Aneja	Department of Chemistry, Chaudhary Bansi Lal University, Bhiwani-127021, Haryana	Chemistry
CH30	Minakshi	A Review of lockdown imposed by central air pollution control board	Minakshi	Govt. P.G. Nehru College Jhajjar	Chemistry
CH31	Alpha Gupta	A Review of Pyrolysis as a Technology of Biomass Conversion for production of Biofuels	Alpha Gupta	Department of Chemistry, F.C. College for Women, Hisar	Chemistry

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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/Subject
CH32	Rinku Soni, Mayank Kinger, Deepak Kumar Aneja	Aqueous Mediated Reactions Involving Hypervalent Iodine Reagents	Rinku Soni	Department of Chemistry, Chaudhary Bansi Lal University, Bhiwani, Haryana. 127021	Chemistry
CH33	Priyanka and Gurjaspreet Singh	Biphenyl conjoined tetrazole appended organosilatrane as a dual chemosensor for Fe(III) and Cu(II) ions	Priyanka	Department of Chemistry, Panjab University, Chandigarh-160014, India	Chemistry
CH34	Amisha and Sanjiv Arora	Different Types of Thermal Analysis and their Widespread Applications	Amisha	Department of Chemistry, Kurukshetra University (136119), Haryana, India	Chemistry
CH35	Surila	A Review of Air Quality Index during post vaccination period	Surila	Govt P.G Nehru College Jhajjar	Chemistry
CH36	Savita Kumari, Sunil Kumar, and Praveen Kumar Gupta	Aspects of immobilized catalyst on polymer support	Savita Kumari	Department of Chemistry, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala-133207	Chemistry
CH37	Shiwani Choudhary, Hardeep Anand, Prakash Chand, Kajal Samdhyan	The Electrode Materials for high performance Supercapacitor Applications: A Review	Shiwani Choudhary	Department of Chemistry, Kurukshetra University, Kurukshetra 136119, India Department of Physics, National Institute of Technology, Kurukshetra 136119, India	Chemistry
CH38	Monika Sihag, Mayank Kinger, Deepak Kumar Aneja	Advances in Synthesis and Applications of Hypervalent Iodine Chemistry	Monika Sihag	Department of Chemistry, Chaudhary Bansi Lal University, Bhiwani 127021, Haryana	Chemistry
CH39	Vanita, Usha Gupta	Role of Cyclodextrin Polymers in the extraction of Organic Pollutants	Vanita	Department of Chemistry, Punjab University College, Chumni Kalan	Chemistry





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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/Subject
CH40	Sandeep Malik, Deepak Kumar Aneja	Synthesis and Biological Importance of 1,2,4-Triazole Derivatives	Sandeep Malik	Department of Chemistry, Chaudhary Bansi Lal University, Bhiwani, Haryana 127021	Chemistry
CH41	Vandana Yadav, Jyoti Sharma	A Renewable Fuel – Biodiesel	Vandana Yadav	Department of Chemistry, Maharishi Markandeshwar (Deemed to be University), Mullana-133207 (Ambala), Haryana, India	Chemistry
CH42	Anup Dhiman	Food Energy and Nutrition for Improved Sports Performance	Anup Dhiman	Lovely Professional University, Jalandhar	Health and Physical Education
CH43	Anjali Gupta	Analysing Renewable and Non-Renewable Energy Sources for Environmental Quality in India	Anjali Gupta	Department of Environment Studies, I.B. (PG) College, Panipat (132103), Haryana, India	Environment Studies
CH44	Vikram Singh Ritu	English Language and Science and Technology: Some Ideas	Vikram Singh Ritu	Assistant Professor, Department of English, Kurukshetra University, Kurukshetra Assistant Professor, Department of English, Dayanand Mahila Mahavidyala, Kurukshetra	English
CH45	Pawan Kumar	Morphological Variations of Human Ear: An Aid to Personal Identification	Pawan Kumar	Assistant Professor, Department of Zoology, I.B.(PG) College, Panipat	Zoology
CH46	Simran Singh, Ila Joshi	Effect of processing in enhancing Vitamin D2 content of white button mushrooms	Simran Singh	IIS (deemed to be University), Jaipur, India	Home Science
CH47	Sruthi Rajan	Biochar - eco-friendly adsorbent For the removal of colorants & pesticide	Sruthi Rajan	Department of Food Technology, Saintgits College of Engineering, Kottayam, Kerala	Food Technology
CH48	Vyoma Agarwal and Ila Joshi	Development of nutrient dense ready to cook savoury snack for elderly	Vyoma Agarwal	IIS (deemed to be University), Jaipur, India	Home Science





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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/Subject
CH40	Sandeep Malik, Deepak Kumar Aneja	Synthesis and Biological Importance of 1,2,4-Triazole Derivatives	Sandeep Malik	Department of Chemistry, Chaudhary Bansi Lal University, Bhiwani, Haryana 127021	Chemistry
CH41	Vandana Yadav, Jyoti Sharma	A Renewable Fuel – Biodiesel	Vandana Yadav	Department of Chemistry, Maharishi Markandeshwar (Deemed to be University), Mullana-133207 (Ambala), Haryana, India	Chemistry
CH42	Anup Dhiman	Food Energy and Nutrition for Improved Sports Performance	Anup Dhiman	Lovely Professional University, Jalandher	Health and Physical Education
CH43	Anjali Gupta	Analysing Renewable and Non-Renewable Energy Sources for Environmental Quality in India	Anjali Gupta	Department of Environment Studies, I.B. (PG) College, Panipat (132103), Haryana, India	Environment Studies
CH44	Vikram Singh Ritu	English Language and Science and Technology: Some Ideas	Vikram Singh Ritu	Assistant Professor, Department of English, Kurukshetra University, Kurukshetra Assistant Professor, Department of English, Dayanand Mahila Mahavidyala, Kurukshetra	English
CH45	Pawan Kumar	Morphological Variations of Human Ear: An Aid to Personal Identification	Pawan Kumar	Assistant Professor, Department of Zoology, I.B.(PG) College, Panipat	Zoology
CH46	Simran Singh, Ila Joshi	Effect of processing in enhancing Vitamin D2 content of white button mushrooms	Simran Singh	IIS (deemed to be University), Jaipur, India	Home Science
CH47	Sruthi Rajan	Biochar - eco-friendly adsorbent For the removal of colorants & pesticide	Sruthi Rajan	Department of Food Technology, Saintgits College of Engineering, Kottayam, Kerala	Food Technology
CH48	Vyoma Agarwal and Ila Joshi	Development of nutrient dense ready to cook savoury snack for elderly	Vyoma Agarwal	IIS (deemed to be University), Jaipur, India	Home Science





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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/Subject
CH49	Narendra R Kamble	Ni(CIO 4) 2. 6H2O Catalyzed Synthesis of benzylpyrazolylcoumarin scaffolds via one pot multicomponent reaction in ethanol at room temperature	Narendra R Kamble	PDEA's Waghire College, Saswad. Tq. Purandar Dist. Pune (Maharashtra) India- 412 301	Chemistry
CH50	Amit Sharma, S. Kumar and S. K. Raghuvanshi	Effect of Dietary Probiotics ( <i>Lactobacillus acidophilus</i> ) on the Growth Performance of Labeo Rohita	Amit Sharma	P. G. Department of Zoology, Bareilly College MJP Rohilkhand University, Bareilly, UP, India S.K Raghuvanshi, Department of Zoology, Bareilly College, Bareilly, Uttar Pradesh, India	Zoology
CH51	Seema Gupta	Impact of potassium, gibberellic acid and cytokinin on wheat under saline conditions	Seema Gupta	F.C. College for Women, Hisar	Botany
CH52	Sudeep Dhillon, Mayank Kinger	Synthesis And Biological Importance of Radiolabelled 1,3-Diaryl-2- Propen-1-Ones	Sudeep Dhillon	Department of Chemistry, Chaudhary Bansri Lal University, Bhiwani, Haryana	Chemistry
CH53	Neha Rani, Deepak Kumar Aneja, Mayank Kinger	Various Transformations Involving Combined Approach of Hypervalent Iodine Reagents and Transition Metals	Neha Rani	Department of Chemistry, Chaudhary Bansri Lal University, Bhiwani, Haryana-127021	Chemistry
CH54	Varsha Nigam	Phytochemicals and pharmacological properties of Some medicinal plants	Varsha Nigam	Dept. of Botany, Guru Nanak Khalsa College, Yamuna Nagar- 135001, Haryana, India	Botany





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CH55	Preeti Sharma Ritu Pradhan	Development and standardization of value added, millets based nutritionally rich ragi based pancake(puda)	Preeti Sharma	Lecturer, Home Science dept. Pt. Chiranjii Lal Sharma Govt. College, Karnal Associate Professor and Head, Foods and Nutrition dept., Government Home Science College, Chandigarh	Home Science
CH56	Seema Rani, Neera Raghav and Sanjiv Arofa	Recent advances in Water Hyacinth Fiber, Carboxymethyl Cellulose, Poly(Vinyl Alcohol) based composite thin films and their biodegradability	Seema Rani	Department of Chemistry, Dr.B.R.A. Govt.(PG) College, Jagdishpura, Kaithal Department of Chemistry, Kurukshetra University, Kurukshetra-136119	Chemistry
CH57	Poonam Yadav , Hiteshi Tandon , Babita Malik, Vandana Suhag and Tannoy Chakraborty	A Quest for the Universal Atomic Radii	Poonam Yadav	Department of Chemistry, Manipal University Jaipur, Jaipur 300307, Rajasthan, India DIT University, Dehradun 248009, India Department of Chemistry and Biochemistry, School of Basic Sciences and Research, Sharda University, Greater Noida 201310, Uttar Pradesh, India	Chemistry
CH58	Vanita Kumari Sapra, Anju	New Simple Reservoirs to store Hydrogen: Nano Chocolates	Vanita Kumari Sapra, Anju	Goswami Ganesh Dutt Sanatan Dharam College, Palwal	Chemistry



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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
CS01	Ashwani Gupta & Vinay Bharti	Effectiveness of Online Education during Covid-19 Pandemic	Ashwani Gupta, Vinay Bharti	Department of Computer Science, I.B. (PG) College, Panipat (132103), Haryana, India	Computer Science
CS02	Ritika	Impact of ICT Technologies in Education during Covid-19	Ritika	Assistant Professor, Adarsh Mahila Mahavidyalaya, Bhiwani	Computer Science
CS03	Amandeep Makkar, Mukesh Kumar and Sunil Taneja	Performance Assessment of DSR & AODV using Throughput, Packet Loss and Normalized Routing Load	Amandeep Makkar, Sunil Taneja	Research Scholar, Department of Computer Science & Applications, NIILM University, Kaithal, India Professor, Department of Computer Science & Applications, NIILM University, Kaithal, India Associate Professor, Department of Computer Science, Govt. College, Aharwala (Bilaspur), India	Computer Science
CS04	Monika Monika	Impacts and Adaptation of ICT during Covid-19 pandemic	Monika	Assistant Professor, P. I. G. C. W., JINID Assistant Professor, Govt. college, Rewari	Computer Science
CS05	Chirag Chanana	Role of artificial intelligence during covid-19 pandemic	Chirag Chanana	University Institute of Engineering and Technology, Panjab University, Chandigarh	Computer Science
CS06	Ritu Bhardwaj, Nitika Goel	Role of ICT during COVID-19	Ritu Bhardwaj, Nitika Goel	I.B. (PG) College, Panipat	Computer Science
CS07	Shejia and Pawan Kumar	LFC Parametric tuning with different Meta Heuristics Optimization Algorithms	Shejia	Department of Computer Science and Application, NIILM University, Kaithal, India	Computer Science
CS08	Sarabjeet	Role of ICT during covid-19 pandemic	Sarabjeet	Sai College of Education, Sardulapur	Education
CS09	Gaurav	Role of ICT During COVID	Gaurav	Shri A.B.T.N. School Thol	Maths
CS11	Aman Deep	ICT use during COVID-19	Aman Deep	UIET, Kurukshetra University, Kurukshetra	Electrical Engg
CS12	Neetu Manocha	Role of ICT	Neetu Manocha	Assistant Professor at I.B. PG College, Panipat (Haryana) - 132103	Computer Science

*Presented  
on 2-2-22*

*CS01 to CS12 Paper ID-I*

*Physics*





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S. No.	Name of Authors	Title of Abstract	Name of Presenter	Name of Institute	Discipline/ Subject
CS13	Poonam Rani	Role of ICT in Online Learning Platform during COVID-19	Poonam Rani	Department of Computer Science Dr. B.R. Ambedkar Govt. College, Kaithal, Haryana	Computer Science
CS14	Parminder Kaur	Work from Home: the new Culture	Parminder Kaur	Department of Computer Science Dr. B.R. Ambedkar Govt. College, Kaithal, Haryana	Computer Science