



**A REPORT OF**

**2024 ABVV-JNVU-AIMT  
INTERNATIONAL CONFERENCE**

**ON**

**INNOVATIVE RESEARCH IN SCIENCE, MANAGEMENT AND TECHNOLOGY  
(ICIRSMT)**

**JOINTLY ORGANIZED BY**

**DEPARTMENT OF COMPUTER SCIENCE AND APPLICATION  
ATAL BIHARI VAJPAYEE VISHWAVIDYALAYA, BILASPUR (C.G)**

**AND**

**INSTITUTE OF EVENING STUDIES  
JAI NARAYAN VYAS UNIVERSITY, JODHPUR, RAJSTHAN, INDIA**

**IN ASSOCIATION WITH**

**AMERICAN INSTITUTE OF MANAGEMENT AND TECHNOLOGY (AIMT)  
USA**

**AND**

**UNIVERSITY OF MARYLAND EASTERN SHORE, USA**

**AND**

**MARYAM ABACHA AMERICAN UNIVERSITY OF NIGERIA, NIGERIA**

**DATE: JANUARY 5-7, 2024**

**PATRON**

**PROF. A.D.N. BAJPAI**

HON'BLE VICE CHANCELLOR  
ATAL BIHARI VAJPAYEE UNIVERSITY  
BILASPUR, CHHATTISGARH, INDIA

**PROGRAM CHAIR**

**PROF. H. S. HOTA**

HOD, DEPARTMENT OF CSA  
ATAL BIHARI VAJPAYEE UNIVERSITY  
BILASPUR, CHHATTISGARH, INDIA

## EVENT DETAILS

The 2024 JNVU-ABVU-AIMT International Conference on Innovative Research in Science, Management, and Technology (ICIRSMT) was a collaborative effort between the Department of Computer Science and Application at Atal Bihari Vajpayee University, Bilaspur, Chhattisgarh, India, the American Institute of Management and Technology (AIMT) USA, and Jai Narayan Vyas University, Jodhpur, Rajasthan, India. In collaboration, the Department of Business, Management, and Accounting at the University of Maryland Eastern Shore, USA, also played a significant role. The conference, conducted in a hybrid mode at both Jodhpur and Bilaspur from January 5 to 7, 2024, aimed to explore innovative research in diverse disciplines.

The inaugural function took place at Atal Bihari Vajpayee University, Bilaspur, India, on January 5, 2024. The event commenced with a lamp lighting ceremony and the university's Kulgeet. Dr. Deva D. Sharma, President of The Global Knowledge Foundation, USA, graced the occasion as the chief guest, along with special guests Dr. Daniel Okinbor, Professor of Computer Science from Fayetteville State University, USA; Dr. Rakesh Sharma from the University of Maryland, USA; Dr. Ashish Gadekar from Amity Institute of Higher Education, Mauritius; and Biswajeet Sarkar from Yonsei University, South Korea. The Vice-Chancellor of the university presided over the function, with the Registrar, Shri Shailendra Dubey, in attendance. Dr. H.S. Hota, the conference chair, welcomed the foreign dignitaries and informed the audience that 302 research papers were submitted online through the Conference Management Tool (CMT) across three disciplines: Science, Management, and Technology, from participants representing 10 different countries. The conference featured 10 speakers from abroad who delivered talks on the conference themes. There were 15 online and offline sessions where authors presented their research papers. Dr. H.S. Hota highlighted the department's commitment to organizing academic events to foster a research environment. He also announced the initiation of Chhattisgarh AI to promote an AI ecosystem in the state.

Dr. Daniel Okinbor encouraged students to be innovative and work hard for success, while Dr. Deva D. Sharma emphasized the objectives of The Global Knowledge Foundation, inviting students to consider higher studies and research opportunities in the USA. Dr. Biswajeet Sarkar praised the organization and working capabilities of Dr. H.S. Hota, expressing appreciation for the conference. Vice-Chancellor A.D.N. Bajpai commended the entire organizing team for the successful multidisciplinary international conference and welcomed foreign delegates to Bilaspur.

Dr. Ashish Gadekar delivered a keynote address on "Industry 4.0 for Science, Management, and Technology," discussing key points and its applicability in various fields. The inaugural function witnessed the presence of researchers, deans, EC and AC members of the university, teachers, students, officers, and media personnel. The conference booklet and the initiative of Chhattisgarh AI were inaugurated during the event.

The GKF International Award 2023, presented in six categories, was announced by Dr. Rakesh Sharma and awarded by Dr. Deva D. Sharma.



## EVENT DETAILS

**Science Category-** Nirmalkar Bar, Banasthali Vidyapith West Bengal

**Technology Category-** Sonu Purohit, Guru Ghasidas Viswavidyalaya Bilaspur(C.G.)

**Management Category –** Dr. Sumona Bhattacharya, ABVV, Bilaspur (C.G)

Dr. Sriya Sahu concluded the inaugural function with a vote of thanks, and the program was conducted by Dr. Rashmi Gupta.

The 2024 JNVU-ABVU-AIMT International Conference marked a significant collaboration fostering research, innovation, and international exchange in the fields of Science, Management, and Technology.

Following the successful inaugural function of the 2024 JNVU-AIMT International Conference on Innovative Research in Science, Management, and Technology, held at Atal Bihari Vajpayee University, Bilaspur, India, experts took the stage to share insights and knowledge. Dr. Sarkar, an expert in Optimization Techniques, delivered an informative lecture that captivated the audience. Participants actively engaged, posing numerous questions, highlighting the significance and interest generated by Dr. Sarkar's talk on optimization techniques. Many participants posed questions, reflecting the audience's keen interest. Dr. Sarkar's lecture proved to be highly informative, contributing to the academic discourse.

On the first day of the conference, a State Level Talkathon was organized, attracting 55 participating teams. This collaborative effort was organized in association with the Indian Science Congress Association. The event provided a platform for teams to showcase their projects related to AI-ML and IoT, addressing real-world problems. This event was organized in association with Indian Science Congress Association. Foreign delegates visited each team's stall, commending the students for their efforts in solving real-world problems related to AI-ML and IoT. Teams presented their projects, and judges evaluated them, selecting three outstanding projects. Dr. Sarkar played a pivotal role in this phase, identifying potential projects and encouraging students to consider patenting their innovations. Three best projects were selected. Dr. Sarkar urged students to explore patenting opportunities for their projects. The Vice Chancellor of the university visited all the stalls, encouraging teams to apply for patents and recognizing their innovative efforts.

In the evening of the first day, a vibrant cultural program unfolded, featuring students from affiliated colleges and University Teaching Departments (UTD). The program showcased colorful dance performances of Kathak and Chhattisgarhi dance forms from affiliated colleges and UTD

The 2024 JNVU-AIMT Conference not only provided a platform for academic discussions and expert talks but also celebrated the cultural diversity through the State Level Talkathon and the vibrant cultural program. The event successfully fostered collaboration, innovation, and cross-cultural exchange among participants.

# TALKATHON DETAILS

The State Level Talkathon on "Recent Trends & Technology," organized by the Department of Computer Science and Technology at Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur, Chhattisgarh, in association with the Indian Science Congress Association, was a remarkable event aimed at empowering tomorrow's innovators. Under the patronage of Prof. A.D.N. Bajpai, the Hon'ble Vice Chancellor of the university, the event brought together students and experts to showcase their creativity and problem-solving skills in the fields of Artificial Intelligence (AI), Machine Learning (ML), Internet of Things (IoT), and Robotics. The event was scheduled for January 6, 2024.

## **Event Highlights:**

The event commenced with expert lectures by distinguished speakers:

Dr. Daniel Okunbor: Fayetteville State University, USA.

Dr. Biswajit Sarkar: Yonsei University, South Korea.

Their insightful talks set the tone for the event, providing participants with valuable perspectives on recent trends and technologies in the field.

## **Competition Structure:**

Participants competed for three prizes with cash awards:

1st Prize: Rs. 5000

2nd Prize: Rs. 3000

3rd Prize: Rs. 2000

The submitted models were evaluated by a three-member expert committee consisting of:

Dr. Amit Chandanan, Assistant Professor, Guru Ghasidas Viswavidyalaya, Bilaspur (C.G.).

Dr. Amit Dewangan, Assistant Professor, Guru Ghasidas Viswavidyalaya, Bilaspur (C.G.).

Dr. Rohit Raja, Associate Professor, Guru Ghasidas Viswavidyalaya, Bilaspur (C.G.).

## **Competition Winners:**

A total of 51 teams comprising 90 students from various colleges participated in the event. The competition featured three prizes:

1st Prize: Ujjawal Matoliya and Suryaprakash Patel (MCA-III Semester) - "IoT & Cloud Based Smart Switching Plug Compatible with AI Assistant" - Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur, Chhattisgarh (Prize: Rs. 5000)

2nd Prize: Radha Singh Chauhan and Abhishek Jaiswal (M.Sc-III(CS) Semester) - "IoT based Smart Agriculture Monitoring System" - Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur, Chhattisgarh (Prize: Rs. 3000)

3rd Prize: Devlal Patel and Vasudev Kaushik (M.Sc-I(CS) Semester) - "Home Automation" - Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur, Chhattisgarh (Prize: Rs. 2000).



## EVENT DETAILS

The second day of the 2024 JNVU-AIMT International Conference witnessed a dynamic exchange of ideas and research findings as authors presented their papers in physical mode across seven sessions dedicated to Science, Management, and Technology. A total of 85 authors showcased their research during these sessions. The sessions were expertly chaired by various session chairs, ensuring a smooth and organized presentation of papers. Physical presentations across seven different sessions in which 85 authors presented their papers.

Dr. Okunbore and Dr. Rakesh Sharma delivered expert talks on cybersecurity. They elucidated the fundamentals of cybersecurity and its real-world applications. Students actively engaged with the experts, discussing scenarios and the demand for cybersecurity experts in the USA. Both experts provided comprehensive answers, enriching the participants' understanding.

In the evening, the valedictory function marked the culmination of the conference. Dr. Deva D. Sharma, President of The Global Knowledge Foundation, USA, was the chief guest, joined by special guests Dr. Daniel Okinbor, Professor of Computer Science from Fayetteville State University, USA; Dr. Rakesh Sharma from the University of Maryland, USA; and Biswajeet Sarkar from Yonsei University, South Korea. Dr. Okunbore commended the conference's success, emphasizing the high participation and quality of presentations. Dr. Sarkar appreciated the efficient organization of the conference. Dr. Rakesh Sharma shared his experience, highlighting the significance of the conference.

The program chair, Dr. H.S. Hota, announced the Best Paper Award. The valedictory function concluded with a comprehensive vote of thanks by Dr. H.S. Hota, program chair. Dr. Hota expressed gratitude to various contributors, including Dr. Dinesh Sharma from the University of Maryland Eastern Shore, Dr. K. Goual, Vice-Chancellors of both universities, conference chairs, session chairs, the organizing committee, steering committee chairs, and all staff members.

On the third day, the conference continued with online presentations from participants in India and abroad. Over 100 authors presented their papers, contributing to the global exchange of knowledge.

The 2024 JNVU-AIMT International Conference concluded successfully, fostering collaboration, knowledge sharing, and academic enrichment. The valedictory function served as a platform to acknowledge achievements, express appreciation, and celebrate the success of the conference.





## 2024 JNVU-ABVU-AIMT SPRING

### 4<sup>th</sup> International Conference on

### INNOVATIVE RESEARCH IN SCIENCE, MANAGEMENT AND TECHNOLOGY (ICIRSMT)

Jointly Organized by

Institute of Evening Studies  
Jai Narain Vyas University  
Jodhpur, Rajasthan, India



Department of Computer Science & Application  
Atal Bihari Vajpayee University  
Bilaspur, Chhattisgarh, India

In association with

American Institute of Management & Technology (AIMT), USA  
(An academic subsidiary of The Global Knowledge Foundation (CKF) USA, INC.)

And

Department of Business, Management & Accounting

University of Maryland Eastern Shore, USA

Maryam Abacha American University of Nigeria, Nigeria

05-07 January, 2024

MODE : HYBRID

Venue

Atal Bihari Vajpayee University Bilaspur, Chhattisgarh, India

## CALL FOR PAPERS

#### About The Conference

In an era characterized by rapid technological advancements, innovative management strategies, and groundbreaking scientific discoveries, the importance of interdisciplinary collaboration and knowledge exchange cannot be overstated. To facilitate this exchange, the International Conference on Innovative Research in Science, Management and Technology, organized jointly by Jai Narayan Vyas University, Jodhpur, India and Atal Bihari Vajpayee University, Bilaspur, India, in association with the American Institute of Management and Technology, USA, is poised to be a landmark event in the world of academia and research. It will serve as a global platform for knowledge dissemination, collaboration, and innovation, promoting the advancement of applied sciences, management, technology and Social Sciences for the betterment of society and the world at large.

The conference is set to take place in a hybrid mode, allowing participants from around the world to join either in person or virtually. This unique approach aims to ensure inclusivity and foster global collaboration, bringing together researchers, academicians, practitioners, and industry experts on a single platform. The topics of interest may include the emerging areas of science, management and technology.

#### Important Dates

Last Date of Submission : 15 November, 2023  
10 December, 2023  
Registration : 30 November, 2023  
25 December, 2023

#### PATRONS

#### CO- PATRONS



Prof. Kanhaiya Lal Shrivastava  
Hon'ble Vice Chancellor  
Jai Narain Vyas University  
Jodhpur, Rajasthan, India



Prof. A.D.N. Bajpai  
Hon'ble Vice Chancellor  
Atal Bihari Vajpayee University  
Bilaspur, Chhattisgarh, India



Prof. Deva D. Sharma  
President  
The Global Knowledge  
Foundation (CKF) USA



Prof. Mohammad Israr  
President  
Maryam Abacha American  
University of Nigeria, Nigeria

<https://cmt3.research.microsoft.com/ICIRSMT2024>

#### PROGRAM CHAIRS

Prof. H.S. Hota  
Atal Bihari Vajpayee University, Bilaspur, India

Prof. Krishn A. Goyal  
Jai Narain Vyas University, Jodhpur, India

Prof. Dinesh K. Sharma  
University of Maryland Eastern Shore, USA

#### Registration Fees

	INR	USD
Foreign Author/Industry	4000	50
Faculty	2500	30
Research Scholar	2000	25
Online Participation	1700	20

**SUBMIT**

Publication Partners



CONTACT:

[icirsmt2024@gmail.com](mailto:icirsmt2024@gmail.com)



<http://jnvu-abvv-aimt.gkfusa.org>



## PUBLICATION

All the presented papers of 2024 JNVU-ABVU-AIMT will be published in Conference proceedings (<https://gkfusa.org/aimtcp/>): American Institute of Management and Technology Conference Proceedings (AIMTCP) with ISSN No. 2024 JNVU-ABVU-AIMT also provides publication opportunities to the authors of their presented papers in the following journals or edited books (Subject to the scope of the journal/Edited book and to undergo peer review process and with additional processing charges). After the conference, the best papers of 2024 JNVU-ABVU-AIMT will be selected for publishing in the following journals (As per that journal policies) and the corresponding author(s) will be notified to submit the final version for further reviews. The selection process will be based on both the reviewer's evaluation of the paper and the quality of the author's presentation at the conference.

- ◆ Journal of information and Technology Management (JIMT) (Scopus Indexed).
- ◆ Edited book on Modelling and Computational Intelligence for Quality and Reliability (Elsevier).
- ◆ Edited book on Ambient Intelligence and Visual Computing in Healthcare (Degruyter).
- ◆ Global Journal of Review and Business Technology (GRBT): Published by The Global Knowledge Foundation, USA (Web site [www.gkfusa.org](http://www.gkfusa.org)).
- ◆ International Journal of Decision Science and Information Technology (IJDSIT): An official journal of Atal Bihari Vajpayee University and MTMI, USA.
- ◆ Global Journal of Modeling and Intelligent Computing (GJMIC): Published by The Global Knowledge Foundation, USA (Web site [www.gkfusa.org](http://www.gkfusa.org)).
- ◆ Global Journal of Computer and Engineering Technology (GJCET): Published by The Global Knowledge Foundation, USA (Web site [www.gkfusa.org](http://www.gkfusa.org)).

## PAPER SUBMISSION

The original version of the paper from an academician, research Scholar, scientist, and others is invited to be submitted only through MS CMT link including abstract, Introduction, literature review, methodology, results, conclusion, references, etc. The paper must be checked through any plagiarism software prior to submission.

Be ready with the following before submitting your abstract/Full-length paper

1. Your paper in the proper template in Docx/PDF format (Download paper template from Conference website)
2. Create MS CMT account.
3. And then submit your paper through the MS CMT link - <https://cmt3.research.microsoft.com/ICIRSMT2024>

## ABOUT JAI NARAIN VYAS UNIVERSITY

Jai Narain Vyas University, Jodhpur was established in 1962 as University of Jodhpur. It is a multi-disciplinary university catering to the needs of more than twenty-two thousand regular and more than forty-five thousand private students with 368 affiliated colleges. This is NAAC B++ grade university of western Rajasthan. Since its inception, the university continues to act as a catalyzer of social mobility through its thirty-eight departments and two hundred and twenty-six programs it offers. With a humble beginning, the university today stands tall as a global institution of eminence in the academic landscape of the nation serving the need for higher education in five districts of Rajasthan namely: Pali, Jalore, Barmer, Jaisalmer, and Jodhpur. The university focuses on building a stimulating and exhilarating academic environment through the confluence of ideas, debates, and discussions.

## ABOUT ATAL BIHARI VAJPAYEE UNIVERSITY

Atal Bihari Vajpayee University is a State public University which has been established by the Gazette notification on 03.02.2012 of Chhattisgarh Act No 07, 2012, the Chhattisgarh Viswavidyalaya (Amendment) Act, 2011 and came in to its existence in June, 2012. The jurisdiction of Atal Bihari Vajpayee University is extended to 04 districts of the state. University has more than 110 affiliated colleges where students are studying in UG, PG and Ph.D. programs. University has teaching departments. The Department of Computer Science and Application is one of the department of the University Teaching Department running Certificate, UG, PG and Ph.D. programs in computer science. The MCA & M. Tech.(Computer Application) programs of the department are affiliated from All India Council of Technical Education, New Delhi.

## ABOUT AIMT AND THE GKF

American Institute of Management and Technology (AIMT) is an academic subsidiary of The Global Knowledge Foundation, USA, Inc. The AIMT has been registered with and approved by the state of North Carolina, USA. Its purpose is to provide educational opportunities by organizing conferences, seminars, workshops, and symposia. Offering online courses as well as membership. The Global Knowledge Foundation (GKF) U.S.A, Inc. has been established in the year 2010 to operate exclusively for educational, scientific, and charitable purposes within the scope of Section 501 (c)(3) of the Internal Revenue Code. The GKF is being operated by scientists, academicians, innovators, creative individuals, and dedicated professionals across the globe. The mission of GKF is to radically redefine, redesign, and reorganize knowledge, research, and education under global multilateral perspectives.

**CONTACT:**



[icirsmt2024@gmail.com](mailto:icirsmt2024@gmail.com)



<http://jnvu-abvv-aimt.gkfusa.org>



## GALAXY OF SPEAKERS



**Dr. Kate Brown**

University of Maryland Eastern Shore, USA



**Dr. Aaron Rababaah**

American University of Kuwait, Kuwait



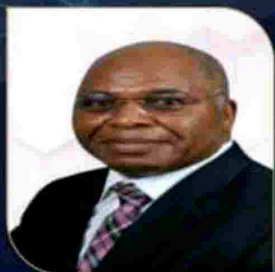
**Dr. A. Gadekar**

Amity University of Higher Education, Mauritius



**Dr. Tulus Tambunan**

University Trisakti, Indonesia



**Dr. Daniel Okunbor**

Fayetteville State University, USA



**Dr. Biswajit Sarkar**

Yonsei University, South Korea



**Dr. R. Sivasamy**

Botswana International University of Science and Technology, Botswana



**Dr. Tomohiko Kobayashi**

Otaru University of Commerce Japan



**Dr. Kolawole Subair**

Nigerian Army University, Biu Borno State, Nigeria



**Dr. Satish Penmatsa**

Framingham State University USA



**Dr. Rajiv Ranjan Singh**

Glasgow Caledonian University, United Kingdom (U.K.)



**Dr. Manish Biyani**

Japan Advanced Institute of Science and Technology Japan



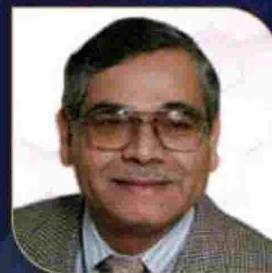
**Dr. Suraksha Gupta**

Newcastle University, London UK



**Dr. Ricardo G Barcelona**

Kings College London, UK



**Dr. S. Dev Gupta**

St. Thomas University Fredericton, Canada



**Dr. Maxim Dolinsky**

University of Florida, USA



## GALAXY OF SPEAKERS



**Prof. Yoshihito Takashi**

Senshu University, Japan



**Prof. Radhey S. Pradhan**

Uniglobe College, Nepal

## Track Chairs

### Science

Dr. Preeti Sharma - University of Maryland Eastern Shore, USA  
 Dr. Praveen Cahlot - Jai Naryan Vyas University, Jodhpur, India  
 Dr. D.K. Shrivastava - Atal Bihari Vajpayee University, Bilaspur, India

### Technology

Dr. Rachna Verma- Jai Naryan Vyas University, Jodhpur, India  
 Dr. Vikas Singh- Indira Gandhi National Tribal University, Amarkantak  
 Dr. Akhilesh Shrivastava - Guru Ghasidash University, Bilaspur, India

### Management

Dr. Kshitiz Maharshi- Jai Naryan Vyas University, Jodhpur, India  
 Dr. Arti Gaur - Chaudhary Devi Lal University, Sirsa, India  
 Teena Mertiya- Govt. College, Pail, India

### Social Sciences

Dr. Satish Harit- Jai Naryan Vyas University, Jodhpur, India  
 Dr. Vijay Singh- Sardar Patel University of Police Security and Criminal Justice, Jodhpur, India  
 Dr. Sambit Padhi- Guru Ghasidash University, Bilaspur, India

## Conference Chairs -

### Dr. Kshitiz Maharshi

Jai Narain Vyas University,  
Jodhpur, India

### Dr. Deepak Kumar

Amity University, India

### Dr. Madhu Jain

IIT Roorkee, India

### Dr. A. Rababaah

American University of  
Kuwait, Kuwait

## International Advisory Committee -

### Dr. Satya Dev Gupta

St. Thomas University, Canada

### Dr. Julius A. Alade

University of Maryland Eastern  
Shore, USA

### Dr. S.K. Yadav

Babasaheb Bhimrao  
Ambedkar University, India

### Dr. Pradeep Tomar

Gautam Buddha University,  
India

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Taiwan

### Dr. Tulus Tambunam

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Indonesia

### Dr. Ming-Long Lee

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Taiwan

### Dr. Saed Talib Amer

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### Dr. Justin Paul

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### Dr. R.K. Jana

IIM, Raipur, India

### Dr. Vijay Saini

MIT Manukau Campus, New  
Zealand

### Dr. Tomohiko Kobayashi

Otaru University of Commerce,  
Japan

### Dr. Abhishek Dubey

University of Technology and  
Applied Sciences, Salalah  
Oman

### Dr. A. Rastogi

University of Technology and  
Applied Sciences, Salalah  
Oman

### Dr. Anand S. Upadhyay

Sultanate of Oman

### Dr. Avinash Gour

University of Technology and  
Applied Sciences, Salalah  
Oman

### Dr. Raj Bahadur Sharma

University of Bahrain, Kingdom  
of Bahrain

### Dr. A. Rastogi

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### Dr. K.K. Sahu

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Raipur, India

### Dr. Tripti Swarnakar

Siksha 'O' Anusandhan,  
Bhubaneswar, India

### Dr. Radhey Shyam Pradhan

Uniglobe College, Nepal

### Dr. Maxim Dolinsky

University of Florida, USA

### Dr. Thomas Lange

Abu Dhabi University, U.A.E.

### Dr. Recardo G. Barcelona

Barcelona, Catalonia, Spain

### Dr. T.K. Jairaman

Fiji National University Fiji

### Dr. Weiwei Zhu Stone

University of Maryland Eastern  
Shore, USA

### Dr. Shyam S. Lodha

Southern Connecticut State  
University, USA

### Dr. Kamal Nain Agarwal

Howard University  
Washington, DC

### Dr. Stephen Z. Onyeiwu

Allegheny College, USA

### Dr. Sally Sledge

Norfolk State University, USA

### Dr. Nooh B. Muhammad

American University of Kuwait,  
Kuwait

**CONTACT:**

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<http://jnvu-abvv-aimt.gkfusa.org>

# PROGRAM SCHEDULE

TIME (IST)	Particular
11:30 AM	Guests on the Dias
11:30 AM	Lamp lightening and Kulgeet
11:33 AM	Welcome to the guests
11:35 AM	Welcome Address By Dr. H.S. Hota, Program chair, ICIRSMT 2024
11:40 AM	Address by special guest Dr. Daniel Okunbor, Professor (Computer Science) Fayetteville State University, North Carolina, USA
11:45 AM	Address by special guest Dr. Biswajeet Sarkar, Yonsei University, Seol, South Korea
11:50 AM	Address By chief guest Dr. Deva D. Sharma, President The Global Knowledge Foundation, USA
12:00 Noon	Presidential address by Prof. Arun Diwakar Nath Bajpai, Hon'ble Vice Chancellor, Atal Bihari Vajpayee University, Bilaspur, Chhattisgarh, India
12:10 PM	Announcement of The Global Knowledge Foundation International Award 2023 by Dr. Rakesh Sharma, University of Maryland Eastern shore, USA
12:20 PM	Release of Chhattisgarh AI: A vision for AI sensitization and Advancement and ICIRSMT 2024 Information Bulletin
12:25 PM	Felicitation of the guests
12:30 PM	Keynote address by Dr. Ashish Gadekar, Amity University of Higher Education Mauritius
01:00 PM	Vote of Thanks By Dr. Shriya Sahu, Dept of CSA, Atal Bihari Vajpayee University, Chhattisgarh, India
01:05 PM	End of the program
01:05 Onwards	Talkathon Exhibition on IoT, ML and Robotics



## PROGRAM SCHEDULE

PARTICULAR	TIME	VENUE
<b>DAY-2: JANUARY 6, 2024</b>		
<b>REGISTRATION AND NETWORKING SESSION</b>	<b>9:30 AM ONWARDS</b>	<b>GROUND FLOOR</b>
<b>TECHNICAL SESSION: MI (TRACK-MANAGEMENT)</b>	<b>10:30 AM</b>	<b>ROOM NO. 5 GROUND FLOOR</b>
<b>TECHNICAL SESSION: S1 (TRACK-SCIENCE)</b>	<b>10:30 AM</b>	<b>ROOM NO. 6 GROUND FLOOR</b>
<b>TECHNICAL SESSION: : S2 (TRACK-SCIENCE)</b>	<b>12:00 AM</b>	<b>ROOM NO. 6 GROUND FLOOR</b>
<b>TECHNICAL SESSION: : S3 (TRACK-SCIENCE)</b>	<b>12:00 AM</b>	<b>ROOM NO. 5 GROUND FLOOR</b>
<b>TECHNICAL SESSION: T1 (TRACK-TECHNOLOGY)</b>	<b>10:30 AM</b>	<b>ROOM NO. 7 GROUND FLOOR</b>
<b>TECHNICAL SESSION: T2 (TRACK-TECHNOLOGY)</b>	<b>12:00 AM</b>	<b>ROOM NO. 7 GROUND FLOOR</b>
<b>TECHNICAL SESSION: T3 (TRACK-TECHNOLOGY)</b>	<b>10:30 AM</b>	<b>ROOM NO. 8 GROUND FLOOR</b>
<b>TECHNICAL SESSION: T4 (TRACK-TECHNOLOGY)</b>	<b>12:00 AM</b>	<b>ROOM NO. 8 GROUND FLOOR</b>
<b>LUNCH BREAK</b>	<b>1:30 PM</b>	<b>UNIVERSITY GUEST HOUSE THIRD FLOOR</b>
<b>EXPERT TALK BY DR. RAKESH SHARMA, UNIVERSITY OF MARYLAND EASTERN SHORE USA ON SECURITY IN IOT ENVIRONMENT</b>	<b>2:30 PM</b>	<b>ROOM NO. 6 GROUND FLOOR</b>
<b>TECHNICAL SESSION: T5 (TRACK-TECHNOLOGY)</b>	<b>2:30 PM</b>	<b>ROOM NO. 8 GROUND FLOOR</b>
<b>TECHNICAL SESSION: T6 (TRACK-TECHNOLOGY)</b>	<b>2:30 PM</b>	<b>ROOM NO. 7 GROUND FLOOR</b>
<b>EXPERT TALK BY DR. RAJIV RANJAN SINGH, GLASGOW CALEDONIAN UNIVERSITY, UNITED KINGDOM (U.K.) ON IOT SECURITY</b>	<b>3:30 PM</b>	<b>ROOM NO. 8 GROUND FLOOR</b>
<b>VALIDATORY FUNCTION AND CERTIFICATE DISTRIBUTION</b>	<b>4:00 PM</b>	<b>FOURTH FLOOR AUDITORIUM</b>

# VALEDICTORY INVITATION



## Department of Computer Science and Application



Atal Bihari Vajpayee University, Bilaspur (C.G.)

### INVITATION

*It gives us great pleasure to invite you to the  
valedictory Function of the*

**International Conference on Innovative Research in Science  
Management and Technology (ICIRSMT-2024)**

#### Preside Over

**Prof. A.D.N. Bajpai**

Hon'ble Vice Chancellor  
Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur

#### Chief Guest

**Dr. Deva D. Sharma**

President  
The Global Knowledge Foundation (GKF), USA

#### Guest of Honor

**Dr. Daniel Okunbore**  
Fayetteville State University  
U.S.A.

**Dr. Rakesh Sharma**  
University of Manland Eastern  
Shore, U.S.A.

**Dr. Biswajit Sarkar**  
Yonsei University  
South Korea

**Dr. A. Gadekar**  
Amity University of Higher Education  
Mauritius

**Shri Shailendra Dudey**

Registrar  
Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur

#### Program Chair

**Prof. H.S. Hota**

Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur

#### Program

Date : 06.01.2024

Time : 04.30 PM

Venue : 4th Floor, Auditorium, Atal Bihari Vajpayee University, Bilaspur



# GLIMPSES OF INAUGURAL





# GLIMPSES OF INAUGURAL





# GLIMPSES OF INAUGURAL





## LAUNCH OF CHHATTISGARH AI



## LAUNCH OF CONFERENCE BOOKLET





# GKF INTERNATIONAL AWARD ACHIEVERS





# GLIMPSES OF EXPERT TALK





# GLIMPSES OF TALKATHON





# GLIMPSES OF TALKATHON



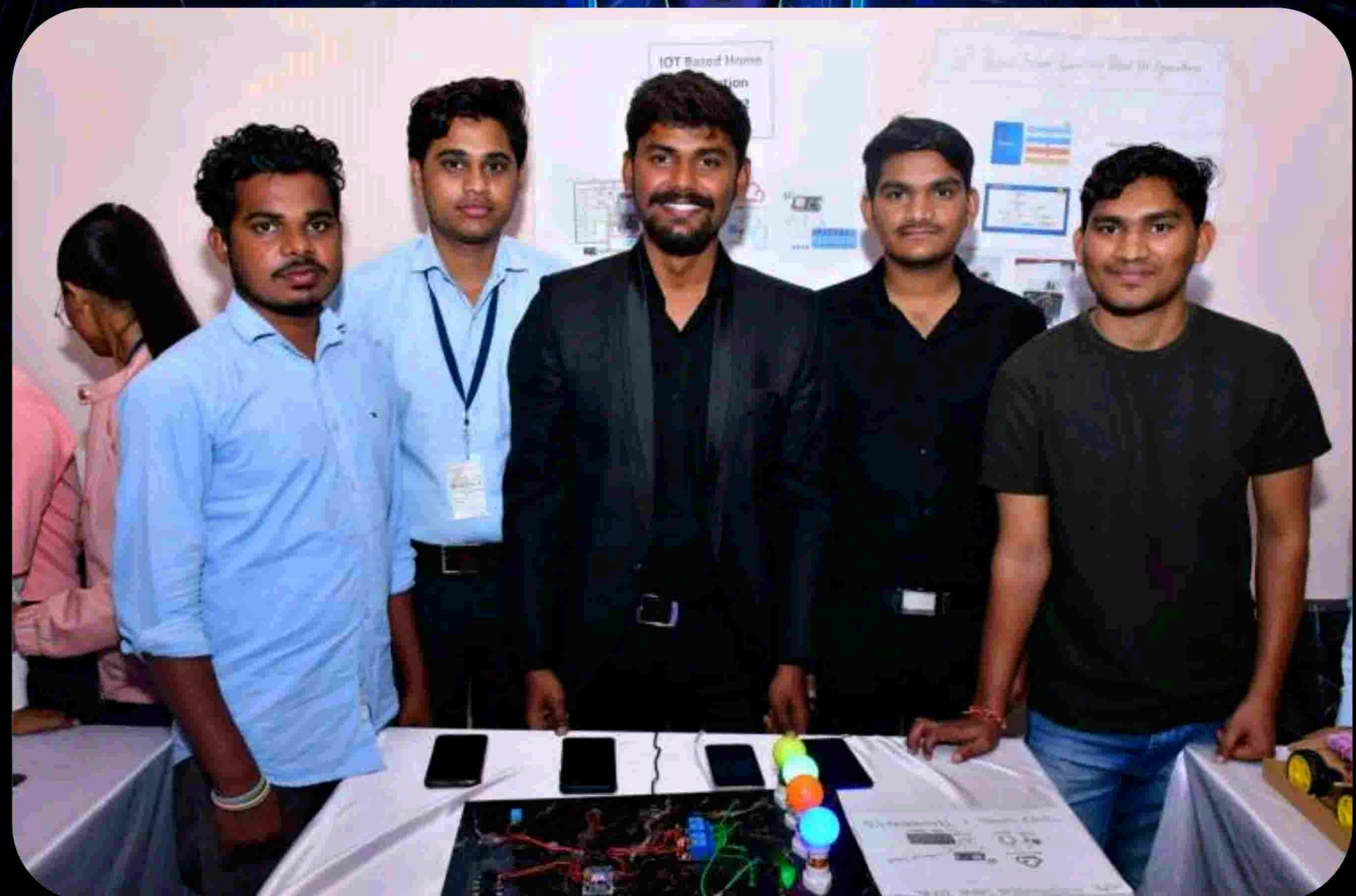


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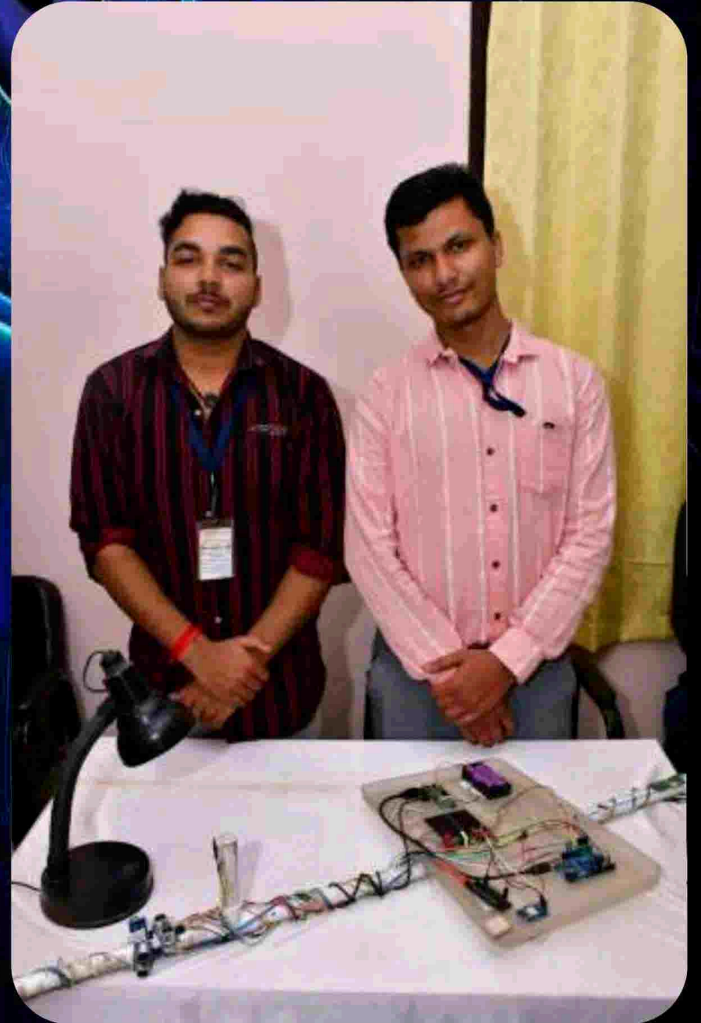
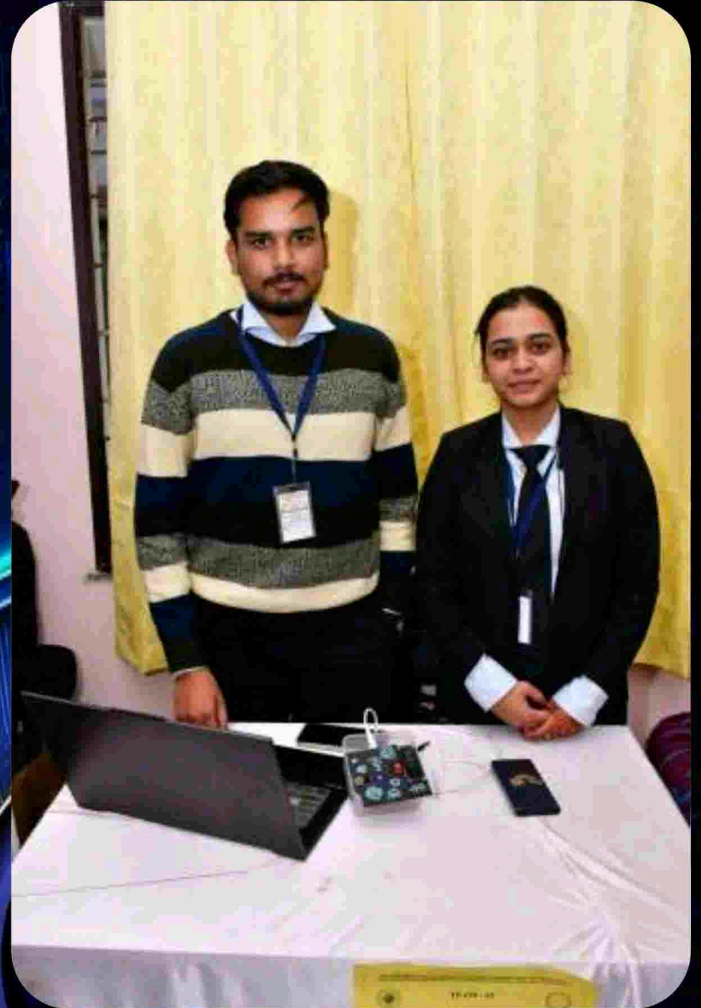


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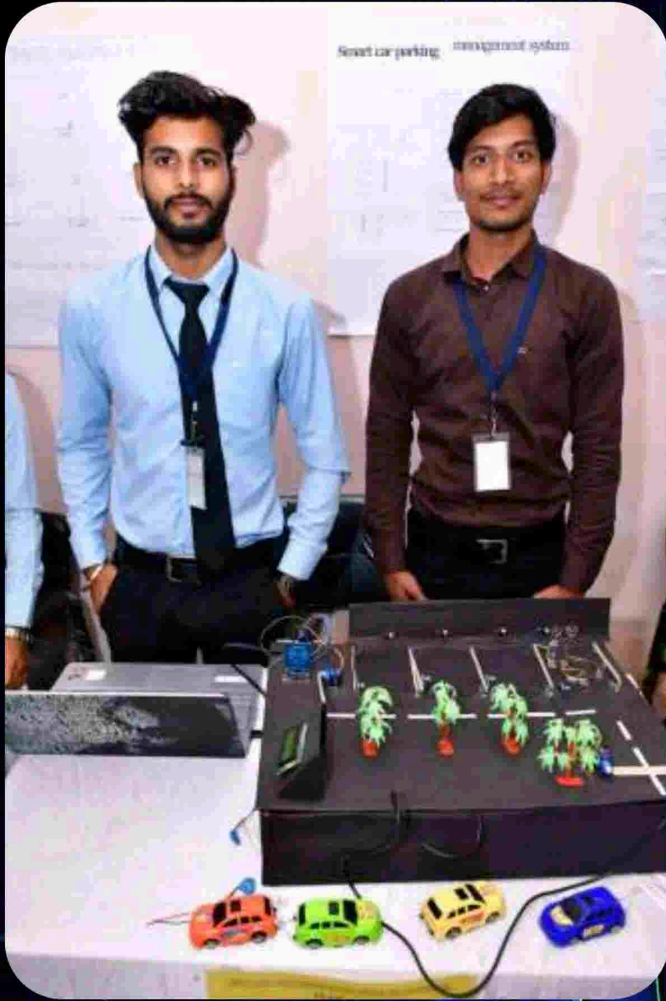


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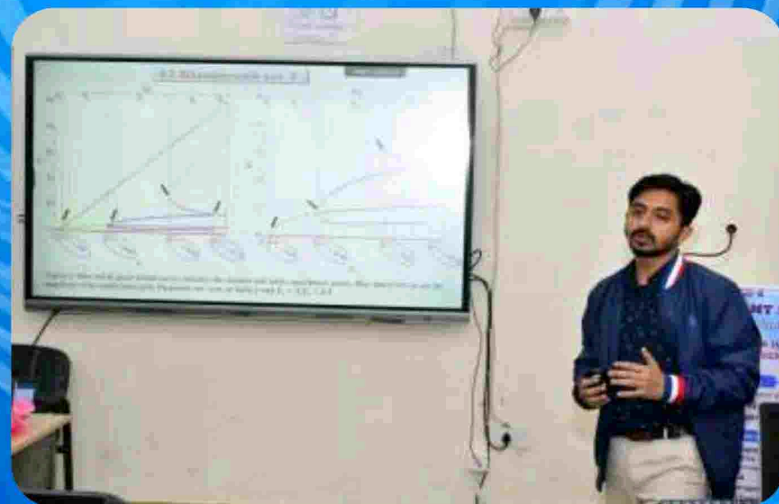
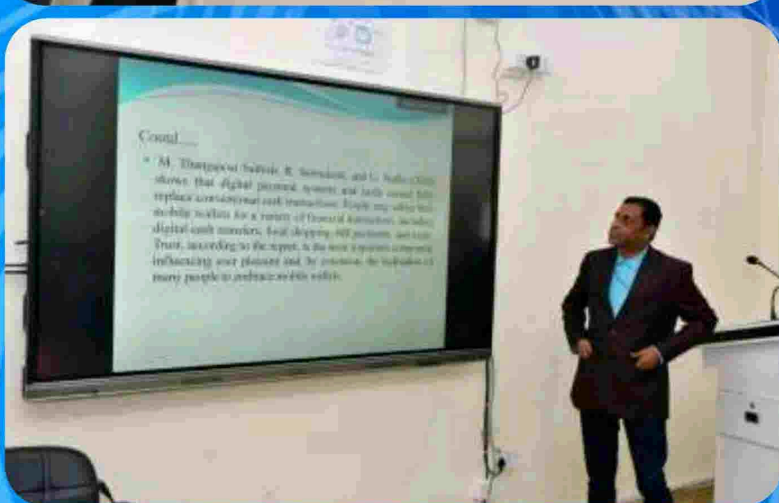
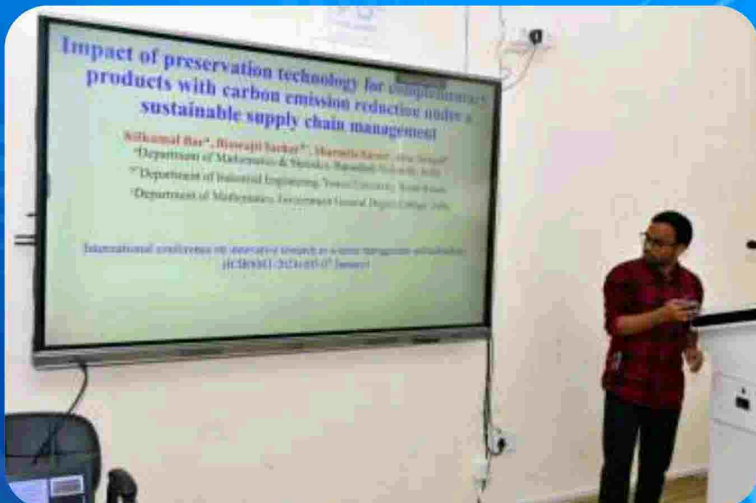
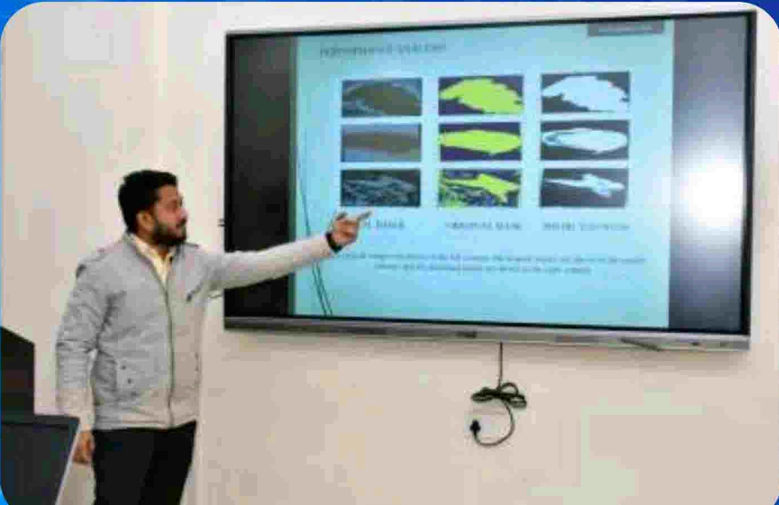
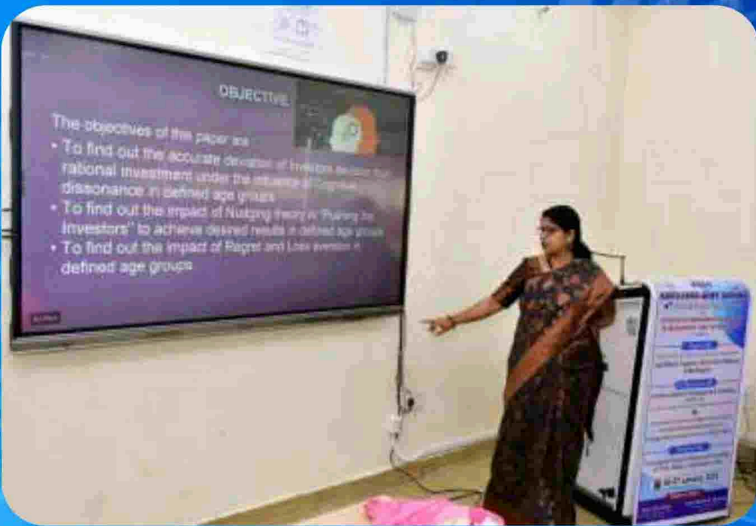


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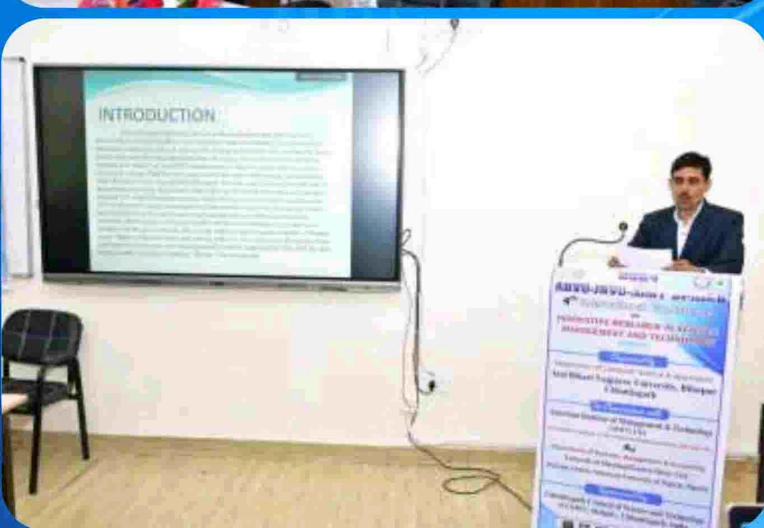
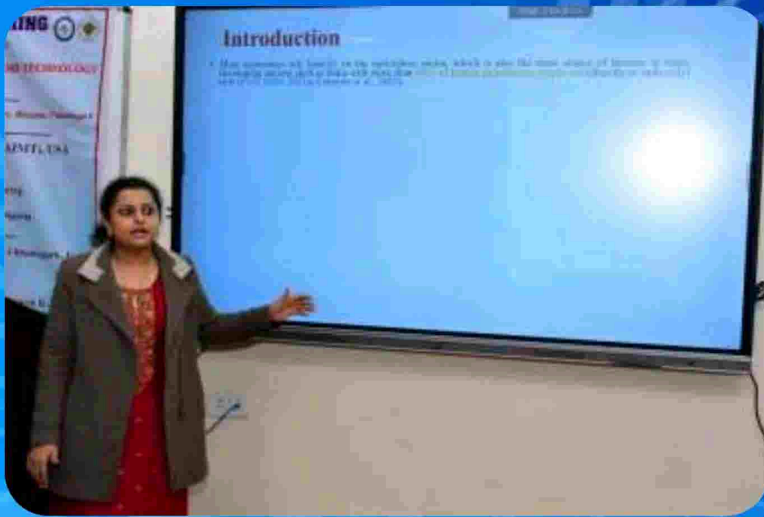


# PAPER PRESENTATIONS



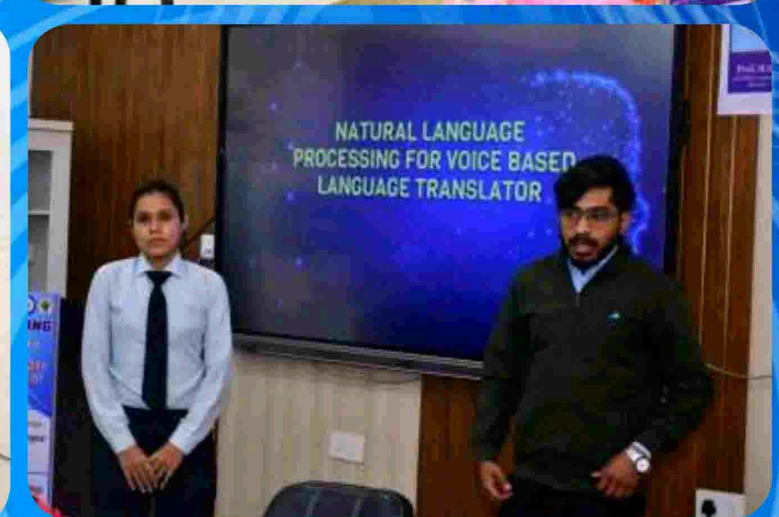
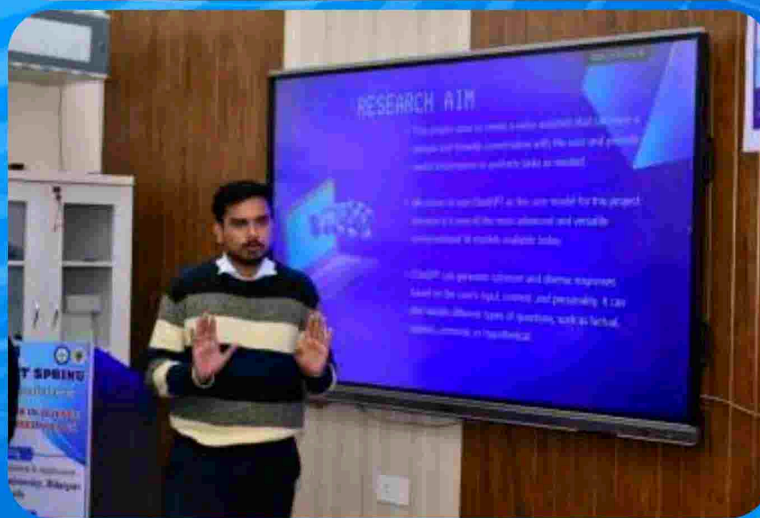


# PAPER PRESENTATIONS



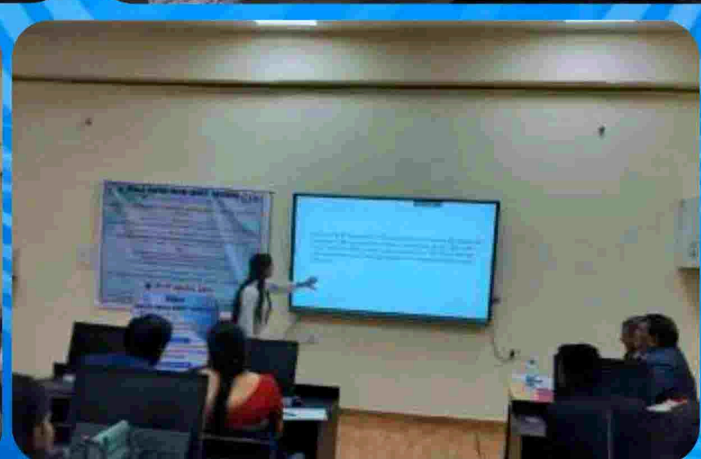
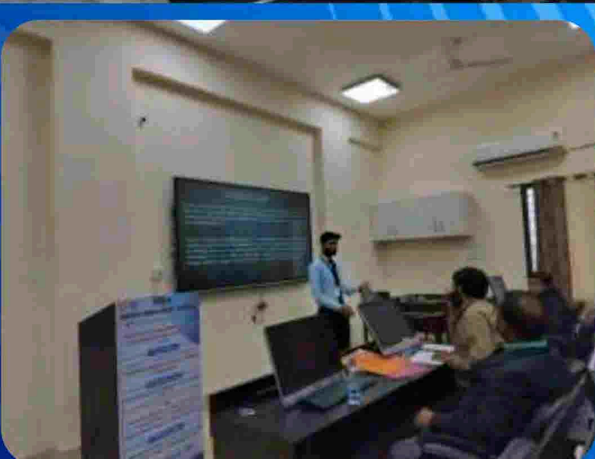
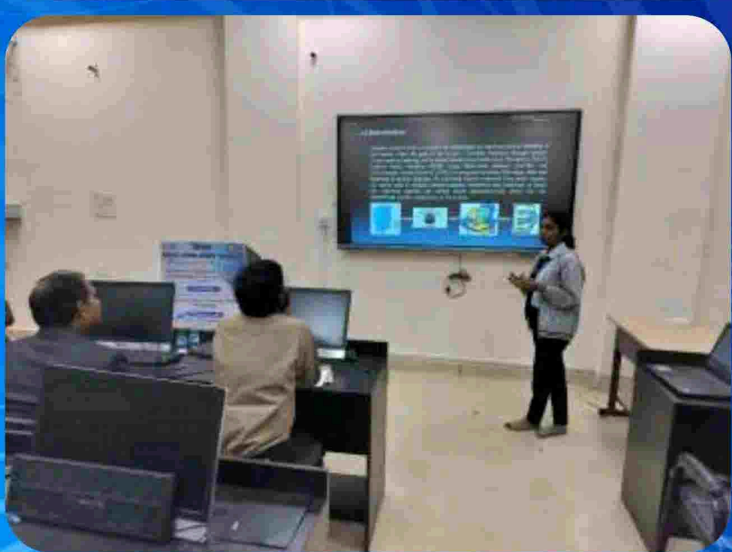


# PAPER PRESENTATIONS





# PAPER PRESENTATIONS





# GLIMPSES OF CULTURAL EVENT





# GLIMPSES OF CULTURAL EVENT



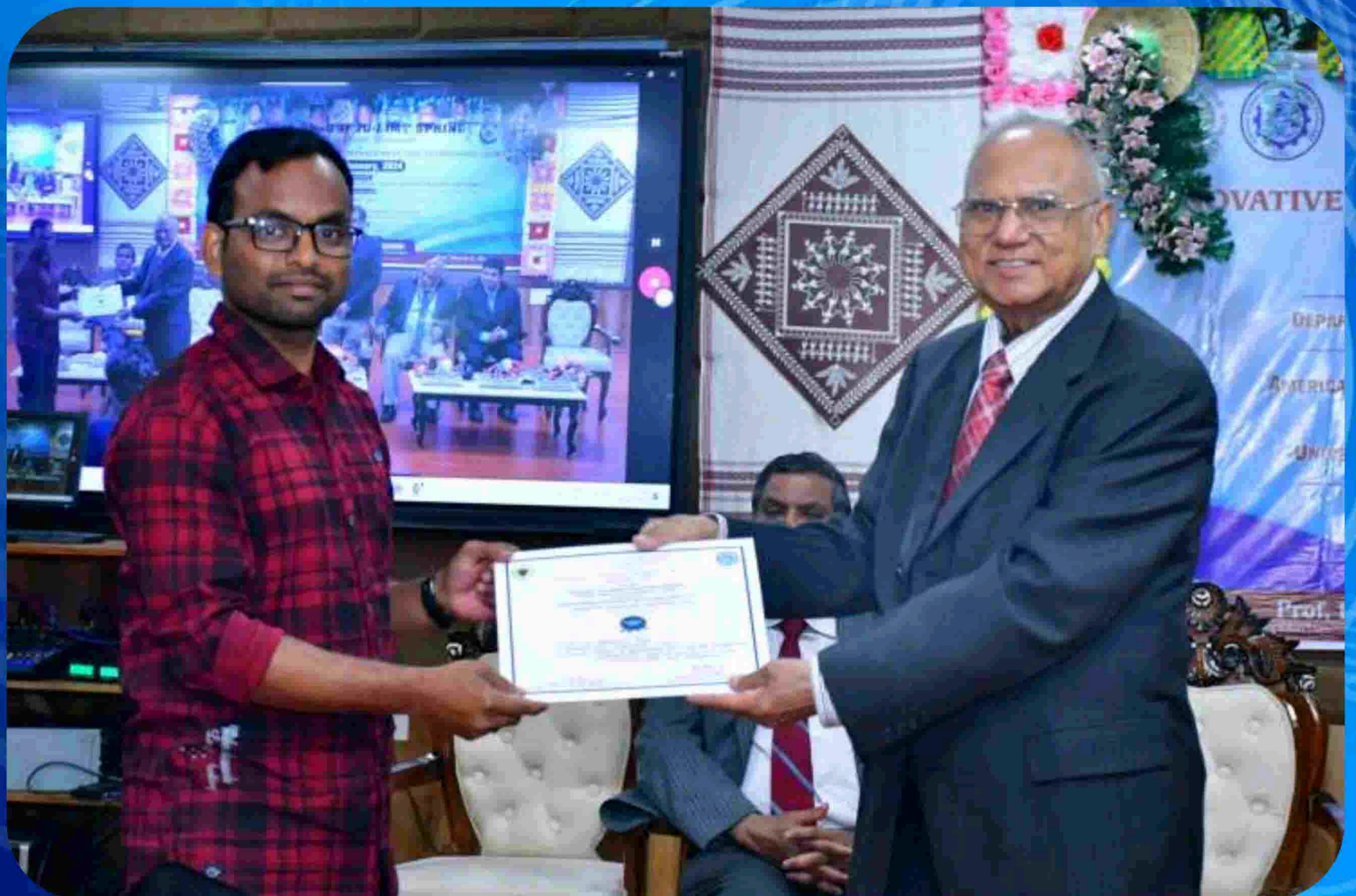


# VELEDICTORYY SPEECHES





# BEST PAPER AWARD ACHIEVERS





# GROUP PICTURES





# GROUP PICTURES





# स्मार्ट होम: घर पहुंचने से पहले बेडरूम रहेगा अब कूल

छात्र उज्जवल के डिवाइस को मिला प्रथम स्थान, 10 देश, 300 शोध पत्र, 28 सत्र में हुआ वाचन

ए. मसोए थर्ड सेमेस्टर के छात्र उज्जवल मटोलिया ने एक ऐसा डिवाइस तैयार किया है, जिसे घर के सभी इलेक्ट्रिक उपकरणों को कहीं से भी नियंत्रित किया जा सकता है। उदाहरण के लिए गर्मी में आफिस से घर निकलने से पहले अपने मोबाइल के माध्यम से बेडरूम के एसी को चालू किया जा सकता है। घर पहुंचने पर रूम एकदम कूल मिलेगा। अटल बिहारी वाजपेयी विश्वविद्यालय में आयोजित अंतरराष्ट्रीय सम्मेलन में इस स्मार्ट होम विज्ञान माडल को प्रथम स्थान मिला है।



विज्ञान माडल को देखते एक्सपर्ट व संयोजक डा. एचएस होता।

कम्प्यूटर साइंस एंड एप्लीकेशन विभाग के छात्र उज्जवल और सहपाठी सूर्यप्रकाश पटेल ने इस संबंध में जानकारी देते हुए बताया कि स्मार्ट होम नाम हमने डिवाइस को तैयार किया है। इसका मकसद विजली बचाने के साथ आमजन को समय पर सुविधा पहुंचाना है। स्मार्ट

होम डिवाइस को बनाने में 700 रुपये का खर्च आया है। इंटरनेट की सुविधा के साथ मोबाइल पर एक एप डाउनलोड करना पड़ता है फिर इसे कहीं से भी संचालित

किया जा सकता है। सिर्फ एसी तक सीमित नहीं है इस डिवाइस से वाशिंग मशीन, टीवी, प्रिंटर, सीलिंग फंखा, गीजर के साथ सभी विद्युत लाइट को कंट्रोल किया जा



प्रमाण पत्र के साथ शोधार्थी और उपस्थित अतिथि।

सकता है। अटल बिहारी वाजपेयी विश्वविद्यालय में कम्प्यूटर साइंस एंड एप्लीकेशन विभाग द्वारा विज्ञान, तकनीक एवं प्रबंधन में शोध एवं नवाचार विषय पर आयोजित

अंतरराष्ट्रीय सम्मेलन में इस माडल को प्रथम स्थान मिला। इंडियन साइंस कांग्रेस बिलासपुर चेप्टर के तत्वावधान में राज्य स्तरीय टैकाथान में विजेता घोषित किया गया। वहीं

समापन समारोह के अतिथि समापन समारोह में अतिथियों के रूप में डा. डेनियल ओकबर, फीटवीले विश्वविद्यालय अमेरिका, डा. विश्वजीत सरकार, योन्सेई विश्वविद्यालय, साउथ कोरिया, डा. राकेश शर्मा मैरीलेण्ड विश्वविद्यालय, ईस्टर्न शोर, अमेरिका एवं विश्वविद्यालय के कुलसचिव शैलेंद्र दुबे तथा कार्यक्रम के संयोजक डा. एचएस होता उपस्थित थे। डा. श्रिया साहू ने सम्मेलन पर विस्तार से जानकारी दी। समापन कार्यक्रम में विभिन्न महाविद्यालयों एवं विश्वविद्यालयों के शिक्षक, छात्र, शोधार्थी बड़ी संख्या में उपस्थित थे।

द्वितीय स्थान पर राधा सिंह चौहान एवं अभिषेक जायसवाल तथा एमएससी के छात्र देवलाल पटेल एवं वासुदेव कौशिक को तृतीय स्थान प्रदान किया गया।

# अटल में अंतरराष्ट्रीय सम्मेलन देश-विदेश से पहुंचे 300 शोधपत्र

बिलासपुर ( नईदुनिया प्रतिनिधि )। अटल बिहारी वाजपेयी विश्वविद्यालय के कम्प्यूटर साइंस एंड एप्लीकेशन विभाग की ओर से पांच से सात जनवरी तक विज्ञान, तकनीक एवं प्रबंधन में शोध एवं नवाचार विषय पर अंतरराष्ट्रीय सम्मेलन का आयोजन किया जा रहा है। यह अमेरिकन इंस्टीट्यूट आफ मैनेजमेंट एंड टेक्नोलॉजी, अमेरिका और यूनिवर्सिटी आफ मैरीलैंड, अमेरिका के सहयोग से आयोजित किया जा रहा है।

कम्प्यूटर साइंस एवं एप्लीकेशन विभाग द्वारा आयोजित यह चौथा अंतरराष्ट्रीय सम्मेलन प्रतिवर्ष आयोजित किया जाने वाला एक वृहद आयोजन है। इसमें प्रदेश समेत भारत के विभिन्न राज्यों और अन्य देशों के 300 से अधिक शोध पत्र प्राप्त हुए हैं। इन्हें 11 आफलाइन व 18 आनलाइन सत्रों में विभाजित किया गया है। विज्ञान, तकनीक एवं प्रबंधन के लिए पृथक-पृथक ट्रैक में शोध-पत्रों का वाचन शोधार्थियों द्वारा

## मिलेगा अंतरराष्ट्रीय अवार्ड



के अवसर पर द ग्लोबल नालेज फाउंडेशन अमेरिका द्वारा प्रत्येक वर्ष प्रदाय किया जाने वाला 2023 का अंतरराष्ट्रीय अवार्ड भी प्रदान किया जाएगा। विश्वविद्यालय के कम्प्यूटर साइंस विभाग द्वारा इस अवसर पर

सम्मेलन का शुभारंभ पांच जनवरी को सुबह 11:30 बजे विश्वविद्यालय में वस्तुतः तल पर आयोजित है। इसमें डा. देवा डी. शर्मा, अमेरिका जो कि ग्लोबल नॉलेज फाउंडेशन के अध्यक्ष हैं और नासा के पूर्व विज्ञानी व भौतिक शास्त्री हैं, मुख्य अतिथि होंगे। कार्यक्रम की अध्यक्षता विश्वविद्यालय के कुलपति आचार्य अरुण दिवाकर नाथ वाजपेयी करेंगे। कार्यक्रम में विशिष्ट अतिथि के रूप में विदेश से पधार रहे अन्य प्राध्यापक सम्मिलित होंगे। शुभारंभ

इंडिया एआइ की तर्ज पर छत्तीसगढ़ एआइ भी प्रारंभ किया जा रहा है। इसका उद्देश्य एआइ के विभिन्न क्षेत्रों में उपयोगिता के मद्देनजर कार्यशाला, सेमिनार, सेन्सेटाइजेशन प्रोग्राम, इन्वोवेशन, स्टार्टअप इत्यादि के द्वारा छत्तीसगढ़ राज्य में एआइ इकोसिस्टम विकसित करना है। इसके लिए विश्वविद्यालय का कम्प्यूटर साइंस विभाग आने वाले समय में एआइ के संबंध में इंडिया एआइ के अनुसार ही कार्य करेगी।

किया जाएगा। सम्मेलन में भारत समेत लगभग 10 देशों से शोध-पत्र प्राप्त हुए हैं। इसमें अमेरिका, साउथ कोरिया, मारीशस, ओमान, इंग्लैंड, बोत्सवाना शामिल हैं। देश के विभिन्न राज्यों के प्रतिष्ठित संस्थानों से भी शोधपत्र मिले हैं। सम्मेलन में अमेरिका के तीन विश्वविद्यालयों के प्रोफेसर और साउथ कोरिया

व मारीशस के प्रोफेसर विशेषज्ञ व्याख्यान भी देंगे। इसमें डा. डेनियल ओकबर फिटविले विश्वविद्यालय अमेरिका, डा. आशीष गडेकर, अमेटी विश्वविद्यालय आफ हायर एजुकेशन मारीशस, डा. विश्वजीत सरकार, योन्सेई विश्वविद्यालय साउथ कोरिया, डा. राकेश शर्मा मैरीलैंड विश्वविद्यालय ईस्टर्न

शोर, अमेरिका भौतिक रूप से अपना विशेषज्ञ व्याख्यान देंगे। इसके अतिरिक्त डा. आर. शिवास्वामी, बोत्सवाना इंटरनेशनल विश्वविद्यालय बोत्सवाना, डा. राजीव रंजन सिंह ग्लासगोव कैलेडोनियन विश्वविद्यालय इंग्लैंड भी आनलाइन माध्यम से अपना विशेषज्ञ व्याख्यान देंगे।



# अंतरराष्ट्रीय सम्मेलन में स्टूडेंट के 55 विज्ञान माडल की रही धमक

अटल बिहारी वाजपेयी विश्वविद्यालय में शुक्रवार को विज्ञान, तकनीक एवं प्रबंधन में शोध एवं नवाचार विषय पर त्रि-दिवसीय अंतरराष्ट्रीय सम्मेलन प्रारंभ हुआ। प्रथम दिवस 55 विभिन्न विज्ञान माडल को प्रदर्शनी में रखा गया। भारत सहित अमेरिका, मारीशस, साउथ कोरिया के विशेषज्ञों ने खूब सराहा। पेटेंट के लिए प्रोत्साहित भी किया।



अटल बिहारी वाजपेयी विश्वविद्यालय के अंतरराष्ट्रीय सम्मेलन में पहुंचे अतिथि को भेंट करते कुलपति व अधिकारी ● जईदुलिया



सांस्कृतिक कार्यक्रमों की प्रस्तुति ने मन मोहा ● नईदुनिया

विश्वविद्यालय के कम्प्यूटर साइंस एंड एप्लीकेशन विभाग द्वारा आयोजित सम्मेलन के उद्घाटन सत्र में व्याख्यान के लिए डा. डेनियल ओकेंबर, फीटवीले विश्वविद्यालय अमेरिका, डा. आशिष गडेकर, अमेटी विश्वविद्यालय आफ हायर एजुकेशन, मारीशस, डा. विश्वजीत सरकार, योन्सेई विश्वविद्यालय, साउथ कोरिया, डा. राकेश शर्मा मैरीलैण्ड विश्वविद्यालय, ईस्टर्न शोर, अमेरिका एवं अटल विश्वविद्यालय के कुलसचिव शैलेंद्र दुबे उपस्थित थे। सम्मेलन के लिए भारत के विभिन्न राज्यों तथा अन्य देशों के 100 से अधिक शोध पत्र प्राप्त हुए

हैं। उन्हें 11 आफलाइन और 18 आनलाइन सत्रों में विभाजित किया गया है। विज्ञान, तकनीक एवं प्रबंधन के लिए अलग-अलग ट्रैक में शोध-पत्रों का वाचन शोधार्थियों द्वारा किया जाएगा। इस अवसर पर इंडिया एआई की तर्ज पर छत्तीसगढ़ एआई भी प्रारंभ किया गया। इसका उद्देश्य एआई के विभिन्न क्षेत्रों में उपयोगिता के मद्देनजर कार्यशाला, सेमिनार, सेंसेटइजेशन प्रोग्राम, इनोवेशन, स्टार्टअप इत्यादि के द्वारा छत्तीसगढ़ राज्य में एआई इकोसिस्टम विकसित करना है।

**2024 बुलेटिन का विमोचन**  
कार्यक्रम के अध्यक्ष विश्वविद्यालय के कुलपति आचार्य अरुण दिवाकर नाथ वाजपेयी समेत अतिथियों ने छत्तीसगढ़ आर्टिफिशियल इंटेलीजेंस संबंधी बुकलेट व आइसीआइ आरएएसएमटी 2024 का इन्फार्मेशन बुलेटिन का विमोचन किया। कुलपति ने नए शोधार्थियों व छात्रों को नवीन शोध करने और शोध में नवाचार करने का टिप्स भी दिए। कहा कि अकादमिक नेटवर्किंग कर अपने शोध को आगे बढ़ाएं।

**रंगारंग सांस्कृतिक कार्यक्रम**  
प्रथम दिवस अंत में सांस्कृति रक्ष्या का भी आयोजन किया गया। इसमें भरतनाट्यम एवं छत्तीसगढ़ी नृत्य की प्रस्तुति छात्राओं द्वारा दी गई। इस प्रस्तुति ने विदेशी मेहमानों का मन मोहा लिया। सभी कलाकारों को अतिथियों द्वारा स्मृति चिन्ह भी प्रदाय किया गया। कार्यक्रम के द्वितीय दिवस छह जनवरी को को फेस टू फेस प्रेजेंटेशन रखा गया है। इसमें आठ सत्रों में 98 शोधार्थियों के द्वारा अपने शोध पत्रों का प्रेजेंटेशन करेंगे।

**2023 का अंतरराष्ट्रीय अवार्ड**  
कार्यक्रम में 2023 का अंतरराष्ट्रीय अवार्ड भी दिया गया। इनमें डा. विश्वजीत सरकार, साउथ कोरिया, डा. आरती गौर, हरियाणा, डा. कृष्णा ए. गोयल, जयनारायण व्यास विश्वविद्यालय जोधपुर, डा. एक्स होता, अटल बिहारी वाजपेयी विश्वविद्यालय बिलासपुर, डा. तरुणधर दीवान, अटल बिहारी वाजपेयी विश्वविद्यालय, बिलासपुर, एक्स.टोडे, संत गहिरा गुरु विश्वविद्यालय सरगुजा, डा. आर. शिवास्वामी, बोत्सवाना, डा. केंट ब्राउन, मैरीलैण्ड विश्वविद्यालय अमेरिका शामिल थे।

## आयोजन

### देश- विदेश से आए शोधार्थी करेंगे चर्चा

सिटीरिपोर्टर | बिलासपुर

# एयू में अंतरराष्ट्रीय सम्मेलन शुरू, 10 देशों के 300 शोध पत्र पढ़े जाएंगे



## सम्मेलन में पांच विशेषज्ञ रखेंगे अपनी बात

कार्यक्रम के अध्यक्ष विश्वविद्यालय के कुलपति आचार्य अरुण दिवाकर नाथ वाजपेयी ने कहा कि सम्मेलन में अमेरिका सहित विभिन्न देशों के पांच विशेषज्ञ अपनी बातें रखेंगे। मारीशस से आए डॉ. आशीष गडेकर ने इंडस्ट्री 4.0 पर मुख्य व्याख्यान दिया और कहा कि इसका उपयोग विज्ञान एवं तकनीक और प्रबंधन में किया जा रहा है।

सहल है। इसमें छह समेत भारत के विभिन्न राज्यों व अन्य देशों के 300 से अधिक शोध पत्र मिले हैं। जिन्हें 11 ऑफलाइन और 18 आनलाइन सत्र होंगे। विज्ञान, तकनीक और प्रबंधन के लिए अलग-अलग ट्रैक में शोध पत्रों का वाचन शोधार्थी करेंगे। सम्मेलन में भारत सहित लगभग 10 देशों से शोध पत्र मिले हैं। इस अवसर पर इंडिया एआई की तर्ज पर छत्तीसगढ़ एआई भी शुरू किया गया। जिसका उद्देश्य एआई के विभिन्न क्षेत्रों में उपयोगिता के

मद्देनजर कार्यशाला, सेमिनार, सेंसेटइजेशन प्रोग्राम, इनोवेशन, स्टार्टअप विकसित करना है। उद्घाटन सत्र में फीटवीले विश्वविद्यालय अमेरिका डॉ. डेनियल ओकेंबर, एआई विश्व ऑफ हायर एजुकेशन डॉ. आशिष गडेकर मारीशस, डॉ. विश्वजीत सरकार, योन्सेई विश्व, साउथ कोरिया, डॉ. राकेश शर्मा मैरीलैण्ड विश्वविद्यालय, ईस्टर्न शोर, अमेरिका एवं विश्वविद्यालय के कुलसचिव शैलेंद्र दुबे उपस्थित रहे।

## यूएसए के द ग्लोबल नॉलेज फाउंडेशन ने किया सम्मानित एयू के परीक्षा नियंत्रक डॉ. दीवान को यंग रिसर्च इंटरनेशनल अवार्ड

बिलासपुर | अटल यूनिवर्सिटी के परीक्षा नियंत्रक डॉ. तरुणधर दीवान को अंतरराष्ट्रीय यंग रिसर्च इंटरनेशनल अवार्ड मिला है। उन्हें अमेरिका के द ग्लोबल नॉलेज फाउंडेशन ने निरमित रिसर्च के लिए सम्मानित किया है। कुलपति आचार्य एडीएन वाजपेयी को मौजूदगी में फाउंडेशन के प्रेसीडेंट डॉ. देव डी शर्मा ने डॉ. दीवान को सम्मान से नवाजा। डॉ. दीवान को एक और पुरस्कार मिला है। उन्हें अमेरिका के द ग्लोबल नॉलेज फाउंडेशन ने अंतरराष्ट्रीय पुरस्कार दिया है। ये पुरस्कार उन्हें निरमित रूप से शोध के क्षेत्र में अंतरराष्ट्रीय स्तर पर कार्य करने तथा भिन्न-भिन्न देश में शोध पर कार्य कर रहे वैज्ञानिकों तथा प्रोफेसर के साथ निरंतर शोध पत्र प्रकाशन तथा पेटेंट में कार्य करने के लिए खा



रिसर्च इंटरनेशनल अवार्ड से सम्मानित किया गया है। पहले भी डॉ. दीवान को राष्ट्रीय एवं अंतरराष्ट्रीय पुरस्कार मिल चुका है। तथा निरंतर किया जा रहे शोध कार्य एवं राष्ट्रीय तथा अंतरराष्ट्रीय स्तर पर विभिन्न पेटेंट, रिसर्च एवं इनोवेटिव प्रोजेक्ट के यंग साइंटिस्ट अवार्ड, इनोवेटिव रिसर्च अवार्ड, बेस्ट नोडल ऑफिसर अवार्ड, बेस्ट रिसर्च पेपर अवार्ड मिल चुका है। दिल्ली में राष्ट्रपति और प्रधानमंत्री द्वारा भी डॉ. दीवान द्वारा गैड किए प्रोजेक्ट पुरस्कृत हुए हैं।



# एयू में अंतरराष्ट्रीय संगोष्ठी 5 से, 10 देशों के 300 शोध पत्र पढ़े जाएंगे

संगोष्ठी तीन दिनों तक, 11 ऑफलाइन व 18 ऑनलाइन सत्र में चलेगी

एजुकेशन रिपोर्टर | बिलासपुर

अटल बिहारी वाजपेयी यूनिवर्सिटी के कंप्यूटर साइंस एंड एप्लीकेशन विभाग द्वारा अंतरराष्ट्रीय संगोष्ठी का आयोजन किया जा रहा है। संगोष्ठी 5 से 7 जनवरी तक चलेगी। सुबह 11 बजे से एयू के कोनी स्थित बिल्डिंग के चौथे फ्लोर के सभागार में होगी। अंतरराष्ट्रीय सम्मेलन का शुभारंभ 5 जनवरी 2024 को 11:30 बजे विश्वविद्यालय में चतुर्थ तल पर आयोजित है। मुख्य अतिथि ग्लोबल नॉलेज फ्रंटडेशन के अध्यक्ष डॉ. देवा डी. शर्मा हैं। अध्यक्षता कुरुपति आचार्य अरुण दिवाकर नाथ वाजपेयी करेंगे। कार्यक्रम संयोजक डॉ. एचएस होता ने बताया कि यह संगोष्ठी अमेरिकन

इंस्टीट्यूट ऑफ मैनेजमेंट एंड टेक्नोलॉजी, यूनिवर्सिटी ऑफ मैरीलैंड अमेरिका के सहयोग से किया जा रहा है। सीएस विभाग का यह चौथा अंतरराष्ट्रीय सम्मेलन है। इसमें भारत के अलावा 10 देशों के 300 से अधिक शोध पत्र मिले हैं। जो संगोष्ठी में पढ़े जाएंगे। संगोष्ठी 11 ऑफलाइन और 18 ऑनलाइन सत्र में तीन दिनों तक चलेगी। विज्ञान, तकनीक एवं प्रबंधन के लिए अलग-अलग ट्रेक में शोध पत्रों का वाचन शोधार्थियों करेंगे। शोधपत्र अमेरिका, साउथ कोरिया, मारीशस, ओमान, इंग्लैंड, बोत्सवाना सहित अन्य देशों से आए हैं। संगोष्ठी में अमेरिका के तीन विश्वविद्यालयों के प्रोफेसर, साउथ कोरिया और मारीशस के प्रोफेसर विशेषज्ञ व्याख्यान भी देंगे।

## सम्मेलन से रोजगार की आस

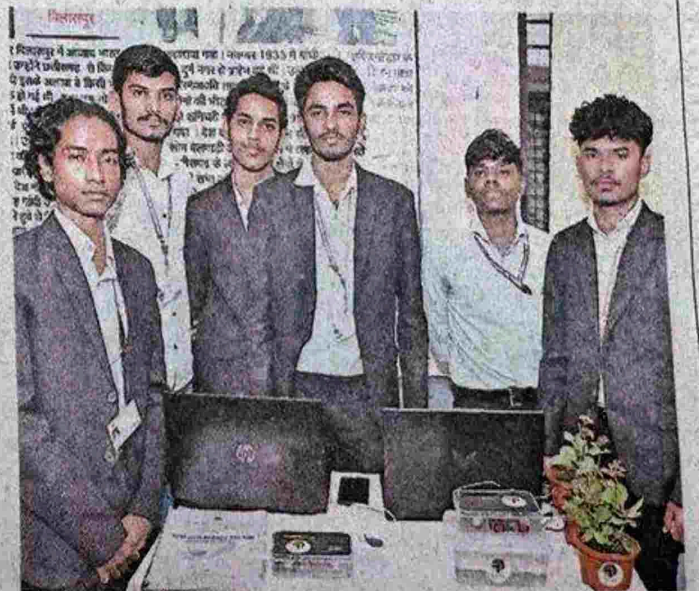


बातों-बातों में

डा. सुनील गुप्ता

अटल बिहारी वाजपेयी विश्वविद्यालय में इन दिनों कुछ खास हो रहा है। खास इसलिए कि शोध अनुसंधान को लेकर अंतरराष्ट्रीय सम्मेलन चल रहा है। इसमें देश के अलावा विदेशी मेहमान भी शिरकत कर रहे हैं। हम मेहमाननवाजी भी कर रहे हैं और प्रतिभा का प्रदर्शन भी। आर्टिफिशियल इंटेलिजेंस (एआइ) और मशीन

लर्निंग जैसे विषयों पर गहन मनन और मंथन का दौर चल रहा है। शोधार्थियों के अलावा कालेज स्टूडेंट में भी इसे लेकर जिज्ञासा देखी जा रही है। युवा उत्साहित हैं। स्टूडेंट का उत्साह ऐसा कि विदेशी विशेषज्ञ मेहमानों के बीच अपने प्रोजेक्ट को भी दमदारी के साथ रख रहे हैं। एआइ और मशीन लर्निंग जैसे विषयों पर हमारे युवाओं का रिसर्च भी कमाल का है। करियर निर्माण की दिशा में आने वाले दिनों में यह मील का पत्थर साबित होगा कहें तो अतिशयोक्ति नहीं होगी। एआइ के जरिए युवा करियर में लंबी छलांग लगाने की योजना भी बनाने लगे हैं।



अंतरराष्ट्रीय सम्मेलन में अपने प्रोजेक्ट का प्रदर्शन करते स्टूडेंट • नईदुनिया



# एयू में अंतरराष्ट्रीय संगोष्ठी 5 से, 10 देशों के 300 शोध पत्र पढ़े जाएंगे

संगोष्ठी तीन दिनों तक, 11 ऑफलाइन व 18 ऑनलाइन सत्र में चलेगी

एजुकेशन रिपोर्टर | बिलासपुर

अटल बिहारी वाजपेयी यूनिवर्सिटी के कंप्यूटर साइंस एंड एप्लीकेशन विभाग द्वारा अंतरराष्ट्रीय संगोष्ठी का आयोजन किया जा रहा है। संगोष्ठी 5 से 7 जनवरी तक चलेगी। सुबह 11 बजे से एयू के कोनो स्थित बिल्डिंग के चौथे फ्लोर के सभागार में होगी। अंतरराष्ट्रीय सम्मेलन का शुभारंभ 5 जनवरी 2024 को 11:30 बजे विश्वविद्यालय में चतुर्थ तल पर आयोजित है। मुख्य अतिथि ग्लोबल नॉलेज फाउंडेशन के अध्यक्ष डॉ. देवा डी. शर्मा हैं। अध्यक्षता कुलपति आचार्य अरुण दिवाकर नाथ वाजपेयी करेंगे। कार्यक्रम संयोजक डॉ. एचएस होता ने बताया कि यह संगोष्ठी अमेरिकन

इंस्टीट्यूट ऑफ मैनेजमेंट एंड टेक्नोलॉजी, यूनिवर्सिटी ऑफ मैरीलैंड अमेरिका के सहयोग से किया जा रहा है। सीएस विभाग का यह चौथा अंतरराष्ट्रीय सम्मेलन है। इसमें भारत के अलावा 10 देशों के 300 से अधिक शोध पत्र मिले हैं। जो संगोष्ठी में पढ़े जाएंगे। संगोष्ठी 11 ऑफलाइन और 18 ऑनलाइन सत्र में तीन दिनों तक चलेगी। विज्ञान, तकनीक एवं प्रबंधन के लिए अलग-अलग ट्रैक में शोध पत्रों का वाचन शोधार्थियों करेंगे। शोधपत्र अमेरिका, साउथ कोरिया, मारीशस, ओमान, इंग्लैंड, बोत्सवाना सहित अन्य देशों से आए हैं। संगोष्ठी में अमेरिका के तीन विश्वविद्यालयों के प्रोफेसर, साउथ कोरिया और मारीशस के प्रोफेसर विशेषज्ञ व्याख्यान भी देंगे।

## शोध एवं नवाचार विषय पर अंतरराष्ट्रीय सम्मेलन 5 को

बिलासपुर। विश्वविद्यालय के कंप्यूटर साइंस एंड एप्लीकेशन विभाग द्वारा 5-7 जनवरी को विज्ञान, तकनीक एवं प्रबंधन में शोध एवं नवाचार विषय पर अंतरराष्ट्रीय सम्मेलन का आयोजन अमेरिकन इंस्टीट्यूट ऑफ मैनेजमेंट एंड टेक्नोलॉजी, अमेरिका तथा यूनिवर्सिटी ऑफ मैरीलैंड, अमेरिका के सहयोग से किया जाएगा। जिसमें छ.ग. सहित भारत के विभिन्न राज्यों तथा अन्य देशों के 300 से अधिक शोध पत्र प्राप्त हुये हैं। जिन्हें 11 ऑफलाइन तथा 18 ऑनलाइन सत्रों में विभाजित किया गया है। विज्ञान, तकनीक एवं प्रबंधन हेतु पृथक-पृथक ट्रैक में शोध पत्रों का वाचन शोधार्थियों द्वारा किया जावेगा, भारत सहित लगभग 10 देशों से शोध पत्र प्राप्त हुये हैं। जिसमें अमेरिका, साउथ कोरिया, मारीशस, ओमान, इंग्लैंड, बोत्सवाना सम्मिलित है। सम्मेलन में अमेरिका के तीन विश्वविद्यालयों के प्रोफेसर तथा साउथ कोरिया तथा मारीशस के प्रोफेसर विशेषज्ञ व्याख्यान भी देंगे। इसमें डॉ. डेनियल

ओकंबर, फीटवीले विश्वविद्यालय अमेरिका, डॉ आशिष गडेकर, अमेटी विश्वविद्यालय ऑफ हायर एजुकेशन, मारीशस, डॉ. विश्वजीत सरकार, योन्सेई विश्वविद्यालय, साउथ कोरिया, डॉ. राकेश शर्मा मैरीलैंड विश्वविद्यालय, ईस्टर्न शोर, अमेरिका भौतिक रूप से अपना विशेषज्ञ व्याख्यान देंगे। इसके अतिरिक्त डॉ. आर. शिवास्वामी, बोत्सवाना इंटरनेशनल विश्वविद्यालय, बोत्सवाना, डॉ. राजीव रंजन सिंह, ग्लासगोव कैलेडोनियन विश्वविद्यालय इंग्लैंड भी ऑनलाइन माध्यम से अपना विशेषज्ञ व्याख्यान देंगे। सम्मेलन में नासा, अमेरिका के पूर्व वैज्ञानिक तथा भौतिक शास्त्री डॉ. देवा डी.शर्मा मुख्य अतिथि होंगे तथा कार्यक्रम की अध्यक्षता विश्वविद्यालय के कुलपति आचार्य अरुण दिवाकर नाथ वाजपेयी करेंगे। विशिष्ट अतिथि के रूप में विदेशों से पहुंच रहे प्राध्यापक होंगे। सम्मेलन में कंप्यूटर साइंस विभाग के छात्रों तथा सम्बद्ध महाविद्यालयों के छात्रों द्वारा रंगारंग आकर्षक प्रस्तुती दी जाएगी।

## एयू में अंतरराष्ट्रीय संगोष्ठी कल से 10 देशों के 300 शोध पत्र पढ़े जाएंगे

बिलासपुर। अटल बिहारी वाजपेयी यूनिवर्सिटी के कंप्यूटर साइंस एंड एप्लीकेशन विभाग द्वारा अंतरराष्ट्रीय संगोष्ठी का आयोजन किया जा रहा है। संगोष्ठी 5 से 7 जनवरी तक चलेगी। सुबह 11 बजे से एयू के कोनो स्थित बिल्डिंग के चौथे फ्लोर के सभागार में होगी। अंतरराष्ट्रीय सम्मेलन का शुभारंभ 5 जनवरी 2024 को 11:30 बजे विश्वविद्यालय में चतुर्थ तल पर आयोजित है। मुख्य अतिथि ग्लोबल नॉलेज फाउंडेशन के अध्यक्ष डॉ. देवा डी. शर्मा हैं। अध्यक्षता कुलपति आचार्य अरुण दिवाकर नाथ वाजपेयी करेंगे। कार्यक्रम संयोजक डॉ. एचएस होता ने बताया कि यह संगोष्ठी अमेरिकन इंस्टीट्यूट ऑफ मैनेजमेंट एंड टेक्नोलॉजी, यूनिवर्सिटी ऑफ मैरीलैंड अमेरिका के सहयोग से किया जा रहा है। सीएस विभाग का यह चौथा अंतरराष्ट्रीय सम्मेलन है। इसमें भारत के अलावा 10 देशों के 300 से अधिक शोध पत्र मिले हैं जो संगोष्ठी में पढ़े जाएंगे। संगोष्ठी 11 ऑफलाइन और 18 ऑनलाइन सत्र में तीन दिनों तक चलेगी। विज्ञान, तकनीक एवं प्रबंधन के लिए अलग-अलग ट्रैक में शोध पत्रों का वाचन शोधार्थियों करेंगे। शोधपत्र अमेरिका, साउथ कोरिया, मारीशस, ओमान, इंग्लैंड, बोत्सवाना सहित अन्य देशों से आए हैं। संगोष्ठी में अमेरिका के तीन विश्वविद्यालयों के प्रोफेसर, साउथ कोरिया और मारीशस के प्रोफेसर विशेषज्ञ व्याख्यान भी देंगे।



The cover features a vibrant blue background with a pattern of overlapping, concentric circles and lines, creating a sense of depth and movement. A large, red ribbon-like banner is centered horizontally, with a white border. The text "CONFERENCE BOOKLET" is printed in a white, serif font with a drop shadow effect, centered within the banner.

**CONFERENCE  
BOOKLET**





2024 JNVU-ABVU-AIMT SPRING



4<sup>th</sup> International Conference  
on

**INNOVATIVE RESEARCH IN SCIENCE, MANAGEMENT AND TECHNOLOGY  
(ICIRSMT)**

*Organized by*

Department of Computer Science & Application  
**Atal Bihari Vajpayee University Bilaspur, Chhattisgarh, India**

*In association with*

**American Institute of Management & Technology (AIMT), USA**  
(An academic subsidiary of The Global Knowledge Foundation (GKF) USA, INC.)

*And*

Department of Business, Management & Accounting  
**University of Maryland Eastern Shore, USA**  
**Maryam Abacha American University of Nigeria, Nigeria**

*Sponsored by*

**Chhattisgarh Council Of Science And Technology  
(CGCOST)**

 **05-07 January, 2024**

MODE : HYBRID

*Venue*

**Atal Bihari Vajpayee University Bilaspur, Chhattisgarh, India**

# INFORMATION BULLETIN

## About The Conference

In an era characterized by rapid technological advancements, innovative management strategies, and groundbreaking scientific discoveries, the importance of interdisciplinary collaboration and knowledge exchange cannot be overstated. To facilitate this exchange, the International Conference on Innovative Research in Science, Management and Technology, organized jointly by Jai Narayan Vyas University, Jodhpur, India and Atal Bihari Vajpayee University, Bilaspur, India, in association with the American Institute of Management and Technology, USA, is poised to be a landmark event in the world of academia and research. It will serve as a global platform for knowledge dissemination, collaboration, and innovation, promoting the advancement of applied sciences, management, technology and Social Sciences for the betterment of society and the world at large.

The conference is set to take place in a hybrid mode, allowing participants from around the world to join either in person or virtually. This unique approach aims to ensure inclusivity and foster global collaboration, bringing together researchers, academicians, practitioners, and industry experts on a single platform. The topics of interest may include the emerging areas of science, management and technology.

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**VIJAY SHARMA**  
Deputy Chief Minister  
Chhattisgarh



Dear Colleagues, Participants, and Distinguished Guests,

It is with immense pleasure that I extend my heartfelt appreciation to the Department of Computer Science and Application at Atal Bihari Vajpayee University, Bilaspur, India, for spearheading the organization of the forthcoming international conference. This noteworthy event is made possible through a collaborative effort with the American University of Management and Technology (AIMT), USA, and the University of Maryland Eastern Shore, USA.

The conference's multidisciplinary approach exemplifies a steadfast commitment to facilitating the exchange of knowledge and fostering collaboration on a global scale. Such initiatives play a pivotal role in advancing the frontiers of academia and industry, transcending geographical boundaries.

I would like to extend my special commendation to Dr. H.S. Hota, the Head of the Department of Computer Science and Application. Dr. Hota's unwavering dedication and tireless efforts have been instrumental in elevating the department's standing on the international stage. The remarkable growth and enhanced reputation that the department has garnered under his leadership are a testament to his commitment to excellence.

As we eagerly anticipate the insightful discussions, presentations, and networking opportunities that this conference will undoubtedly provide. I also hope that , this International Conference will be an indelible mark on Chhattisgarh, paving the way for a future characterized by technological prowess, academic excellence, industry collaboration, and overall socio-economic growth.

I extend my best wishes for a successful and enriching international conference.



## MESSAGE FROM HON'BLE VICE CHANCELLOR



**PROF. A.D.N. BAJPAI**  
**Hon'ble Vice Chancellor**  
Atal Bihari Vajpayee University  
Bilaspur (C.G.)

I am delighted to extend a warm invitation to you for the forthcoming International Conference on Innovative Research in Science, Management, and Technology, jointly organized by the Department of Computer Science and Application, Atal Bihari Vajpayee University, Bilaspur, India, and Jai Narayan Vyas University, Jodhpur, Rajasthan, India in association with University of Maryland Eastern shore, USA and American Institute of Management and Technology, USA. The conference is scheduled to take place at Atal Bihari Vajpayee University, India, from January 5-7, 2024.

This multidisciplinary conference aims to provide a valuable platform for researchers, teachers, and students from our state and across the country to engage in collaborative work and share their innovative research findings. We are excited to welcome our renowned experts from the United States, Botswana, South Korea, and Mauritius, who will be delivering their expert talks in person at the event.

It is gratifying to note that this conference marks the fourth edition of the mega event organized by the Department of Computer Science and Application at our university. We believe that this gathering will not only contribute significantly to the field but also serve as a landmark opportunity for the students of the department.

I would like to extend my heartfelt congratulations to Dr. H.S. Hota, Head of the Department, and his entire team for their dedicated efforts in organizing this international event in collaboration with the American Institute of Management and Technology, USA.

We look forward to your active participation, insightful contributions, and the success of this enriching International conference.



## MESSAGE FROM REGISTRAR



**SHRI SHAILENDRA DUBEY**

**Registrar**

Atal Bihari Vajpayee University  
Bilaspur (C.G.)

We are thrilled to present the official handbook for the upcoming International Conference on Innovative Research in Science, Management, and Technology. This multidisciplinary event, jointly organized by the Department of Computer Science and Application at Atal Bihari Vajpayee University, Bilaspur, India, and Jai Narayan Vyas University, Jodhpur, Rajasthan, India, aims to provide a valuable platform for researchers, teachers, and students from our state and across the country to engage in collaborative work and share their innovative research findings.

We are honoured to welcome distinguished experts from around the globe, including the United States, Botswana, South Korea, and Mauritius, who will be delivering their expert talks in person at the event. Their insights and contributions are sure to enrich the conference experience for all attendees.

This marks the fourth edition of our mega event, and we are proud to see it grow in both scope and significance. The Department of Computer Science and Application at our university is committed to fostering meaningful contributions to the field, and we believe that this conference will not only advance research but also provide a landmark opportunity for the students of the department.

I extend my heartfelt congratulations to Dr. H.S. Hota, Head of the Department, and his entire team for their dedicated efforts in orchestrating this international event. Their collaboration with the American Institute of Management and Technology, USA, has been instrumental in shaping this conference into a truly global platform for knowledge exchange and academic discourse.

We look forward to the success and impact of this International conference.



## MESSAGE FROM PROGRAM CHAIR



**DR. H. S. HOTA**  
**Prof. & Head, Dept. of CSA**  
Atal Bihari Vajpayee University  
Bilaspur (C.G.)

Dear Esteemed Participants and Guests,

It is with great pleasure and enthusiasm that I extend my warmest greetings to each one of you on the occasion of the International Conference on Innovative Research in Science, Management, and Technology (ICIRSMT 2024). Organized by the Department of Computer Science and Application at Atal Bihari Vajpayee University, Bilaspur, India, in collaboration with the American University of Management and Technology (AIMT) USA and the University of Maryland Eastern Shore, USA, this event is proudly sponsored by the Chhattisgarh Council of Science and Technology, Raipur, Chhattisgarh, India.

The multidisciplinary nature of ICIRSMT 2024 underscores our commitment to fostering global knowledge exchange and collaboration. We are delighted to announce that we have received an overwhelming response, with more than 300 research papers submitted from 10 different countries, in addition to contributions from various states across India.

The participation of esteemed speakers and presenters from the USA, South Korea, Oman, Mauritius, Botswana, the UK, and every corner of our diverse country is a testament to the international significance of this conference. Through both face-to-face and online modes, participants will have the opportunity to share their research findings and engage in meaningful discussions.

I extend my heartfelt gratitude to the Hon'ble Vice Chancellor and Registrar of Atal Bihari Vajpayee University for their unwavering support in permitting us to organize this fourth edition of the International Conference. As part of this conference, we are proud to announce The GKF International Award for the year 2023 and the Best Paper Awards, recognizing and celebrating outstanding contributions to the field.

Beyond the presentations and awards, ICIRSMT 2024 also aims to facilitate networking and knowledge sharing among researchers. In line with this, we are organizing a state-level Talkathon on AI-ML and IoT, providing a platform for insightful discussions on these cutting-edge technologies.

I am confident that ICIRSMT 2024 will be a fruitful and enriching experience for all participants, fostering collaboration, innovation, and the exchange of ideas. I look forward to the success of the conference and the lasting impact it will have on the academic and research community.

Wishing you a stimulating and enjoyable conference.

Warm regards,



**DR. DEVA D. SHARMA**

**President**

The Global Knowledge  
Foundation, USA



Dear Participants, Organizers, and Distinguished Guests,

I am delighted to extend my warmest greetings to you all on the occasion of the 4th Edition of the International Conference on Innovative Research in Science, Management, and Technology at Atal Bihari Vajpayee University, Bilaspur, India.

It brings me great joy to acknowledge the commendable efforts of the Department of Computer Science and Application at Atal Bihari Vajpayee University, Bilaspur, India, for organizing this significant event in collaboration with American University of Management and Technology (AIMT) USA and the University of Maryland Eastern Shore, USA. The multidisciplinary nature of this conference reflects a commitment to fostering knowledge exchange and collaboration on a global scale.

I am particularly pleased to note that the conference will host distinguished experts from around the world who will share their insights and expertise. Such gatherings provide invaluable opportunities for learning, networking, and the exchange of innovative ideas that contribute to the advancement of science, management, and technology.

I would like to commend Dr. H.S. Hota, the Head of the Department, for his continuous dedication and efforts in elevating the department's stature on the international stage. His commitment to excellence is evident in the growth and reputation the department has achieved.

As the President of The Global Knowledge Foundation, I express my best wishes for the resounding success of this international event. I am honored to announce my participation in this conference and look forward to engaging in insightful discussions, learning from esteemed colleagues, and contributing to the overall success of the event.

May this conference be a platform for fruitful discussions, collaborative initiatives, and the sharing of groundbreaking research. I wish everyone involved the very best and look forward to a successful and enriching experience in Bilaspur, India.





**DR. DINESH K. SHARMA**

**Editor-In-Chief**

The Global Knowledge  
Foundation, USA

The Department of Business, Management and Accounting at the University of Maryland Eastern Shore, USA, is pleased and proud to be one of the collaborators for the International Conference on Innovative Research in Science, Management, and Technology (ICIRSMT2024), which is being organized by the Department of Computer Science and Application, Atal Bihari Vajpayee University, Bilaspur (C.G.), India, and Jai Narain Vyas University, Jodhpur, India, in association with the American Institute of Management and Technology (AIMT), USA, and Maryam Abacha American University of Nigeria.

During this time, one of the challenges for academics is to use their highly specialized research across different domains of human information and participate in interdisciplinary studies. For researchers, this phenomenon is increasingly unavoidable. The capacity of technology, mathematics, management, and innovation to conduct quantitative and qualitative research has propelled various sectors forward in terms of volume and applications. I am confident that this conference will result in intellectually stimulating exchanges and good ideas that will be globally beneficial.

Please accept our well wishes for a successful international conference.



## Wastewater treatment for the textile industry under sustainable supply chain management

**DR. BISWAJIT SARKAR**  
Hwalchun Endowed Professor  
Department of Industrial Engineering,  
Yonsei University, Seoul, South Korea



The textile industry is one of the sources of wastewater. This wastewater is contaminated with chemicals and is one of the main sources of water pollution. These chemicals come from dyestuffs for color, which are used to color a garment. This research studies one of the possible solutions for wastewater treatment from the system, where two types of products are involved: garments and dyestuffs. This research suggests a photo-catalytic process under ultraviolet ray to refine wastewater under the consideration of energy. The energy usage for that process is considered in this research, along with multiple categories of labor. Labors are categorized for the usage of smart production for the garment production. The entire system is under an emissions control facility. Results are found using metaheuristic approaches, and particle swarm optimization provides the best result of than other two methods. It is found that skilled labors are the most sensitive for a textile industry with a smart production system to treat wastewater.





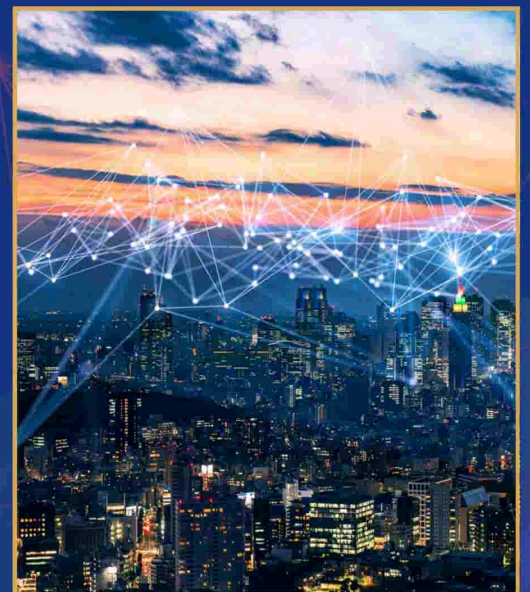
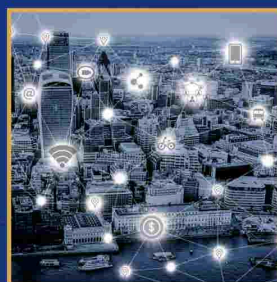
## Network Security in IoT Environment

**DR. RAKESH SHARMA**  
University of Maryland  
Eastern Shore, USA



In the rapidly evolving landscape of technology, the Internet of Things (IoT) has emerged as a transformative force, connecting an ever-expanding array of devices and systems. While this interconnectedness offers unprecedented convenience and efficiency, it also introduces new challenges and risks to network security. Network security in the IoT environment is crucial to safeguarding the integrity, confidentiality, and availability of data transmitted between devices. The sheer diversity of IoT devices, ranging from smart home appliances to industrial sensors, presents a complex security landscape that requires a multifaceted approach. Addressing the unique challenges of network security in the IoT environment requires a holistic and adaptive approach. By combining innovative technologies, industry collaboration, and robust security practices, organizations can establish a secure foundation for the expanding world of interconnected devices.

Securing the IoT environment demands a comprehensive strategy that encompasses encryption, authentication, regular updates, and vigilant monitoring. As IoT continues to shape the future, prioritizing network security is imperative to realize the full potential of this interconnected world while mitigating the associated risks.





## Higher Education Partnerships their contribution to achieving local and global standards.

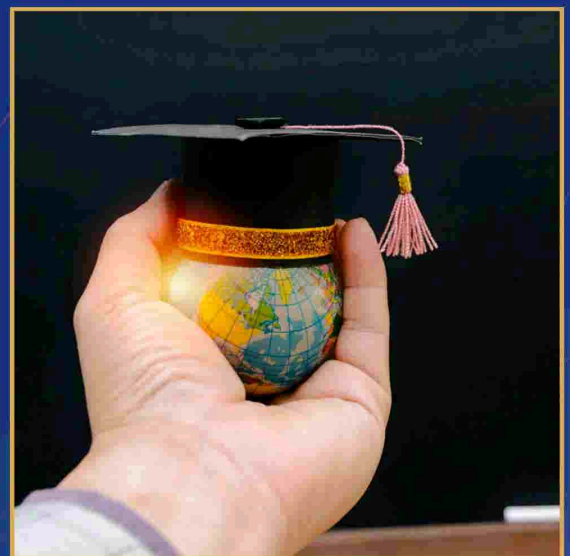
**PROF. ASHISH GADEKAR**  
Amity University of Higher  
Education, Mauritius



Today's higher education sector is way different that previous in terms of agility, flexibility, pedagogy and relevance to the industry, which undoubtedly is portraying their pivotal role in fostering academic excellence, driving innovation, and achieving global educational standards. Hence, new mantra for inclusive and sustainable growth, 'competition through collaboration', aptly describes the extremely high relevance of local and international partnership. The demand for better quality of education, is raising the bar, which is good for the sector..

Partnership could be motivated by the basic principles of, 'outsourcing' followed by industries to harness best beyond the inhouse capacity in cost effective manner. Organisations may start by sharing the intellectual capabilities and further develop it into sharing or tangible resources. Establishing institutional and university partnerships in higher education can be facilitated through various means. One approach is fostering academic exchanges such as student exchange programs, joint research initiatives, and faculty collaborations, there by promoting global citizenships, understanding of local expertise and issues, cultural understanding and diversity. Furthermore, credit transfers, experiential learning, and dual-degree programs can broaden academic opportunities for students across borders.

Although partnerships comes with plethora of opportunities the challenges persist in their implementation. These challenges are mainly by virtue of traditional academic systems, political systems, bureaucratic barriers, cultures, economic development and industrial demand. Before the partnership is announced resolution of these visible and evident challenges is must, which could be possible only through meticulous planning, effective communication, mutual trust, and a shared vision among partner institutions.





## Modelling consumer behaviour when switching brands.

**PROF. R. SIVASAMY**

Botswana International University of  
Science and Technology, Botswana



Businesses such as restaurants offer different services, such as "A" or "B" or "C", to heterogeneous customers that try to learn their customers' preferences gradually over time using updated information. This article considers a company that offers two types of services, A and B, to each potential customer in each market period for one unit of product. The company aims to (i) minimize service costs by matching the right product to the right customer and (ii) maximize long-term revenue based on updated information about customer needs.

This study examines a company that provides each potential customer with one unit of product initially during the infinitesimal interval  $(t, t+0]$  and one unit of product during the transition period  $(t, t+1]$  when  $t=0, 1, 2, \dots, \infty$ . With the appropriate matching of product and customer, the company hopes to (i) reduce service costs, and (ii) optimize long-term revenue based on updated data and learning about customer needs. The company allows a customer relationship management (CRM) team to forecast consumer base preferences using current data to investigate the worth of learning and how learning interacts with the company's daily marketing efforts. To focus on transition probabilities between products A and B, production costs, service costs, and predicted profit values as a function of  $\lambda t$ , the fraction of type A product for  $t=0$  and  $t=1$ , we introduce three forms of CRM: (i) no CRM, (ii) perfect CRM, and Markov CRM.

Closed-form formulations for probability functions and predicted probability functions are developed by drawing on the theoretical foundation of transient and stationary features of Markov processes. The profitability of the three CRMs is then compared using numerical and graphical representations based on fictitious input datasets, and it is demonstrated that the Markov CRM case outperforms both the perfect CRM match and no CRM.



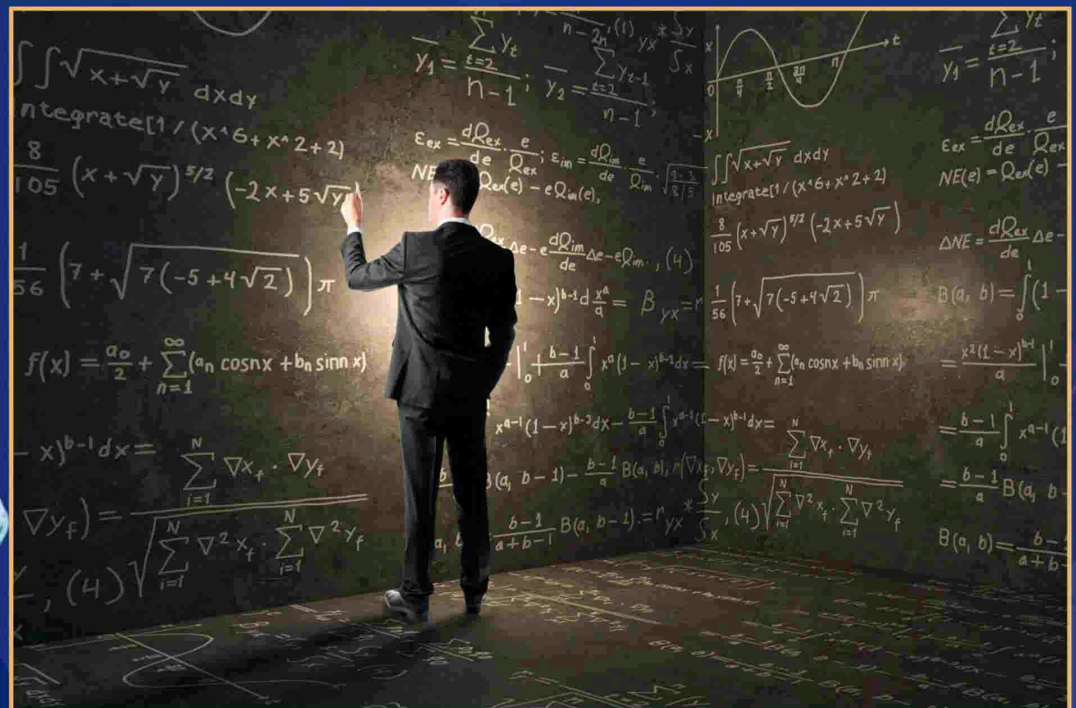


# Parallel Algorithms for Generating Maximum-Period Linear Feedback Shift Registers

**DR. DANIEL OKUNBOR**  
 Fayetteville State  
 University, USA



Linear feedback shift registers are used in cryptography and other applications to generate pseudorandom or pseudo-random-noise sequences. Although, linear feedback shift registers dates back many decades, they possess very interesting mathematical properties that make them still very important in today's research in Mathematics, Computer Science and Engineering. In this paper, different implementations of linear feedback shift registers are discussed. Linear feedback shift registers that have maximum periods are usually sought after in cryptography, because they allow for the generation of long sequences. This paper examines the generation of maximum-period linear feedback shift registers using distributed parallel computing approach. Although, this may not the best approach, but it will provide a better understanding of linear feedback shift registers and how to implement them in software.



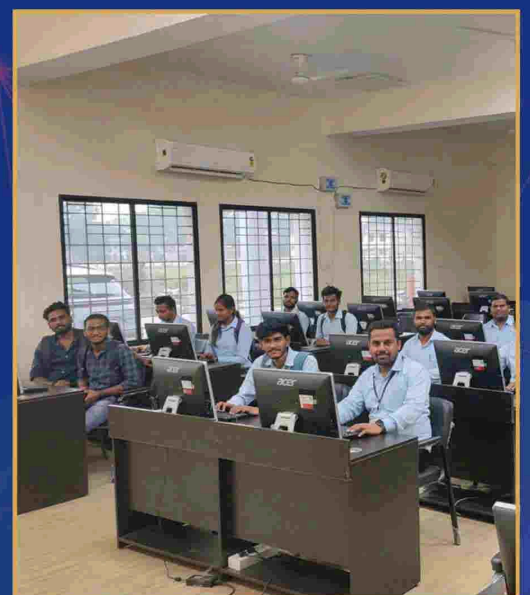


## ABOUT DEPARTMENT

The Department of Computer Science was established in the year 2012 with the vision to become a center of excellence in computer education and research. The department took its first major step towards achieving this vision by launching its undergraduate program in the year 2013. Since then, it has grown significantly, offering a wide range of programs to cater to the evolving needs of the computer science field. Currently, the department offers undergraduate (UG) and postgraduate (PG) programs, including Master of Computer Applications (MCA) and Master of Technology (M.Tech.) in Computer Science. These programs are approved by the All India Council for Technical Education (AICTE), ensuring high-quality education and adherence to industry standards.

One of the key strengths of the department is its dedicated and well-qualified faculty members. The department takes pride in its team of experienced professors and industry experts who are passionate about teaching and research. These teachers bring a wealth of knowledge and practical experience to the classroom, ensuring that students receive a holistic education that combines theory with real-world applications.

The department boasts state-of-the-art infrastructure, including four programming labs equipped with the latest 17 computers and interactive panels. These labs provide students with a conducive environment for hands-on learning and practical implementation of concepts. Additionally, the department has a smart classroom facility that enhances the learning experience through modern teaching aids and technologies. The department is committed to fostering a culture of continuous learning and knowledge exchange. To achieve this, it organizes various workshops, seminars, and expert lecture series on a regular basis. These events bring together industry experts, researchers, and students to share insights, discuss emerging trends, and explore the latest advancements in the field of computer science.





## PROGRAMME OFFERED

### B.Sc. (Hons) CS

Eligibility Criteria -

**12<sup>th</sup> with at least 45%  
Marks**

**No of seats - 40** Duration : 3 years

### M.Sc. (CS)

Eligibility Criteria -

**BCA/B.Sc. (CS) B.Sc. (IT) or  
equivalent with at least 45%  
Marks**

**No of seats - 40** Duration : 2 years

(Approved by AICTE)

### M.Tech. (CS)

Eligibility Criteria -

- B.E. / B. Tech./MCA/MSc. (CS) are equivalent with at least 50% Marks
- GATE Score (for Scholarship)

**No of seats - 18** Duration : 2 years

(Approved by AICTE)

### MCA

Eligibility Criteria -

**BCA/B.Tech.(CS) or equivalent or  
B.Sc./B.Com /BA with Maths at  
10+2 level or at graduation level  
with at least 50% marks**

**No of seats - 60** Duration : 2 years

## Certificate Programs

Under Dual Degree Program



**Cyber Security  
and Cyber Law**

**Python  
Programming**

**ICT for  
Teaching  
Learning**

**Android App  
Development**

**Web Technology**

Eligibility Criteria - **Any graduate** | Duration : **6 Months** | No of seats - **30**





Department of Computer Science & Application  
Atal Bihari Vajpayee University, Bilaspur (C.G.)

# CHHATTISGARH ARTIFICIAL INTELLIGENCE

A VISION FOR AI SENSITIZATION &  
ADVANCEMENT



CONCEPT BY

Dr. H.S. Hota  
Professor and Head





We (Bank of Baroda) take pride in introducing ourselves as India's 2nd largest public sector bank on account of retail customer base and corporate business. We are a strong Financial Powerhouse providing financial services to over 14 crores customers globally through a network of 8187 branches and over 9200 ATMs across India. Our overseas business operations extend across 19 countries through 96 branches/offices and have presence across all time zones around the globe and are proud to be India's International Bank. Our bank has various range of Product which include:

**Loans-** Auto Loan, Personal Loan, Msme Loan, Education Loan, Gold Loan

**Accounts-** saving Account, salary account, FD and RD account, Current account.

**Digital Product:** Phone banking, internet banking, BCMS, Credit card and debit card

**Investment** - Mutual Funds, De-mat account, PPF, SGB, Senior citizen deposit scheme, E-KVP etc.

Looking to specific need of the University staff and student our bank has specially designed few Product:



### University

- Building Loan
- Loans for Buses
- Baroda cash Management facility
- Payment Gateway
- POs and fees account

### Staff

- Baroda salary account
- Car Loan & Personal Loan
- Credit Card
- Overdraft Facility

### Student

- Saving account for student
- Education Loan
- Fees payment facility