

NATIONAL CONFERENCE SOUVENIR

National Conference on

**“New Tendencies in Indian Education:
Integrating Arts, Science, Commerce & Pedagogy”**

10th & 11th April 2026

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About the Conference

**Exploring interdisciplinary learning in Arts, Science, Commerce & Pedagogy
to foster innovative educational practices.**

Welcome Note

**We warmly welcome all participants and contributors.
Let's make this event inspiring and successful!**

“Education is the bridge between knowledge and innovation.”

दिया कुमारी

उप मुख्यमंत्री

Diya Kumari

Deputy Chief Minister



वित्त, सार्वजनिक निर्माण, पर्यटन, कला, साहित्य, संस्कृति और पुरातत्व,
महिला एवं बाल विकास, बाल अधिकारिता विभाग,
राजस्थान सरकार

Finance, PWD, Tourism, Art, Literature, Culture and
Archaeology, W&CD and Child rights Department
Government of Rajasthan



दिनांक – 07-04-2026

शुभकामना संदेश

यह हर्ष का विषय है कि मेहता कॉलेज एंड इंस्टीट्यूट ऑफ टेक्नोलॉजी, जयपुर द्वारा एक राष्ट्रीय सम्मेलन "New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy." का 10 व 11 अप्रैल, 2026 को आयोजन किया जा रहा है और इस अवसर पर एक स्मारिका का प्रकाशन भी किया जाएगा। इस सुअवसर पर मेरी ओर से बहुत-बहुत बधाई और शुभकामनाएं।

वर्तमान समय में शिक्षा केवल ज्ञानार्जन का माध्यम नहीं, बल्कि व्यक्तित्व निर्माण, नवाचार और राष्ट्र निर्माण की आधारशिला बन चुकी है। नई शिक्षा नीति के अंतर्गत कला, विज्ञान, वाणिज्य और शिक्षाशास्त्र के समन्वय पर विशेष बल दिया गया है, जिससे विद्यार्थियों में समग्र विकास, रचनात्मक सोच एवं व्यावहारिक कौशल का विकास हो सके। इस प्रकार के राष्ट्रीय सम्मेलन न केवल शिक्षाविदों के बीच सार्थक संवाद को प्रोत्साहित करते हैं, बल्कि शिक्षा के क्षेत्र में नवाचार और उत्कृष्टता के नए आयाम भी स्थापित करते हैं।

मुझे पूर्ण विश्वास है कि यह सम्मेलन विशेषज्ञों के विचार मंथन व वार्ता से शिक्षकों, शोधार्थियों एवं विद्यार्थियों के लिए ज्ञान-व उत्साहवर्धन का एक सशक्त मंच सिद्ध होगा तथा भारतीय शिक्षा प्रणाली को और अधिक सुदृढ़ एवं प्रभावी बनाने में महत्वपूर्ण योगदान देगा।

मैं सभी प्रतिभागियों के उज्ज्वल भविष्य की कामना करती हूँ। जानकारियों से परिपूर्ण यह स्मारिका प्रकाशन अपने उद्देश्यों को प्राप्त करें इन्हीं मंगलकामनाओं के साथ—

(दिया कुमारी)

डॉ पंकज कुमार सोनी जी,

प्राचार्य, मेहता कॉलेज एंड इंस्टीट्यूट ऑफ टेक्नोलॉजी,

उदयपुरिया, हरमाडा, सीकर रोड,

जयपुर

Message for Conference Souvenir



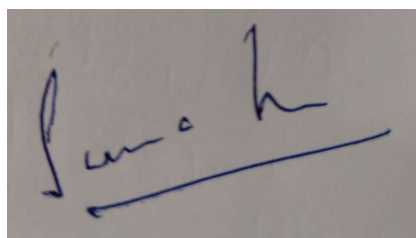
It gives me immense pleasure to extend my warm greetings on the occasion of the National Conference on “*New Tendencies in Indian Education: Integrating Arts, Science, Commerce & Pedagogy*” scheduled to be held on 10th and 11th April 2026.

In the present era of rapid scientific and technological advancement, education must evolve as an integrated and interdisciplinary system. The convergence of Arts, Science, Commerce, and Pedagogy is essential to foster innovation, critical thinking, and holistic development among learners. Such an approach not only strengthens academic foundations but also prepares individuals to address complex global challenges with creativity and scientific temper.

With my long experience in teaching, research, and academic administration, I firmly believe that collaborative platforms like this conference play a vital role in bringing together academicians, researchers, and practitioners to exchange ideas and explore new frontiers in education. The integration of diverse disciplines will significantly contribute to strengthening our educational framework and promoting research-driven learning.

I commend the organizers for selecting such a relevant and forward-looking theme. I am confident that the deliberations and outcomes of this conference will provide meaningful insights and contribute to the advancement of quality education in India.

I extend my best wishes for the grand success of the conference.



Prof. (Dr.) Suresh C. Joshi
Former Vice Chancellor, Lords University, Alwar
Former Professor & UGC-Emeritus Fellow
University of Rajasthan, Jaipur

Message for Conference Souvenir



It gives me immense pleasure to extend my warm greetings on the occasion of the National Conference on “New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy,” to be held on 10th and 11th April 2026 at Mehta College and Institute of Technology, Jaipur.

Education today is going through a significant phase of change, where the need to bring different disciplines together is being felt more than ever. The integration of Arts, Science, Commerce, and Pedagogy not only broadens perspectives but also helps in developing well-rounded individuals equipped with knowledge, skills, and critical thinking abilities.

I appreciate the efforts of the organizers in choosing such a meaningful and relevant theme. I am sure this conference will provide a good platform for teachers, researchers, and scholars to come together, share their ideas, and discuss new directions in education.

I sincerely hope that the discussions and outcomes of this conference will contribute positively towards improving and strengthening our education system.

I convey my best wishes for the successful conduct of the conference.

Prof. G.P. Singh

Principal

University Maharaja College

(College with Potential for Excellence)

Sawai Ram Singh Road, Jaipur-302004

Message for Conference Souvenir



It gives me immense pleasure to extend my warm greetings on the occasion of the National Conference on “*New Tendencies in Indian Education: Integrating Arts, Science, Commerce & Pedagogy*” scheduled to be held on 10th and 11th April 2026.

Art and Culture have always been the soul of Indian education, nurturing creativity, critical thinking, and holistic development. In today’s rapidly changing world, the integration of Arts with Science, Commerce, and Pedagogy is not merely desirable but essential for fostering innovation and building a balanced educational framework. Such interdisciplinary approaches enable learners to connect knowledge with real-life experiences, thereby enriching both academic and personal growth.

This conference provides a valuable platform for academicians, researchers, and practitioners to deliberate upon emerging trends and explore meaningful ways to strengthen our education system. The inclusion of Art and Culture in this dialogue will certainly contribute to preserving our rich heritage while encouraging contemporary perspectives.

I sincerely appreciate the efforts of the organizers for conceptualizing such a relevant and thought-provoking theme. I am confident that the deliberations and outcomes of this conference will pave the way for progressive educational reforms and inspire future initiatives.

I extend my best wishes for the grand success of the conference.



Prof. I.U. Khan

Department of Drawing & Painting

University of Rajasthan, Jaipur

Message for Conference Souvenir



It gives me great pleasure to extend my warm greetings on the occasion of the National Conference on “*New Tendencies in Indian Education: Integrating Arts, Science, Commerce & Pedagogy*” to be held on 10th and 11th April 2026.

Geography, as a discipline, serves as a vital bridge between natural and social sciences, offering a comprehensive understanding of the dynamic relationship between humans and their environment. In the context of contemporary education, the integration of Geography with Arts, Science, Commerce, and Pedagogy plays a crucial role in fostering interdisciplinary learning and developing a holistic perspective among students.

In an era marked by global challenges such as climate change, urbanization, and sustainable development, it is essential that education systems adopt innovative and inclusive approaches. The convergence of diverse disciplines not only enhances analytical and critical thinking skills but also equips learners to address real-world problems effectively.

I appreciate the efforts of the organizers in conceptualizing such a relevant and forward-looking theme. This conference will undoubtedly provide a meaningful platform for academicians, researchers, and scholars to exchange ideas, share knowledge, and explore new dimensions in education.

I am confident that the deliberations and outcomes of this conference will contribute significantly towards strengthening interdisciplinary education and promoting sustainable and inclusive development.

I extend my best wishes for the grand success of the conference.



Prof. CV Dhabaria
Professor & Ex-Head, Department of Geography
University of Rajasthan
Convenor, Board of Studies
University of Rajasthan

Message for Conference Souvenir



It gives me immense pleasure to extend my warm greetings on the occasion of the National Conference on “*New Tendencies in Indian Education: Integrating Arts, Science, Commerce & Pedagogy*” scheduled to be held on 10th and 11th April 2026.

Education, in its true sense, is a dynamic and transformative process that shapes individuals and society. In the present era, the need for an integrated and interdisciplinary approach has become more significant than ever. The convergence of Arts, Science, Commerce, and Pedagogy not only enriches the teaching-learning process but also fosters creativity, critical thinking, and holistic development among learners.

As an academician in the field of Education, I strongly believe that innovative pedagogical practices and inclusive learning environments are essential to address the diverse needs of students. Integrating multiple disciplines enables learners to connect theoretical knowledge with practical applications, thereby preparing them to meet the challenges of a rapidly changing world.

I commend the organizers for selecting such a relevant and forward-looking theme. This conference will provide an excellent platform for educators, researchers, and scholars to exchange ideas, share experiences, and explore new dimensions in the field of education.

I am confident that the deliberations and outcomes of this conference will contribute significantly towards strengthening our education system and promoting quality and inclusive education.

I extend my best wishes for the grand success of the conference.

A handwritten signature in blue ink, appearing to read 'Rita', with a long horizontal line extending to the right.

Dr. Rita Sharma
Dean, Faculty of Education, University of Rajasthan &
Principal, Agarsen PG College Keshav Vidyapeeth, Jamdoli, Jaipur

Message for Conference Souvenir

By the President



It gives me immense pleasure to extend my heartfelt greetings to all the distinguished scholars, academicians, researchers, and participants on the occasion of the Sovereign National Conference on “**New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy**”, scheduled on **10th & 11th April 2026**.


Education in India is undergoing a transformative phase, where the boundaries between disciplines are gradually dissolving to create a more holistic, inclusive, and multidisciplinary learning environment. The integration of Arts, Science, Commerce, and Pedagogy reflects a progressive vision aligned with contemporary educational needs and national aspirations.

This conference provides a significant platform for meaningful dialogue, exchange of innovative ideas, and exploration of emerging trends in education. It encourages us to rethink traditional approaches and embrace new methodologies that foster creativity, critical thinking, and skill-based learning among students.

I am confident that the deliberations and discussions during this conference will contribute substantially to academic enrichment and policy perspectives, ultimately strengthening the foundation of our education system.

I extend my sincere appreciation to the organizing committee for their dedicated efforts in conceptualizing and successfully executing this conference. I also thank all the speakers, delegates, and participants for their valuable contributions.

I wish the conference a grand success and hope it leaves a lasting impact on all its participants.

A handwritten signature in blue ink, appearing to read 'Radhey Shyam Sharma'.

Mr. Radhey Shyam Sharma

President

Mehta Educational Society

Message for Conference Souvenir

By the Secretary



It is a matter of great honor and privilege to extend my warm greetings to all the distinguished academicians, researchers, educators, and participants attending the Sovereign National Conference on “**New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy**”, being held on **10th & 11th April 2026**.

In the present era of dynamic change and innovation, the education system in India is witnessing a significant shift towards multidisciplinary and holistic learning. The integration of Arts, Science, Commerce, and Pedagogy is not only essential for academic growth but also for nurturing well-rounded individuals equipped with critical thinking, creativity, and practical skills.

This conference serves as a valuable platform for intellectual exchange, where ideas converge, experiences are shared, and new perspectives emerge. It is an opportunity to deliberate on emerging educational trends and to collectively explore pathways to strengthen our academic framework in alignment with contemporary global standards.

I sincerely appreciate the untiring efforts of the organizing committee, faculty members, and volunteers whose dedication has made this conference possible. I also extend my gratitude to the esteemed speakers and participants for their enthusiastic involvement and scholarly contributions.

I am confident that this conference will be highly enriching and will inspire meaningful outcomes for the future of education.

Wishing the conference every success.

A handwritten signature in black ink, appearing to read 'R. Sharma', with a long horizontal flourish extending to the right.

Mr. Ram Babu Sharma

Secretary

Mehta Educational Society

Message for Conference Souvenir

By the Vice President



It gives me immense pleasure to extend my warm greetings to all the esteemed academicians, researchers, educators, and participants on the occasion of the Sovereign National Conference on “**New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy**”, scheduled on **10th & 11th April 2026**.

The evolving landscape of Indian education calls for a progressive and integrated approach that bridges disciplines and fosters holistic development. The convergence of Arts, Science, Commerce, and Pedagogy not only enriches the learning experience but also prepares learners to meet the challenges of a rapidly changing world with confidence and competence.

This conference provides a significant platform for thoughtful deliberations, exchange of innovative ideas, and collaborative engagement among scholars and practitioners. Such academic forums play a vital role in shaping the future of education by encouraging interdisciplinary dialogue and promoting research-driven insights.

I would like to express my sincere appreciation to the organizing committee for their dedicated efforts and meticulous planning in making this conference a reality. I also extend my gratitude to all the distinguished speakers and participants for their valuable contributions.

I am confident that the discussions and outcomes of this conference will leave a lasting impact and contribute meaningfully to the advancement of education in India.

Wishing the conference great success and a rewarding experience for all.

Mr. Rajesh Kumar Sharma

Vice President

Mehta Educational Society

Message for Conference Souvenir

By the Deputy Secretary



It is a matter of great pleasure to extend my warm greetings to all the distinguished scholars, academicians, educators, and participants attending the Sovereign National Conference on “**New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy**”, being held on **10th & 11th April 2026**.

In the contemporary educational landscape, the need for an integrated and multidisciplinary approach has become increasingly significant. The harmonious blending of Arts, Science, Commerce, and Pedagogy not only enhance academic excellence but also fosters innovation, creativity, and critical thinking among learners.

This conference provides an excellent platform for meaningful interaction, exchange of ideas, and exploration of new dimensions in education. It offers an opportunity for scholars and practitioners to reflect upon current trends and contribute towards shaping a more inclusive, dynamic, and future-ready education system.

I would like to sincerely appreciate the dedicated efforts of the organizing committee, faculty members, and volunteers who have worked tirelessly to make this event a success. I also extend my gratitude to all the speakers and participants for their valuable insights and active involvement.

I am confident that this conference will be enriching and impactful, leaving a lasting impression on all participants.

Wishing the conference every success.

A handwritten signature in black ink, appearing to read 'Ramesh'.

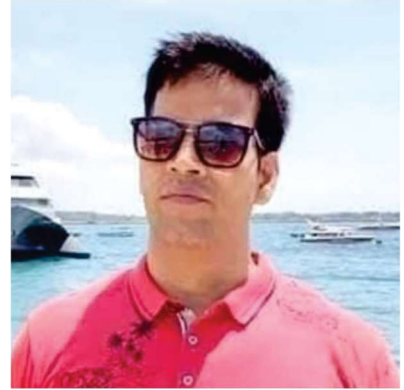
Mr. Ramesh Chand Sharma

Deputy Secretary

Mehta Educational Society

Message for Conference Souvenir

By the Treasurer



It gives me immense pleasure to extend my warm greetings to all the distinguished academicians, researchers, educators, and participants attending the Sovereign National Conference on “**New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy**”, scheduled on **10th & 11th April 2026**.


In today’s rapidly evolving educational environment, the integration of diverse disciplines such as Arts, Science, Commerce, and Pedagogy plays a crucial role in fostering holistic development and innovative thinking. Such multidisciplinary approaches are essential for preparing learners to meet the demands of a dynamic and knowledge-driven society.

As Treasurer, I am particularly pleased to note that this conference reflects not only academic excellence but also effective planning, coordination, and resource management. The successful organization of such a significant event is a testament to the collective efforts, commitment, and teamwork of the organizing committee.

This conference serves as a valuable platform for intellectual exchange, collaboration, and the sharing of research insights. I am confident that the deliberations and outcomes will contribute meaningfully to strengthening the educational framework and promoting progressive practices in teaching and learning.

I extend my sincere appreciation to all the organizers, speakers, and participants for their valuable contributions and enthusiastic involvement.

Wishing the conference a grand success and a rewarding experience for all.

A handwritten signature in blue ink, appearing to read 'Girdhari'.

Mr. Girdhari Lal Sharma

Treasurer

Mehta Educational Society

Message for Conference Souvenir

By the Deputy Treasurer



It gives me great pleasure to extend my warm greetings to all the esteemed academicians, researchers, educators, and participants on the occasion of the Sovereign National Conference on “**New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy**”, scheduled on **10th & 11th April 2026**.

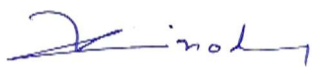
In the present era, the education system is evolving towards a more integrated and multidisciplinary approach, where the synergy of Arts, Science, Commerce, and Pedagogy plays a vital role in shaping well-rounded individuals. Such initiatives not only enhance academic excellence but also promote innovation, creativity, and practical understanding.

This conference stands as a testament to collaborative effort, thoughtful planning, and efficient management of resources. It provides a meaningful platform for the exchange of ideas, research insights, and best practices among scholars and practitioners from diverse fields.

I sincerely appreciate the dedicated efforts of the organizing committee, faculty members, and volunteers whose commitment has made this event possible. I also extend my gratitude to all the speakers and participants for their valuable contributions.

I am confident that the conference will be highly enriching and will leave a lasting impact on all who are part of it.

Wishing the conference every success.



Mr. Vinod Kumar Sharma

Deputy Treasurer

Mehta Educational Society

प्राचार्य
मेहता कॉलेज एवं इंस्टीट्यूट ऑफ टेक्नोलॉजी
हरमाड़ा, सीकर रोड, जयपुर (राजस्थान)



विषय: राष्ट्रीय सम्मेलन स्मारिका हेतु संदेश

महोदय,

आपका पत्र क्रमांक MCIT/2026/2761 दिनांक 08/04/2026, जिसमें आपने "New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy" विषय पर 10 एवं 11 अप्रैल 2026 को आयोजित होने वाले राष्ट्रीय सम्मेलन की स्मारिका हेतु प्रेरणादायक संदेश प्रदान करने का अनुरोध किया है, प्राप्त हुआ। इसके लिए मैं आपका आभार व्यक्त करता हूँ। मेहता कॉलेज एवं इंस्टीट्यूट ऑफ टेक्नोलॉजी द्वारा इस प्रकार के राष्ट्रीय स्तर के शैक्षणिक आयोजन की पहल सराहनीय है।

मुझे स्मारिका में प्रकाशन हेतु अपना संदेश साझा करते हुए प्रसन्नता हो रही है:

संदेश:

"वर्तमान वैश्विक एवं प्रतिस्पर्धी परिवेश में शिक्षा प्रणाली में बहुविषयक और समन्वित दृष्टिकोण को अपनाना अत्यंत आवश्यक हो गया है, जिसमें कला, विज्ञान, वाणिज्य तथा शिक्षाशास्त्र का संतुलित समावेश सुनिश्चित किया जाए।


यह राष्ट्रीय सम्मेलन भारतीय शिक्षा में उभरती हुई नवीन प्रवृत्तियों पर सार्थक विमर्श हेतु एक उत्कृष्ट मंच प्रदान करता है। यह पहल शैक्षिक गुणवत्ता के संवर्धन के साथ-साथ समावेशी एवं समग्र शिक्षा प्रणाली के निर्माण में भी महत्वपूर्ण भूमिका निभाएगी।

मैं इस महत्वपूर्ण आयोजन के लिए आयोजकों को हार्दिक बधाई देता हूँ तथा सभी प्रतिभागियों की सफल एवं सार्थक सहभागिता की कामना करता हूँ। मुझे विश्वास है कि यह सम्मेलन शिक्षा के क्षेत्र में सकारात्मक परिवर्तन लाने में सहायक सिद्ध होगा।"

मैं सम्मेलन की सफलता हेतु अपनी हार्दिक शुभकामनाएँ प्रेषित करता हूँ तथा आपके संस्थान की निरंतर उन्नति एवं उत्कृष्ट उपलब्धियों की कामना करता हूँ।

सादर,

For SANTOSH STEEL


Proprietor

(कन्हैया लाल शर्मा)

चेयरमैन

संतोष स्टील

राजावास, जयपुर

Message for Conference Souvenir

By the Member



It is indeed a matter of great pride and pleasure to extend my heartfelt greetings to all the distinguished academicians, researchers, educators, and participants on the occasion of the Sovereign National Conference on “**New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy**”, being held on **10th & 11th April 2026**.

Education serves as the cornerstone of societal progress, and in today’s rapidly transforming world, the need for an integrated and multidisciplinary approach has become more important than ever. The convergence of Arts, Science, Commerce, and Pedagogy reflect a forward-looking vision aimed at nurturing holistic development, critical thinking, and innovation among learners.

This conference provides an excellent platform for intellectual engagement, meaningful dialogue, and the exchange of progressive ideas. It brings together scholars and practitioners who are committed to enhancing the quality and relevance of education in India.

I sincerely appreciate the dedicated efforts of the organizing committee, faculty members, and volunteers for their tireless work in organizing this conference. I also extend my gratitude to all the speakers and participants for their valuable contributions and active participation.

I am confident that the deliberations and outcomes of this conference will contribute significantly to the advancement of our education system and inspire future academic endeavors.

Wishing the conference a grand success and a memorable experience for all.



Mrs. Deepti Sharma

Member

Mehta Educational Society

Message for Conference Souvenir

By the Member



It is a great honor and privilege to extend my warm greetings to all the respected academicians, researchers, educators, and participants on the occasion of the Sovereign National Conference on **“New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy”**, scheduled on **10th & 11th April 2026**.

In today’s dynamic educational environment, the integration of diverse disciplines such as Arts, Science, Commerce, and Pedagogy is essential for fostering holistic learning and innovation. This multidisciplinary approach not only enriches academic perspectives but also equips learners with the skills and adaptability required in a rapidly changing world.

This conference provides a valuable platform for emerging and experienced scholars alike to engage in meaningful discussions, share insights, and explore new trends in education. It is particularly inspiring for young members of the academic community to be part of such an intellectually stimulating environment.

I sincerely appreciate the efforts of the organizing committee, faculty members, and volunteers whose dedication has made this conference possible. I also extend my gratitude to all the speakers and participants for their valuable contributions and enthusiastic participation.

I am confident that this conference will be a rewarding and enriching experience for all and will contribute positively to the future of education in India.

Wishing the conference every success.

A handwritten signature in black ink, appearing to read 'Sonu Sharma'.

Mrs. Sonu Sharma

Member

Mehta Educational Society

Message for Conference Souvenir

By the Principal



It gives me immense pleasure to extend my warm greetings to all the distinguished academicians, researchers, educators, and participants on the occasion of the Sovereign National Conference on “**New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy**”, scheduled on **10th & 11th April 2026**.

Education today is witnessing a paradigm shift towards a more holistic and multidisciplinary approach. The integration of Arts, Science, Commerce, and Pedagogy is not only essential for academic excellence but also for nurturing creativity, critical thinking, and problem-solving abilities among students. Such an approach aligns well with the evolving needs of society and the vision of modern education in India.

This conference serves as a significant platform for intellectual discourse, exchange of innovative ideas, and exploration of emerging trends in the educational landscape. It provides an opportunity for scholars and practitioners to come together and contribute towards strengthening the academic framework and promoting quality education.

I take this opportunity to appreciate the dedicated efforts of the organizing committee, faculty members, and volunteers whose hard work and commitment have made this conference possible. I also extend my sincere gratitude to all the speakers and participants for their valuable contributions.

I am confident that this conference will be highly enriching and will leave a lasting impact on all participants, inspiring new ideas and future collaborations.

Wishing the conference grand success.

A handwritten signature in black ink, appearing to read 'Pankaj Soni'. The signature is stylized with a large, sweeping initial 'P'.

Dr. Pankaj Kumar Soni

Principal

Mehta College & Institute of Technology

Message for Conference Souvenir

By the Principal



It gives me immense pleasure to extend my warm greetings to all the esteemed academicians, teacher educators, researchers, and participants on the occasion of the Sovereign National Conference on “**New Tendencies in Indian Education: Integrating Arts, Science, Commerce and Pedagogy**”, scheduled on **10th & 11th April 2026**.

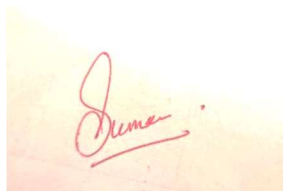
Teacher education plays a pivotal role in shaping the future of our nation, and in the present era, it demands an integrated and multidisciplinary approach. The convergence of Arts, Science, Commerce, and Pedagogy is essential for preparing competent, reflective, and innovative educators who can effectively address the diverse needs of learners.

This conference provides a valuable platform for teacher educators and scholars to engage in meaningful discussions, share best practices, and explore emerging trends in teaching-learning processes. It encourages the adoption of innovative pedagogical strategies that enhance the quality of education and promote holistic development.

I sincerely appreciate the efforts of the organizing committee, faculty members, and volunteers whose dedication and commitment have made this conference possible. I also extend my heartfelt gratitude to all the speakers and participants for their valuable contributions.

I am confident that the deliberations of this conference will significantly contribute to the advancement of teacher education and inspire new directions in academic and professional practices.

Wishing the conference every success.

A handwritten signature in red ink, appearing to read 'Suman', with a horizontal line underneath.

Dr. Suman Choudhary

Principal

Mehta Teacher Training College

**NATIONAL CONFERENCE ON-
NEW TENDENCIES IN INDIAN
EDUCATION:
INTEGRATING ARTS, SCIENCE,
COMMERCE & PEDAGOGY
(NTIE-IASCP 2k26)
10-11 APRIL, 2k26**

Organized by:



**Mehta College & Institute of
Technology
Harmara, Jaipur, Rajasthan, India
www.mehtacollege.com**

PROGRAM SCHEDULE

DAY-1 (Friday), April 10, 2k26 (09:30 AM onwards)

Date	Session / Event	Chairperson	Keynote Speaker	Keynote Title
10 th April 2026 (11:15 AM to 01:15 PM)	Technical Session I (Offline)	Dr. Ghanshyam Kacchawa – Assistant Professor, Department of Zoology	Dr. Santosh Charan – Assistant Professor, Department of Zoology	“Interdisciplinary Integration in Higher Education”
10 th April 2026 (02:30 PM to 03:30 PM)	Technical Session II (Offline)	Dr. Rekha Goar, Principal, Sneh TT College, Jaipur	Dr. Jitendra Kumar Lodha, Professor, RL Saharia Govt PG College, Kaladera	“मूल्य और तर्क आधारित शिक्षा (Value and Reason- based Education)”
10 th April 2026 (02:30 PM to 03:30 PM)	Technical Session III (Offline)	Dr Rita Sharma, Principal, Agarsen PG College, Jaipur	Dr. Sanjay Sharma, IKS Director, JECRC University, Jaipur	“IKS (Indian Knowledge System)”

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PROGRAM SCHEDULE

DAY-2 (Saturday), April 11, 2k26 (09:30 AM onwards)

Date	Session / Event	Chairperson	Keynote Speaker	Keynote Title
11th April 2026 (09:30 AM to 11:15 AM)	Technical Session IV (Offline)	Dr. Sarita Kumari – Associate Professor, Department of Physics, University of Rajasthan, Jaipur	Dr. Narendra Jhakar – Assistant Professor, Department of Physics, University of Rajasthan, Jaipur	“Empowering Rural India: The Role of Science and Technology in Rural Development for Viksit Bharat@2047”
11th April 2026 (09:30 AM to 11:15 AM)	Technical Session V (Offline)	Prof. I.U. Khan– Professor, Department of Drawing and Painting, University of Rajasthan	Dr. Rajendra Prasad – Assistant Professor, Department of Drawing and Painting, University of Rajasthan	“Transformative Reforms under National Education Policy 2020”
11th April 2026 (11:30 AM to 01:15 PM)	Technical Session VI (Offline)	Prof. R.N. Jat – Retd. Professor, Department of Mathematics, University of Rajasthan	Prof. Sarina Kalia – Professor, Department of Geography, University of Rajasthan	“Environmental Education and Sustainable Development”
11th April 2026 (11:30 AM to 01:15 PM)	Technical Session-VII (Online)	Dr. Sabiha Khan, Assistant Professor, Mohan Lal Sukhadia University, Udaipur	Dr. Rajendra Sitaram Pawar, Associate Professor in Geography & NCC Officer, Padmeshri Vikhe Patil College of Arts, Science & Commerce, Maharashtra	“Education for Rural and Marginalized Communities”
11th April 2026 (11:30 AM to 01:15 PM)	Technical Session-VIII (Online)	Dr. Lalit Singh Jhala, Assistant Professor, Jai Narain Vyas University, Jodhpur	Dr. Rakesh Kumar, Associate Professor, School of Biotechnology, SMVDU, Katra, J&K	“Multidisciplinary Research Collaborations”

**Road Infrastructure Development, Accessibility, and Economic
Growth in Rajasthan (2010–2025)**
*Road Network Expansion, Regional Connectivity Dynamics, and
Growth Prospects*

Dr Pankaj Kumar Soni
Professor Geography
MA Ph d NET Bed DCS
Principal Mehta College and Institute of Technology

Abstract

Road infrastructure plays a pivotal role in shaping regional accessibility and driving economic transformation, particularly in geographically diverse states such as Rajasthan. This study examines the relationship between road network development, accessibility enhancement, and economic growth in Rajasthan over the period 2010–2035. It analyzes the expansion of national highways, state highways, and rural road networks alongside major policy interventions such as Bharatmala Pariyojana and the Pradhan Mantri Gram Sadak Yojana. The study highlights how improved connectivity has reduced spatial isolation, strengthened rural–urban linkages, and facilitated the movement of goods, services, and labor across regions. The research further evaluates the economic implications of enhanced road infrastructure, including its impact on agricultural commercialization, industrial development, tourism growth, and employment generation. Special attention is given to regional disparities, revealing that while eastern and urbanized regions have experienced faster growth due to better connectivity, western desert areas continue to face infrastructural constraints. Looking ahead to 2035, the study explores future prospects, emphasizing the role of expressways, economic corridors, and smart transport systems in sustaining long-term development.

Overall, the findings suggest that strategic investment in road infrastructure significantly contributes to inclusive growth by improving accessibility and reducing regional inequalities. However, balanced regional planning, maintenance of road quality, and environmentally sustainable practices remain essential to maximize the long-term benefits of infrastructure development in Rajasthan.

Keywords: Road Infrastructure Development; Accessibility; Economic Growth; Regional Connectivity; Rajasthan; Rural Roads; Highway Expansion; Transport Networks; Regional Disparities; Industrial Development; Agricultural Markets; Tourism Development; Infrastructure Planning; Sustainable Development; Economic Corridors; Spatial Integration; Mobility and Accessibility; Infrastructure Policy.

भारतीय ज्ञान प्रणाली: एक समग्र दृष्टिकोण

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शोध सारांश

भारतीय ज्ञान प्रणाली मानव जीवन को समग्र रूप से समझने और विकसित करने की एक प्राचीन तथा सतत परंपरा है। इसमें दर्शन, शिक्षा, विज्ञान, गणित, आयुर्वेद, योग, ज्योतिष, कला, साहित्य और नैतिक मूल्यों का संतुलित समन्वय मिलता है। यह प्रणाली केवल बौद्धिक विकास तक सीमित नहीं है, बल्कि व्यक्ति के शारीरिक, मानसिक, सामाजिक और आध्यात्मिक उत्थान पर समान रूप से बल देती है। गुरुकुल परंपरा, अनुभवजन्य ज्ञान, प्रकृति के साथ सामंजस्य और जीवनोपयोगी कौशल भारतीय ज्ञान परंपरा की प्रमुख विशेषताएँ रही हैं।

वर्तमान वैश्विक परिदृश्य में भारतीय ज्ञान प्रणाली टिकाऊ विकास, नैतिक नेतृत्व, पर्यावरण संरक्षण और मानव कल्याण के लिए महत्वपूर्ण दिशा प्रदान करती है। योग और आयुर्वेद जैसे भारतीय योगदान आज विश्व स्तर पर स्वीकार किए जा चुके हैं। शिक्षा के क्षेत्र में भी भारतीय ज्ञान प्रणाली मूल्य-आधारित शिक्षण, आलोचनात्मक चिंतन और आत्मनिर्भरता को प्रोत्साहित करती है। अतः आधुनिक शिक्षा व्यवस्था में भारतीय ज्ञान प्रणाली का समावेश न केवल सांस्कृतिक विरासत के संरक्षण हेतु आवश्यक है, बल्कि समग्र और संतुलित समाज के निर्माण के लिए भी अत्यंत उपयोगी सिद्ध हो सकता है।

मुख्य शब्द: भारतीय ज्ञान प्रणाली, समग्र शिक्षा, गुरुकुल परंपरा, मूल्य आधारित शिक्षण, सतत विकास

Revisiting Sea Power in the 21st Century: A Geopolitical Analysis of the United States–Iran Conflict through Mahanian Perspective

Dr. Pankaj Kumar Soni

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Abstract

This paper examines the contemporary dynamics of the United States–Iran conflict through the classical lens of Alfred Thayer Mahan’s Sea Power Theory, highlighting its continued relevance in 21st-century geopolitics. The study focuses on the strategic significance of the Strait of Hormuz, a vital maritime chokepoint through which a substantial proportion of global oil trade is transported.

Recent geopolitical developments indicate a shift in regional power assertion, wherein Iran employs a “Sea Denial” strategy—utilizing asymmetric tools such as drones, missiles, and maritime disruptions—to challenge maritime access and exert geopolitical pressure. In contrast, the United States follows a “Sea Control” doctrine, aiming to ensure freedom of navigation and maintain its dominance over global maritime routes.

The research analyzes how these opposing strategies reflect both continuity and transformation in naval warfare by integrating traditional maritime doctrines with emerging dimensions such as cyber warfare, economic sanctions, and advanced military technologies. By situating current developments within Mahan’s theoretical framework, the paper argues that control over sea lanes remains a decisive factor in shaping global power structures, energy security, and international stability.

Furthermore, the study evaluates the broader economic implications of the conflict, including disruptions in global oil supply chains and price volatility, thereby emphasizing the interconnectedness of maritime security and global economic resilience.

The paper concludes that although the nature and modalities of conflict have evolved significantly, the foundational principles of maritime geopolitics remain remarkably consistent. The ongoing United States–Iran tensions exemplify a broader paradigm in which classical strategic thought continues to influence and shape contemporary geopolitical realities.

Keywords: Maritime Geopolitics; Sea Power Theory; Alfred Thayer Mahan; Sea Control; Sea Denial; Strait of Hormuz; United States–Iran Conflict; Naval Strategy; Energy Security; Global Oil Trade; Maritime Chokepoints; Asymmetric Warfare; Cyber Warfare; Strategic Studies

Microplastics in Freshwater Ecosystems of India: Ecotoxicological Perspectives and Research Gaps

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Abstract

Microplastics (MPs), demarcated to be plastic particles measuring smaller approximately 5 mm, are progressively familiar as critical contaminants in freshwater ecosystems. In India, swift urbanization, unfettered disposal of plastics, and inadequate wastewater treatment have led to extensive MP contamination in freshwater biomes like rivers, lakes and reservoirs. This review covers current research on sources, providence, incidence and ecotoxicological impacts of MPs in Indian freshwater environments. It also inspects analytical approaches for detection and quantification like microscopy, Raman spectroscopy, and pyrolysis–gas chromatography–mass spectrometry (Py–GC–MS), Fourier Transform Infrared (FTIR) spectroscopy. Ecotoxicological evidence specifies absorption and accretion of MPs in freshwater biota which led to physiological, behavioral and biochemical anomalies, oxidative stress and reproduction defects. MPs are vectors for heavy metals along with persistent organic pollutants (POP's) increasing collective toxicity risks. Anthropoid exposure through drinking water and ingestion of contaminated aquatic food sources emphasizes an incipient health apprehension. The review recognizes foremost knowledge gaps including a want of standardized methods, limited nanoplastic data and infrequent long-term toxicity studies. Firming waste management, enhancing analytical organization and establishment of general monitoring networks which are crucial to mitigate the environmental and health risks allied with MPs in India's freshwater biomes.

Keywords: Microplastics; Freshwater ecosystems; India; Ecotoxicology; Bioaccumulation; Analytical methods; Pollution management

Comparative Study on the Effect of Sodium Fluoride (NaF) on Chlorophyll Content in *Pennisetum typhoides* var. JKBH-26 and *Capsicum annuum* var. annuum

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Abstract

Fluoride contamination is a growing environmental concern that adversely affects plant growth and physiology. This study evaluates the effect of different concentrations of sodium fluoride (NaF) on chlorophyll-a, chlorophyll-b, and total chlorophyll content in *Pennisetum typhoides* var. JKBH-26 and *Capsicum annuum* var. annuum through pot experiments. Plants were treated with NaF concentrations ranging from 0 (control) to 14 ppm. Chlorophyll contents were measured at pre-flowering, peak-flowering, and post-flowering stages. Results indicated that increasing NaF concentrations significantly reduced chlorophyll levels in both species, with *Pennisetum typhoides* exhibiting higher sensitivity at lower NaF concentrations, while *Capsicum annuum* showed comparatively moderate reductions. The findings highlight species-specific tolerance to fluoride stress and suggest potential implications for crop productivity in fluoride-affected regions.

Key word: Fluoride, environment, chlorophyll content, *Pennisetum typhoides* var. JKBH-26, *Capsicum annuum*, NaF.

किशोरों में अवसाद के संबंध में आत्मघाती व्यवहार

डॉ. ज्योति विजय

सहायक आचार्य

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शोध सारांश

किशोरावस्था जीवन का एक महत्वपूर्ण और संवेदनशील चरण होता है जिसमें व्यक्ति कई मानसिक, सामाजिक और शारीरिक परिवर्तनों से गुजरता है। इस अवस्था में मानसिक स्वास्थ्य समस्याएं विशेष रूप से अवसाद आम होती जा रही हैं। World Health Organization (WHO) के अनुसार, आत्महत्या किशोरों की मृत्यु के प्रमुख कारणों में से एक है। यह शोध इस बात का विश्लेषण करता है कि अवसाद किशोरों में आत्मघाती व्यवहार को किस प्रकार प्रभावित करता है और इसके पीछे के मनोवैज्ञानिक, सामाजिक और पारिवारिक कारण क्या हैं। यह शोध इस गंभीर सामाजिक और मानसिक स्वास्थ्य संकट को समझने और उसके समाधान की दिशा में योगदान देने का प्रयास करता है।

प्रस्तुत शोध में किशोरों में अवसाद के संबंध में आत्मघाती व्यवहार का अध्ययन किया गया है। उद्देश्यपूर्ण यादृच्छिक नमूना विधि से 80 किशोरों का चयन किया गया है, जिसमें से 40 किशोर लड़के और 40 किशोर लड़कियां हैं। आंकड़ों के संकलन के लिए उपकरण के रूप में डॉ. शमीम करीम और रमा तिवारी का अवसाद मापदंड तथा डॉ. देवेन्द्र सिंह सिसोदिया और डॉ. विभूति भटनागर के आत्मघाती व्यवहार संबंधी विचार मापदंड का प्रयोग किया गया।

सांख्यिकी विश्लेषण के लिए माध्य, मानक विचलन, t-परीक्षण और सहसंबंध गुणांक का उपयोग किया गया। प्राप्त निष्कर्षों के अनुसार किशोर लड़कों में, किशोर लड़कियों की तुलना में आत्महत्या के विचार अधिक पाए गए जबकि किशोर लड़कियों में अवसाद का स्तर किशोर लड़कों की तुलना में अधिक पाया गया। साथ ही, किशोर लड़के और किशोर लड़कियों दोनों में आत्मघाती व्यवहार एवं अवसाद के बीच उच्च स्तर का सकारात्मक सहसंबंध पाया गया।

मुख्य शब्द: आत्मघाती व्यवहार, अवसाद, किशोर लड़के, किशोर लड़कियां

MOOCs, SWAYAM, Virtual Laboratories

डॉ. मीनाक्षी जांदू

सहायक आचार्या

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शोध सारांश

MOOCs की अवधारणा सतत ज्ञान की विचारधारा पर आधारित है। इसका मुख्य उद्देश्य शिक्षा को सभी के लिए सुलभ, सरल और किफायती बनाना है। MOOCs पूर्ण रूप से सूचना एवं संप्रेषण तकनीकी (ICT) पर आधारित अवधारणा है। यह एक ऐसी ऑनलाइन शिक्षा प्रणाली है, जिसमें बड़ी संख्या में लोग इंटरनेट के माध्यम से एक साथ पढ़ाई कर सकते हैं।

SWAYAM एक ऑनलाइन शिक्षा प्लेटफॉर्म है, जिसे Government of India ने विद्यार्थियों को गुणवत्तापूर्ण शिक्षा उपलब्ध कराने के उद्देश्य से शुरू किया है। SWAYAM का अर्थ है Study Webs of Active Learning for Young Aspiring Minds, जिसे हिंदी में “युवा जिज्ञासु मस्तिष्कों के लिए सक्रिय शिक्षण का वेब” कहा जा सकता है। यह भारत सरकार द्वारा शुरू किया गया एक ऑनलाइन शिक्षा मंच है, जिसका उद्देश्य गुणवत्तापूर्ण शिक्षा को सभी तक मुफ्त या कम लागत में पहुँचाना है। इस प्रकार, SWAYAM डिजिटल शिक्षा को बढ़ावा देने और देश में शिक्षा की पहुँच बढ़ाने का एक महत्वपूर्ण माध्यम है।

Virtual Laboratories (वर्चुअल प्रयोगशालाएँ)

वर्चुअल प्रयोगशालाएँ आधुनिक शिक्षा प्रणाली का एक महत्वपूर्ण हिस्सा बन चुकी हैं। ये ऐसी ऑनलाइन या कंप्यूटर आधारित प्रयोगशालाएँ होती हैं, जिनकी मदद से छात्र बिना किसी भौतिक लैब में जाए, इंटरनेट या सॉफ्टवेयर के माध्यम से विभिन्न प्रयोग कर सकते हैं। इस तकनीक के कारण अब छात्र घर बैठे ही विज्ञान और तकनीकी विषयों के प्रयोगों को आसानी से समझ सकते हैं। यह तकनीक छात्रों को वास्तविक प्रयोग जैसा अनुभव प्रदान करती है।

मुख्य शब्द: MOOCs, SWAYAM, Virtual Laboratories, सूचना एवं संप्रेषण तकनीकी, ऑनलाइन शिक्षा, डिजिटल शिक्षा, कंप्यूटर आधारित प्रयोगशालाएँ

Gender Equality and Social Inclusion: Pathways to Equitable Development

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Abstract

Gender equality and social inclusion are widely recognized as essential foundations for sustainable and equitable development. However, despite policy advancements and global commitments, inequalities based on gender, caste, class, ethnicity, and other socio-cultural identities continue to persist. This research paper critically examines the dynamic relationship between gender equality and social inclusion, highlighting their combined role in fostering inclusive growth. The study is based on a qualitative review of secondary data drawn from academic literature, policy frameworks, and institutional reports.

The analysis identifies key structural barriers that reinforce gender disparities, including entrenched patriarchal norms, unequal educational opportunities, limited access to economic resources, and underrepresentation in political decision-making. At the same time, the paper explores how social exclusion operates across multiple dimensions, often intensifying marginalization for women belonging to disadvantaged communities. The Indian context is used to illustrate how intersecting social identities shape lived experiences of inequality.

The study further evaluates various policy measures and development strategies aimed at promoting inclusivity, such as educational reforms, gender-sensitive governance, and community-based initiatives. While these interventions have contributed to progress, their impact remains uneven due to gaps in implementation and accessibility.

The paper concludes that achieving meaningful gender equality requires an integrated and intersectional approach that addresses both structural inequalities and social norms. Strengthening institutional mechanisms, encouraging participatory governance, and promoting awareness are crucial for building an inclusive society. The findings contribute to ongoing academic and policy discussions on equity and social justice.

Keywords- Gender Equality, Social Inclusion, Gender Disparities, Social Inequality

“United States–Iran Strategic Rivalry in 2026: Conflict Dynamics, Regional Instability, and Global Geopolitical Implications”

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Abstract

The evolving confrontation between the United States and Iran in 2026 represents a critical phase in contemporary geopolitics, marked by intensified military engagements, strategic competition, and regional destabilization. This study examines the underlying causes, immediate triggers, and broader implications of the conflict, with particular attention to nuclear policy disputes, proxy warfare, and control over strategic maritime routes such as the Strait of Hormuz. The research adopts a qualitative analytical approach, synthesizing recent geopolitical developments, policy responses, and regional security patterns.

The findings suggest that the conflict is not merely bilateral but embedded within a complex network of alliances and rivalries involving Middle Eastern and global powers. Escalations have significantly disrupted energy markets, heightened global economic uncertainty, and increased the risk of wider regional warfare. Furthermore, the study identifies emerging trends such as the growing role of asymmetric warfare, cyber capabilities, and non-state actors in shaping modern conflict dynamics.

From a futurist perspective, the paper outlines multiple possible trajectories, ranging from limited de-escalation and negotiated settlements to prolonged regional instability or broader global confrontation. It argues that the ongoing crisis may accelerate the transition from a unipolar to a multipolar world order, altering long-standing geopolitical alignments and strategic priorities. The study concludes that while short-term conflict management remains possible through diplomatic engagement, the long-term implications of the United States–Iran rivalry will significantly influence global security architecture, energy geopolitics, and international relations in the coming decades.

Keywords: United States–Iran relations, geopolitical conflict (2026), Middle East security, nuclear proliferation, proxy warfare, Strait of Hormuz, energy security, regional instability, global power shift, multipolar world order, military strategy, international relations, economic impact, asymmetric warfare, and strategic rivalry.

“Significance of Rajasthani Folk Art in India”

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Abstract

Rajasthani folk art is a vibrant and integral part of India’s cultural heritage. It reflects the historical continuity, social values, and artistic traditions of the region. Deeply connected to the daily lives of the people, these art forms have developed over centuries and have helped preserve indigenous knowledge systems and community identities. This study examines the importance of Rajasthani folk art within the broader context of Indian culture, with a focus on its role in cultural preservation, socio-economic development, and national identity. Rajasthan, known for its rich artistic traditions, is home to a variety of folk art forms such as miniature painting, Phad painting, Pichwai art, Mandana wall art, and Kathputli (puppet) performances. These art forms are not only decorative but also highly symbolic. They often depict mythological stories, religious themes, and local folklore. They act as visual storytelling mediums that pass cultural knowledge from one generation to another, ensuring the continuity of traditions in a rapidly modernizing society.

From an economic perspective, Rajasthani folk art plays an important role in sustaining livelihoods, especially for rural artisans and marginalized communities. The promotion of handicrafts and traditional art through tourism and government initiatives has created



opportunities for income generation and employment. However, despite its economic potential, this sector faces several challenges, including commercialization, loss of authenticity, and declining interest among younger generations. This study highlights the need for sustainable preservation strategies, including skill development, digital documentation, and institutional support. In conclusion, Rajasthani folk art holds great importance in India as a preserver of cultural heritage, a source of economic empowerment,

and a symbol of artistic excellence. Preserving and promoting these traditions is essential not only for maintaining cultural diversity but also for ensuring inclusive and sustainable development.

Keywords: Rajasthani Folk Art, Cultural Heritage, Traditional Crafts, Social Identity, Indigenous Knowledge, Artisan Livelihood, Cultural Preservation

Transformations and Challenges in the Indian Economy: A Contemporary Analysis

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Abstract

The Indian economy, one of the world's fastest-growing major economies, has witnessed significant structural changes over the past few decades. This paper analyzes the Indian economy's growth, current trends, and major challenges in the context of globalization, policy reforms, and technological advancements. The study focuses on the transformation from an agrarian economy to a diversified structure encompassing agriculture, industry, and a rapidly expanding service sector. Since the 1991 economic liberalization, India has seen significant growth in gross domestic product (GDP), foreign direct investment (FDI), and global trade integration. Policy initiatives such as "Make in India," "Digital India," and "Startup India" have played a key role in promoting industrial development, digital transformation, and entrepreneurial activity. The services sector, particularly information technology and financial services, has emerged as a major contributor to economic growth and job creation.

Despite these achievements, the Indian economy faces several structural challenges. Persistent problems such as unemployment, income inequality, inflation, and regional disparities pose significant obstacles to inclusive growth. The agricultural sector, which still employs a large portion of the population, struggles with low productivity, monsoon dependence, and inadequate infrastructure. Similarly, the industrial sector faces obstacles related to investment, regulatory complexities, and global competition. Furthermore, the research emphasizes the role of sustainable development in shaping the future of the Indian economy. Environmental concerns, the adoption of renewable energy, and green growth strategies are becoming increasingly important to ensure long-term economic sustainability. The integration of technology, including artificial intelligence, digital payments, and e-governance, is transforming economic processes and improving efficiency across all sectors. In conclusion, the Indian economy presents a dynamic landscape, presenting both growth opportunities and persistent challenges. Policy reforms and technological advancements have accelerated economic growth, yet there is an urgent need for inclusive and sustainable strategies to address socio-economic inequalities. Strengthening institutional frameworks, enhancing human capital, and fostering innovation will be essential to achieving long-term economic stability and global competitiveness.

Keywords: Indian economy, economic development, liberalization, inclusive growth, sustainability, digital economy

Assessment and Learning: A Critical Review of Contemporary Practices

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Abstract

Assessment is a fundamental component of the educational process and plays a crucial role in shaping students' learning experiences. Traditionally, assessment has been associated with grading and certification; however, contemporary educational research highlights its broader role in promoting learning, critical thinking, and academic development. This paper critically examines the relationship between assessment and learning in the context of higher education. Drawing upon constructivist learning theory and contemporary educational research, the paper explores how assessment practices influence students' engagement, motivation, and learning outcomes. The study discusses various types of assessment including formative, summative, and diagnostic assessment and evaluates their effectiveness in supporting meaningful learning. Particular emphasis is placed on Assessment for Learning (AfL), feedback mechanisms, and student-centered assessment strategies that encourage active participation and self-regulated learning. The paper also analyzes key challenges faced by higher education institutions in implementing effective assessment practices, such as large class sizes, lack of assessment literacy among teachers, and institutional focus on high-stakes examinations. Furthermore, the paper highlights the importance of constructive alignment, authentic assessment, and the integration of digital technologies in modern assessment practices. The findings suggest that when assessment is designed as a tool for learning rather than merely evaluation, it significantly enhances student engagement, autonomy, and academic success. The paper concludes by emphasizing the need for higher education institutions to adopt innovative and learner-centered assessment strategies that foster critical thinking, creativity, and lifelong learning skills.

Keywords: Assessment, Learning, Formative Assessment, Higher Education, Feedback, Student Engagement

DNA FINGER PRINTING

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Abstract

DNA fingerprinting, also known as DNA profiling, is a powerful molecular biology technique used to identify individuals based on unique patterns in their genetic material. Developed in 1984 by Alec Jeffreys, this method relies on analyzing specific regions of DNA that exhibit high variability among individuals, such as Short Tandem Repeats (STRs). DNA fingerprinting has revolutionized fields like forensic science, paternity testing, and biodiversity conservation by providing highly accurate and reliable identification. The process involves DNA extraction, amplification using Polymerase Chain Reaction (PCR), and separation of DNA fragments through gel electrophoresis or capillary electrophoresis. The resulting banding patterns are then compared to determine genetic similarities or differences. Due to its precision, DNA fingerprinting has become a cornerstone in criminal investigations, helping to both convict offenders and exonerate innocent individuals. Despite its advantages, ethical concerns regarding privacy and data security remain significant. Additionally, challenges such as sample contamination and degraded DNA can affect results. Ongoing advancements in genomic technologies continue to improve the efficiency, sensitivity, and applicability of DNA fingerprinting techniques.

Keywords: DNA Fingerprinting, DNA Profiling, Short Tandem Repeats (STRs), Polymerase Chain Reaction (PCR), Gel Electrophoresis, Forensic Science, Genetic Identification, Biotechnology

Unheard and Unadjusted: Exploring Adjustment Difficulties in Family Environment Among Married Men

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Abstract

The current research attempts to bridge the gap in literature by highlighting that very little empirical research has been conducted on the adjustment levels of married men in the family environment, especially in the Indian context. This relationship is vital to understand because the long-term consequences of unaddressed emotional distress on personal well-being, marital stability, and family functioning are critical.

Using 206 primary datasets collected from married men through a structured questionnaire, the study examines the relationship across the three dimensions of the family environment scale while considering adjustment levels. The findings reveal that married men tend to maintain fairly stable family functioning in terms of relationship quality, personal development, and system maintenance, despite variations in psychological and behavioural factors such as sleep, fatigue, loneliness, and procrastination.

Although no major disruptions appear to affect the core family structures and roles, some minor variations are observed. Poorer well-being—particularly feelings of fatigue—and behavioural tendencies such as delayed work are associated with slightly lower relationship satisfaction and perceptions of personal growth. Furthermore, increased control and highly organized family settings are not always linked to improved relationship outcomes; rigidity may coexist with emotional distance and may not necessarily enhance well-being.

Overall, the results indicate that although married men generally experience functional family systems, underlying and often unspoken adjustment-related challenges influence emotional involvement and personal growth within these relationships.

Keywords: Family, Environment, Married Men, India, Adjustment

बहुविषयक अनुसंधान सहयोग: नवाचार, ज्ञान एकीकरण एवं सतत विकास की दिशा में एक विश्लेषणात्मक अध्ययन

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सार

वर्तमान वैश्विक परिदृश्य में जटिल, बहुआयामी एवं गतिशील समस्याओं के समाधान के लिए बहुविषयक अनुसंधान सहयोग एक अत्यंत प्रभावी एवं आवश्यक दृष्टिकोण के रूप में उभर कर सामने आया है। पारंपरिक एकविषयक अनुसंधान की सीमाओं को पार करते हुए, बहुविषयक सहयोग विभिन्न विषयों के ज्ञान, सिद्धांतों, पद्धतियों एवं दृष्टिकोणों के समन्वय पर आधारित होता है, जिससे शोध की व्यापकता, गहनता एवं उपयोगिता में उल्लेखनीय वृद्धि होती है। प्रस्तुत अध्ययन में बहुविषयक अनुसंधान सहयोग की संकल्पना, प्रकृति, महत्व एवं समकालीन संदर्भ में उसकी प्रासंगिकता का विस्तृत विश्लेषण किया गया है।

अध्ययन के निष्कर्षों से यह स्पष्ट होता है कि बहुविषयक अनुसंधान सहयोग न केवल ज्ञान के विस्तार एवं एकीकरण में सहायक है, बल्कि यह नवाचार को बढ़ावा देने, अनुसंधान की गुणवत्ता को उन्नत करने तथा समाज की वास्तविक समस्याओं के समाधान में महत्वपूर्ण भूमिका निभाता है। साथ ही, यह सतत विकास लक्ष्यों की प्राप्ति में भी सहायक सिद्ध होता है। अतः यह आवश्यक है कि शैक्षणिक एवं अनुसंधान संस्थानों में बहुविषयक सहयोग को प्रोत्साहित करने हेतु उपयुक्त नीतियाँ, संसाधन एवं सहयोगात्मक वातावरण विकसित किया जाए, जिससे अनुसंधान के क्षेत्र में अधिक प्रभावी एवं परिणामोन्मुखी कार्य संपन्न हो सके।

मुख्य शब्द: बहुविषयक अनुसंधान, अनुसंधान सहयोग, अंतःविषयक दृष्टिकोण, नवाचार, ज्ञान एकीकरण, ज्ञान साझा करना, शैक्षणिक अनुसंधान, सतत विकास

Role of Heritage Tourism in the Cultural and Economic Growth of Jodhpur

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Abstract

The city of Jodhpur, popularly known as the “Blue City,” stands as a prominent example of heritage tourism contributing to both cultural preservation and economic development. With its magnificent forts, palaces, and vibrant traditions, Jodhpur has evolved into a major tourist destination in India. This research paper examines how heritage tourism functions as a catalyst for socio-cultural enrichment and economic growth. It highlights the role of historical monuments, local traditions, and community participation in sustaining cultural identity, while also analyzing tourism-driven employment, infrastructure development, and revenue generation. The paper further addresses challenges such as environmental pressure and commercialization, emphasizing the need for sustainable tourism strategies. The study concludes that heritage tourism, when managed effectively, can ensure balanced and inclusive development.

NAAC and NIRF Framework

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Abstract

NAAC (National Assessment and Accreditation Council) और NIRF(National Institutional Ranking Framework) भारत में उच्च शिक्षा के गुणवत्ता और प्रदर्शन को मापने के लिए दो महत्वपूर्ण संस्थान हैं। ये दोनों संस्थान शिक्षण संस्थानों के विकास, पारदर्शिता और उनके गुणवत्ता सुधार में महत्वपूर्ण भूमिका निभाते हैं। NAAC का मुख्य उद्देश्य महाविद्यालय और विश्वविद्यालय की कार्यात्मक गुणवत्ता का आकलन करना और उन्हें मान्यता प्रदान करना है। NAAC संस्थाओं को उनके शिक्षक कार्यो ,अनुसंधान कार्यो ,आधारभूत संरचनाओं ,छात्र समर्थन और प्रशासन के आधार पर ग्रेड देता है जैसे- A++,A,B+,B,Cआदि। NAAC की नजर मुख्यतः संस्थान की Overall quality और निरंतर सुधारों पर होती है। इन्हीं गुणवत्ता मानकों के आधार पर वह उस संस्थान को ग्रेड प्रदान करता है।

वहीं NIRF एक ranking system है जो विभिन्न मानदंडों जैसे शिक्षण -अधिगम, अनुसंधान, स्नातक उद्देश्य, सेवा विस्तार एवं पहुंच और धारणा के आधार पर संस्थानों को रैंक देता है। इसका उद्देश्य विद्यार्थियों को सही संस्थानों के चुनाव में मदद करना और संस्थाओं के बीच स्वस्थ प्रतिस्पर्धा को बढ़ावा देना है। यह दोनों framework मिलकर उच्च शिक्षा प्रणाली को अधिक जवाबदेही ,पारदर्शी और गुणवत्तापूर्ण बनाते हैं जहां NAAC गुणवत्ता का प्रमाण देता है वहीं NIRF प्रदर्शन के आधार पर संसाधनों की तुलना करता है । अतः NAAC और NIRF Framework भारतीय शिक्षा प्रणाली में सुधार एवं उत्कृष्टता को बढ़ावा देने के महत्वपूर्ण साधन हैं।

सुधा अरोड़ा का रचनाकर्म और स्त्री चेतना के स्वर

अर्चना कुमावत

शोधार्थी

ज्योति विद्यापीठ विमेंन यूनिवर्सिटी

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सार

यह शोध पत्र सुधा अरोड़ा के रचनात्मक लेखन में स्त्री चेतना के स्वर का विश्लेषण प्रस्तुत करता है। समकालीन हिंदी साहित्य में सुधा अरोड़ा एक प्रमुख स्त्रीवादी लेखिका के रूप में प्रतिष्ठित हैं। उनका संपूर्ण लेखन पितृसत्तात्मक व्यवस्था में स्त्री की अस्मिता की खोज, उसके संघर्ष, यौनिक हिंसा एवं दमन के विरुद्ध संवेदनशील अभिव्यक्ति को उजागर करता है। साथ ही, उनके लेखन में आर्थिक आत्मनिर्भरता, स्वअस्तित्व की तलाश-, विरोध की भावना तथा आत्मसम्मान के माध्यम से स्त्री मुक्ति के महत्व को स्पष्ट रूप से रेखांकित किया गया है।- औरत के ह' से लेकर 'रैतगाथा' उनके कथानकों में तक स्त्री की आवाज़ सशक्त रूप में उभरती है। 'सत्ता संघर्ष के माध्यम से उन्होंने स्त्री मानसिकता पर प्रकाश डालते हुए आर्थिक ' जैसी 'गुट जब बोलते हैं' तथा 'एक और तीन बटा चार' सत्ता के महत्व को रेखांकित किया है। कहानियों में स्त्री की दोहरी जिम्मेदारियाँ, उसकी मजबूरियाँ और शोषण का यथार्थ चित्रण मिलता है। इन रचनाओं में स्त्री, पुरुष प्रधान पितृसत्तात्मक समाज में अपनी पहचान और- अस्तित्व के लिए निरंतर संघर्ष करती दिखाई देती है।

'यहां वही है घरमें नायिका के विश्वास में परिवर्तन दिखाया गया है', जहाँ वह समाज के दिखावे के पीछे छिपी वास्तविकता को अपनी दृष्टि से समझाती है। वहीं में 'जैनी की दुनिया' स्त्री आत्मनिर्भरता और उज्ज्वल संभावनाओं का संकेत मिलता है। 'सत्ते और सावन', 'एक और तीन बटा चारमें घर से कार्यक्षेत्र तक स्त्री के संघर्ष को एक ही परिप्रेक्ष्य 'विरोध' तथा 'य में प्रस्तुत किया गया है, जबकि मैं स्त्री के सामाजिक इतिहास 'यशोदा का समाज', सशक्तिकरण, अधिकारों की रक्षा और महिलामुक्ति योजनाओं की ओर संकेत किया गया है।-

इन कहानियों के माध्यम से स्पष्ट होता है कि सुधा अरोड़ा का महिला लेखन समाज का एक महत्वपूर्ण दस्तावेज़ है, जो पितृसत्तात्मक मानसिकता को उजागर करते हुए स्त्री को वैचारिक, सामाजिक और आर्थिक रूप से सशक्त बनाने का कार्य करता है। साथ ही, यह पुरुष मानसिकता की संरचना को भी समाज की पुनर्व्याख्या के संदर्भ में प्रस्तुत करता है।

इस शोध का उद्देश्य केवल स्त्री की अस्मिता की खोज तक सीमित नहीं है, बल्कि एक लैंगिक निष्पक्ष और समानतापूर्ण सामाजिक वातावरण की आवश्यकता को भी रेखांकित करना है।

“बौद्धिक संपदा अधिकार (IPR) और नवाचार पारिस्थितिकी तंत्र”

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सार

वर्तमान समय में ज्ञान-आधारित अर्थव्यवस्था के विकास में बौद्धिक संपदा अधिकार (IPR) की महत्वपूर्ण भूमिका है। इस क्षेत्र में नवाचार, अनुसंधान और रचनात्मकता को प्रोत्साहित करने का यह एक सशक्त माध्यम है, जो आविष्कारकों और रचनाकारों को उनके कार्य के लिए कानूनी संरक्षण प्रदान करता है।

बौद्धिक संपदा अधिकार (IPR) और नवाचार पारिस्थितिकी तंत्र के बीच संबंधों का विश्लेषण करते हुए यह अध्ययन दर्शाता है कि किस प्रकार एक सुदृढ़ IPR प्रणाली नवाचार को बढ़ावा देती है, निवेश को आकर्षित करती है तथा आर्थिक विकास में योगदान देती है। इसके साथ ही, इसके समक्ष आने वाली चुनौतियों और उनके समाधान पर भी विचार किया गया है।

IPR नवाचार, रचनात्मकता और आर्थिक विकास को प्रोत्साहित करता है। पेटेंट, ट्रेडमार्क और औद्योगिक डिज़ाइन के क्षेत्र में उल्लेखनीय वृद्धि के साथ भारत वैश्विक नवाचार का केंद्र बनकर उभर रहा है। IPR स्टार्टअप्स को अपने उत्पादों को अलग पहचान देने, ब्रांड बनाने और निवेश आकर्षित करने में सहायता करता है। प्रभावी IPR नीतियाँ न केवल नवाचार को बढ़ावा देती हैं, बल्कि तकनीकी प्रगति के लिए एक सहयोगात्मक पारिस्थितिकी तंत्र भी निर्मित करती हैं। एक सुदृढ़ IPR तंत्र यह सुनिश्चित करके सहयोग को प्रोत्साहित करता है कि प्रत्येक प्रतिभागी की बौद्धिक संपदा सुरक्षित है। सरकार विधिक ढांचा प्रदान कर तथा बौद्धिक संपदा अधिकारों की रक्षा करने वाले कानून बनाकर महत्वपूर्ण भूमिका निभाती है। इससे व्यवसायों को घरेलू एवं अंतरराष्ट्रीय बाजारों में प्रतिस्पर्धात्मकता बढ़ाने के साथ-साथ अपनी बौद्धिक संपदा के विकास एवं संरक्षण हेतु प्रोत्साहन मिलता है, जिससे आर्थिक उन्नति होती है।

मुख्य शब्द (Keywords): अनुसंधान, पेटेंट, ट्रेडमार्क, बौद्धिक संपदा अधिकार, स्टार्टअप, नवाचार

PSYCHOLOGICAL WELL-BEING AMONG THE PARENTS OF DEVELOPMENTALLY DISABLED CHILDREN AND TYPICALLY DEVELOPING CHILDREN

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Abstract

The present study examines the psychological well-being of parents of typically developing children and parents of children with developmental disabilities. A descriptive survey method was adopted for the study. The sample consisted of 100 parents, including 49 parents of typically developing children and 51 parents of children with developmental disabilities. Psychological well-being was assessed across dimensions such as satisfaction, efficiency, sociability, mental health, and interpersonal relations using a standardized scale. The data were analyzed using mean, standard deviation, and independent samples t-test. The findings revealed that parents of typically developing children scored higher on most dimensions of psychological well-being. Significant differences were observed in efficiency, sociability, mental health, and interpersonal relations, whereas no significant difference was found in the dimension of satisfaction. The results indicate that parents of children with developmental disabilities experience comparatively lower psychological well-being. The study highlights the need for psychological support and intervention programs for parents. It also emphasizes the role of educational institutions in promoting parental well-being. Overall, the study contributes to understanding the mental health needs of parents in special and inclusive settings.

Keywords: Psychological Well-being, Developmentally Disabled Children, Typically Developing Children

घनानंद के काव्य में प्रेम तत्त्व और स्वच्छंदता: एक आलोचनात्मक अध्ययन

दीपिका पंवार

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सारांश

रीतिकालीन हिंदी साहित्य में घनानंद का स्थान अत्यंत महत्वपूर्ण और विशिष्ट माना जाता है। उन्होंने अपने काव्य में प्रेम, विरह, संवेदना और स्वच्छंदता के भावों को अत्यंत मार्मिक और प्रभावशाली ढंग से अभिव्यक्त किया है। रीतिकाल सामान्यतः श्रृंगार और अलंकार प्रधान काव्य के लिए जाना जाता है, किंतु घनानंद का काव्य इस परंपरा से भिन्न होकर व्यक्तिगत अनुभूति, आत्मीय प्रेम और स्वच्छंद भावनाओं का सशक्त चित्रण प्रस्तुत करता है। उनके काव्य में प्रेम केवल बाह्य सौंदर्य या नायिका वर्णन तक सीमित नहीं है, बल्कि यह हृदय की गहन अनुभूति, आत्मीय संबंध और मानवीय संवेदनाओं का प्रतीक बन जाता है।

घनानंद के काव्य में प्रेम तत्त्व अत्यंत प्रमुख है। उनका प्रेम आध्यात्मिक, आत्मीय और स्वाभाविक है, जिसमें कृत्रिमता या बनावट का अभाव दिखाई देता है। उनके काव्य में प्रिय के प्रति गहरी अनुरक्ति, विरह की पीड़ा, मिलन की आकांक्षा और आत्मसमर्पण की भावना स्पष्ट रूप से दिखाई देती है। यह प्रेम केवल लौकिक नहीं, बल्कि अलौकिक और भावनात्मक स्तर पर भी व्यक्त होता है। इसी कारण घनानंद का काव्य रीतिकालीन परंपरा से अलग होकर अधिक मानवीय और संवेदनशील बन जाता है। स्वच्छंदता का भाव भी घनानंद के काव्य की महत्वपूर्ण विशेषता है। उन्होंने परंपरागत नियमों और बंधनों से हटकर अपनी भावनाओं को स्वतंत्र रूप से अभिव्यक्त किया है। उनके काव्य में व्यक्तिगत अनुभूति और स्वतंत्र अभिव्यक्ति का प्रभाव स्पष्ट दिखाई देता है, जो उन्हें अन्य रीतिकालीन कवियों से अलग पहचान प्रदान करता है। स्वच्छंदता के कारण उनके काव्य में भावों की सहजता, भाषा की सरलता और अभिव्यक्ति की स्वाभाविकता देखने को मिलती है।

प्रस्तुत शोधपत्र का उद्देश्य घनानंद के काव्य में प्रेम तत्त्व और स्वच्छंदता के स्वरूप का आलोचनात्मक अध्ययन करना है। इसके अंतर्गत उनके काव्य में प्रेम की प्रकृति, स्वच्छंद भावधारा, रीतिकालीन परंपरा से भिन्नता और काव्यगत विशेषताओं का विश्लेषण किया गया है। यह अध्ययन साहित्यिक, आलोचनात्मक और विश्लेषणात्मक पद्धति पर आधारित है।

अंततः यह निष्कर्ष निकलता है कि घनानंद का काव्य हिंदी साहित्य में प्रेम और स्वच्छंदता की सशक्त अभिव्यक्ति का उदाहरण है, जो रीतिकालीन काव्य परंपरा में एक नई दिशा प्रदान करता है।

कुंजी शब्द - घनानंद, रीतिकाल, प्रेम तत्त्व, स्वच्छंदता, श्रृंगार रस, हिंदी काव्य, विरह, भाव अभिव्यक्ति

A sociological study of rape offenders behavioral and social factors behind the crime

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ABSTRACT

Rape is one of the most serious crimes and a major violation of human rights. It reflects deep-rooted gender inequality in society. While many studies focus on victims, less attention is given to understanding the behaviour and background of offenders. This study examines the behavioural and social factors that lead individuals to commit rape.

The research is based on secondary data such as NCRB reports, research articles, and case studies. The study finds that rape is not mainly driven by sexual desire but by power, control, and dominance. Factors such as patriarchy, peer influence, exposure to violence, lack of education, and social conditioning play an important role.

The study concludes that rape is a social problem and requires social change, awareness, and education for prevention.

Environmental Fluctuation

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Abstract

Environmental fluctuation refers to the temporal and spatial variations in environmental conditions such as temperature, precipitation, humidity, and resource availability. These fluctuations can arise from natural processes as well as anthropogenic activities, and they play a crucial role in shaping ecosystem structure, species distribution, and biodiversity. In recent decades, the magnitude and frequency of environmental fluctuations have intensified due to climate change, leading to increased ecological instability and uncertainty. This paper examines the causes, patterns, and impacts of environmental fluctuations on ecological systems and human societies. It highlights how organisms respond through adaptation, migration, or extinction, and how ecosystems exhibit resilience or vulnerability under changing conditions. Furthermore, the study explores the implications of environmental variability for agriculture, water resources, and conservation strategies. By synthesizing current research, this work emphasizes the importance of predictive modeling and sustainable management practices to mitigate adverse effects and enhance adaptive capacity. Understanding environmental fluctuations is essential for developing informed policies and ensuring long-term ecological balance and human well-being.

Keywords: Environmental fluctuation, Climate variability, Ecosystem resilience, Biodiversity.

जलवायु संघवाद एक बहुःस्तरीय शासन ढांचे के रूप में-

अंतर सरकारी जलवायु-राजनीति का विश्लेषण

मीनाक्षी शर्मा

सहायक आचार्यराजनितिक विज्ञान ,

मेहता कॉलेज एंड इंस्टिट्यूट ऑफ़ टेक्नोलॉजी

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सार

जलवायु परिवर्तन समकालीन विश्व राजनीति की सबसे जटिल और बहुआयामी चुनौतियों में से एक है। इसका प्रभाव केवल पर्यावरण तक सीमित न रहकर आर्थिक, सामाजिक और राजनीतिक संरचनाओं को भी प्रभावित करता है। यह समस्या अंतरराष्ट्रीय समझौतों के साथ-राष्ट्रीय स्तरों पर नीति हस्तक्षेप की मांग करती है। इसी संदर्भ में-साथ राष्ट्रीय और उप व्यावहारिक ढांचे के रूप में उभरते हैं।

यह शोध स्तरीय शासन व्यवस्था के रूप में विश्लेषित करता-पत्र जलवायु संघवाद को एक बहु- है, जिसमें केंद्र, राज्य और स्थानीय सरकारें जलवायु नीति निर्माण, कार्यान्वयन और उत्तरदायित्व को साझा करती हैं। अध्ययन यह तर्क प्रस्तुत करता है कि जलवायु संघवाद केवल प्रशासनिक समन्वय तक सीमित नहीं है, बल्कि यह शक्तिसंतुलन-, संसाधन वितरण और राजनीतिक प्राथमिकताओं से गहराई से जुड़ी प्रक्रिया है। शोध में अंतर सरकारी जलवायु राजनीति की-संरचना, सहयोगसंघर्ष की प्रकृति तथा नीति परिणामों पर इसक-े प्रभावों का समालोचनात्मक विश्लेषण किया गया है।

Effects of Urban Expansion and Habitat Modification on Avian Diversity in Harmara, Jaipur, India

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Abstract

Urban expansion substantially alters habitat structure and resource distribution, driving changes in avian diversity and community composition. We implemented a comparative field study (simulated dataset) examining bird communities across an urbanization gradient in Harmara, Jaipur: urban core (U), suburban matrix (S), and peri-urban rural fringe (R). Standardized point counts ($n = 80$ points; 20 per zone) and habitat surveys were conducted across three seasons (pre-monsoon, monsoon, post-monsoon). Simulated results show declines in species richness and Shannon diversity from $R \rightarrow S \rightarrow U$ (mean species per point: $R = 18.2 \pm 3.2$, $S = 11.9 \pm 2.5$, $U = 7.8 \pm 2.0$; *simulated*). Functional-group analyses indicate loss of insectivores and forest specialists in urban zones with concurrent increases in omnivorous and human-commensal species (e.g., *Acridotheres tristis*, *Columba livia*). Habitat predictors (tree cover, canopy complexity, green patch size) explained 65% of variation in species richness in a simulated generalized linear model (GLM). We discuss mechanisms (habitat loss, fragmentation, resource supplementation, noise/light pollution) and management implications for urban biodiversity in semi-arid Indian landscapes. All empirical numbers are simulated and intended for manuscript-format demonstration only.

Keywords: Urban Expansion, Avian Diversity, Habitat Modification, Species Richness, Community Composition

A STUDY OF ATTITUDE TOWARDS ARTIFICIAL INTELLIGENCE AND MENTAL HEALTH AMONG COLLEGE STUDENTS

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ABSTRAC

Today, AI is an integral part of modern society, influencing our daily lives through various applications, such as smart phones, virtual assistants, and advanced algorithms that manage social media and healthcare systems. While the rapid advancement of AI offers numerous benefits, it also raises important questions about its impact on human psychology and social relationships. This study aims to explore attitudes towards artificial intelligence (AI) and mental health, seeking to uncover patterns that contribute to a deeper understanding of individuals' reactions to AI. It was also examine how gender differences in mental health among college students. The study involved 200 college students and utilized a two-group design to investigate the differences in mental health between students with positive and negative attitudes towards AI. A t-test was applied to analyze the data. The results indicate a significant difference in the mean mental health scores between college students with positive and negative attitudes towards artificial intelligence and also found out a significant gender difference on mental health of college students. The review concludes with a summary of the major research findings, along with considerations for future directions and implications for practice and policy.

Keywords: Mental health, Attitudes towards Artificial Intelligence and College Students etc.

ROLE OF DIGITAL PAYMENT SYSTEMS IN ENHANCING FINANCIAL INCLUSION IN INDIA

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ABSTRACT

Digital payment systems have emerged as a powerful catalyst for financial inclusion in India, transforming access to formal financial services across diverse socio-economic groups. The widespread adoption of digital payment platforms such as Unified Payments Interface (UPI), mobile wallets, internet banking, and Aadhaar-enabled payment systems has significantly reduced transaction costs, increased accessibility, and promoted transparency in financial transactions. This research paper examines the role of digital payment systems in enhancing financial inclusion in India from a commerce and business administration perspective. Using a qualitative review-based methodology, the study synthesizes evidence from academic literature, policy documents, and reports published by national and international institutions. The findings reveal that digital payments have facilitated inclusion of unbanked populations, strengthened small business participation, and supported government-led financial initiatives. However, challenges such as digital literacy gaps, cybersecurity risks, and infrastructure limitations continue to affect inclusive outcomes. The paper concludes with policy and managerial recommendations to strengthen the digital payment ecosystem and ensure sustainable financial inclusion.

Keywords: Digital payment systems, financial inclusion, UPI, Commerce, Digital finance, India

Jaipur: The Future Conurbation A Spatial and Temporal Analysis of Urban Expansion

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Abstract

Jaipur, historically a planned and fortified city, has undergone rapid spatial transformation in recent decades, evolving into a sprawling metropolitan region. This paper examines the city's expansion beyond its traditional core (Capital town) into emerging suburban and satellite towns. By applying Griffith Taylor's stages of urban development and the push-pull theory of migration, the study identifies Jaipur's transition into a mature urban phase characterized by decentralized growth, rising population density, and uneven infrastructural development. Suburban regions such as Mansarovar, Jagatpura, and Vaishali Nagar now serve as critical residential and economic nodes, reflecting patterns of conurbation. The research highlights the urgent need for sustainable and decentralized urban planning to manage Jaipur's spatial growth, mitigate environmental pressures, and ensure balanced regional development.

Keywords: Conurbation, Jaipur Urban Growth, Sustainable Urban Planning

Role of National Education Policy 2020 in Promoting Gender Equality

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Abstract

The represents a transformative framework aimed at making the Indian education system more inclusive, equitable, and accessible. One of its key priorities is the promotion of gender equality by addressing long-standing disparities in access, participation, and learning outcomes among different genders. The policy introduces several measures such as the establishment of the Gender Inclusion Fund, emphasis on universal access to education, and targeted interventions for disadvantaged groups, including girls and transgender learners. It also promotes gender-sensitive curricula, teacher training, and safe school environments to eliminate stereotypes and discrimination. Furthermore, the policy recognizes the importance of community participation, digital inclusion, and flexible learning pathways to ensure that no learner is left behind. By integrating principles of equity and inclusion at all levels of education, the policy aims to empower individuals and foster social justice. This paper analyzes how NEP 2020 contributes to reducing gender gaps and promoting an inclusive educational ecosystem in India, while also highlighting challenges in its implementation.

Keywords: Gender Equality, Social Inclusion, National Education Policy 2020, Gender Inclusion Fund, Inclusive Education

कला, विज्ञान और वाणिज्य का समन्वय आधुनिक शिक्षा की :

अनिवार्यता

प्रीती शर्मा

शोधार्थी

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सार

वर्तमान समय में प्रौद्योगिकी और वैश्वीकरण के कारण शिक्षा प्रणाली में महत्वपूर्ण परिवर्तन देखने को मिल रहे हैं। पहले शिक्षा का स्वरूप ऐसा था जिसमें कला, विज्ञान और वाणिज्य विषयों को अलग अलग धाराओं में बांटकर पढ़ाया जाता था। इस कारण विद्यार्थी का ज्ञान-सीमित रह जाता था और वे केवल एक क्षेत्र में ही विशेषज्ञता प्राप्त कर पाते थे। किन्तु हो गया है कि शिक्षा बहु विषयक हो तथा विभिन्न विषयों का समन्वय स्थापित किया जाए। यही कारण है कि आधुनिक शिक्षा प्रणाली में कला, विज्ञान और वाणिज्य के एकीकृत अध्ययन पर बल दिया जा रहा है।

राष्ट्रीय शिक्षा नीति 2020 (NEP 2020) ने बहुविषयक शिक्षा को बढ़ावा दिया है। इसमें विद्यार्थियों को विभिन्न विषयों के बीच चयन करने और अपने रुचि के अनुसार विषयों का अध्ययन करने की स्वतंत्रता दी गई है। इस नीति के अनुसार, शिक्षा केवल सैद्धांतिक ज्ञान तक सीमित नहीं होनी चाहिए, बल्कि इसमें व्यावहारिक अनुभव, परियोजनाआध-ारित शिक्षण और कौशल विकास को भी शामिल किया जाना चाहिए।

इस प्रकार, यह स्पष्ट है कि कला, विज्ञान और वाणिज्य का समन्वय आधुनिक शिक्षा की अनिवार्यता बन चुका है। यह न केवल विद्यार्थियों के समग्र विकास में सहायक है, बल्कि उन्हें भविष्य की चुनौतियों का सामना करने के लिए भी तैयार करता है। अतः शिक्षा प्रणाली में इन तीनों क्षेत्रों के एकीकृत अध्ययन को बढ़ावा देना आवश्यक है।

**18वीं-19वीं शताब्दी के परिप्रेक्ष्य में भारतीय समाज में लैंगिक
समानता एवं सामाजिक समावेशन: हाशिये पर स्थित समुदायों एवं
महिलाओं की स्थिति का ऐतिहासिक विश्लेषण**

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सार

यह शोधपत्र 18वीं एवं 19वीं शताब्दी के परिप्रेक्ष्य में भारतीय समाज में लैंगिक समानता एवं सामाजिक समावेशन की ऐतिहासिक प्रक्रिया का आलोचनात्मक विश्लेषण प्रस्तुत करता है। इस कालखंड में भारतीय समाज पारंपरिक पितृसत्तात्मक संरचनाओं, कठोर जाति व्यवस्था एवं सामाजिक रूढ़ियों से संचालित था, जिसके परिणामस्वरूप महिलाओं एवं हाशिये पर स्थित समुदायों की स्थिति अत्यंत सीमित एवं वंचित रही।

हालाँकि, इसी अवधि में सामाजिक सुधार आंदोलनों का उदय हुआ, जिसने परिवर्तन की प्रक्रिया को गति प्रदान की। राजा राममोहन राय द्वारा सती प्रथा के उन्मूलन के प्रयास, ईश्वरचंद्र विद्यासागर द्वारा विधवा पुनर्विवाह के समर्थन तथा ज्योतिराव फुले एवं सावित्रीबाई फुले द्वारा स्त्री शिक्षा एवं दलित उत्थान के प्रयासों ने सामाजिक समावेशन की दिशा में महत्वपूर्ण योगदान दिया। इन सुधारवादी प्रयासों ने महिलाओं एवं वंचित वर्गों के लिए शिक्षा, अधिकार एवं सामाजिक भागीदारी के नए अवसर उत्पन्न किए।

तथापि, यह अध्ययन दर्शाता है कि इन परिवर्तनों के बावजूद सामाजिक असमानता एवं लैंगिक भेदभाव पूर्णतः समाप्त नहीं हो सके। अतः निष्कर्षतः यह कहा जा सकता है कि 18वीं-19वीं शताब्दी के सुधार आंदोलनों ने आधुनिक भारत में समानता एवं समावेशन की आधारशिला रखी, जो आज भी सामाजिक नीतियों एवं विमर्शों का आधार बनी हुई है।

मुख्य शब्द (Keywords): लैंगिक समानता, सामाजिक समावेशन, 18वीं शताब्दी, 19वीं शताब्दी, भारतीय समाज, समाज सुधार आंदोलन, महिला सशक्तिकरण, हाशिये के समुदाय

Natural vegetation and their effects

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Abstract

Natural vegetation plays a vital role in maintaining ecological balance, supporting biodiversity, and protecting soil and water resources. It consists of plant communities that grow naturally without human intervention and adapt to climatic and geographical conditions. However, natural vegetation faces increasing threats from deforestation, urbanization, climate change, and human exploitation. Plant protection is therefore essential to conserve these ecosystems and ensure sustainable development. It involves methods such as biological control, conservation practices, afforestation, and the use of eco-friendly technologies to prevent damage from pests, diseases, and environmental stress. Effective plant protection strategies not only safeguard natural vegetation but also enhance ecosystem resilience, maintain biodiversity, and support livelihoods. Sustainable management and conservation efforts are crucial to preserving natural vegetation for future generations.

Keywords: Natural Vegetation, Plant Protection, Biodiversity, Conservation, Ecosystem Balance, Afforestation, Sustainable Development, Biological Control, Environmental Protection, Climate Change

Medicinal plant and their uses

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Abstract

Medicinal plants have been an integral component of traditional healthcare systems since ancient times, playing a vital role in the prevention and treatment of various diseases. These plants are rich in bioactive compounds such as alkaloids, flavonoids, tannins, and terpenoids, which possess significant therapeutic properties including antimicrobial, anti-inflammatory, antioxidant, and anticancer activities. In recent years, there has been a growing global interest in plant-based medicines due to their perceived safety, affordability, and minimal side effects compared to synthetic drugs. Common medicinal plants such as neem, tulsi, aloe vera, and turmeric are widely used for treating ailments ranging from skin disorders and digestive issues to respiratory and immune-related conditions. This paper highlights the importance of medicinal plants, their pharmacological uses, and their contribution to modern drug discovery. Furthermore, it emphasizes the need for conservation, sustainable utilization, and scientific validation of traditional knowledge to ensure their continued benefits for future generations.

Keywords: Medicinal plants, Phytochemicals, Traditional medicine, Herbal therapy, Bioactive compounds, Anti microbial activity, Antioxidants, Drug discovery, Ethnobotany, Sustainable utilization.

AI and the Human Mind: A Cognitive Psychology Approach to Teaching–Learning Enhancement

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Abstract

The rapid integration of artificial intelligence (AI) into educational settings has transformed traditional teaching–learning processes, necessitating a deeper understanding of its psychological implications. This study examines the relationship between AI-driven educational tools and key cognitive processes, including attention, memory, perception, and problem-solving. Drawing on principles of cognitive psychology, the research explores how AI-based systems such as adaptive learning platforms and intelligent tutoring systems influence learner engagement, information processing, and knowledge retention. A correlational research design is employed to analyze the extent to which AI usage enhances or hinders cognitive functioning among students. The findings suggest that AI can significantly support personalized learning experiences, optimize cognitive load, and improve academic performance when aligned with psychological principles. However, concerns related to over-reliance on technology, reduced critical thinking, and cognitive dependency are also identified. The study highlights the importance of integrating AI in a manner that complements human cognition rather than replacing it. Implications for educators, curriculum designers, and policymakers are discussed, emphasizing the need for a balanced, psychologically informed approach to AI integration in education.

Keywords: Artificial Intelligence, Cognitive Psychology, Teaching–Learning Process, Student Engagement, Adaptive Learning Systems

DNA Model

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Abstract

Deoxyribonucleic Acid (DNA) is the fundamental hereditary material present in almost all living organisms, carrying the genetic instructions essential for growth, development, and reproduction. The structure of DNA was first described by James Watson and Francis Crick in 1953, revealing the iconic double helix model. This model consists of two complementary strands twisted around each other, composed of nucleotides containing a phosphate group, deoxyribose sugar, and nitrogenous bases. The four nitrogenous bases—adenine (A), thymine (T), cytosine (C), and guanine (G)—pair specifically (A with T, and C with G) through hydrogen bonding, ensuring accurate replication of genetic information. The DNA model explains key biological processes such as replication, transcription, and protein synthesis, which are essential for cellular function and inheritance. Modern advancements in molecular biology and biotechnology have expanded our understanding of DNA, enabling applications in genetic engineering, forensic science, and medical diagnostics. The DNA model remains a cornerstone in the field of Molecular Biology, providing insights into the complexity and diversity of life.

Keywords: DNA Structure, Double Helix, Nucleotides, Base Pairing, Genetic Information, Replication, Molecular Biology, Genetic Engineering.

Impact of AI Code Assistants on Learning Programming: A Systematic Review, Extended Synthesis, and Pre-registered Empirical Protocol

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Abstract

Generative AI code assistants (AICAs) such as GitHub Copilot and ChatGPT-based code tools are being rapidly adopted by professional developers and learners alike. While industry reports and early experimental studies highlight productivity gains, the effects on durable learning outcomes for novice programmers — conceptual understanding, debugging skill, and transfer — remain uncertain. This article provides an extended systematic review of empirical work (2020–mid-2025), synthesizes key findings and theoretical perspectives, and presents a pre-registered, multi-site randomized controlled trial (RCT) protocol designed to measure short- and long-term learning impacts, metacognitive shifts, and equity effects. Our literature synthesis shows consistent evidence of task-level efficiency improvements (faster completion, more code produced) but mixed or ambiguous evidence on conceptual learning and transfer, alongside substantive risks including over-reliance, hallucinated/insecure suggestions, and academic integrity concerns. We build on robust human–AI interaction theory and educational psychology to propose intervention scaffolds — forced explanation, critical-review checklists, and prompt-engineering instruction — that aim to convert AI assistance into deeper learning. We describe instrumentation (IDE telemetry, keystroke logging), outcome measures (conceptual tests, transfer tasks, debugging indices), sample-size calculations, and statistical analysis plans, and we discuss ethical safeguards, privacy protections, and reproducibility artifacts. The paper concludes with practical recommendations for educators and a research agenda to produce evidence-based policies around AICA use in programming education. [The GitHub Blog+2ACM Digital Library+2](#)

Keywords: AI code assistants, GitHub Copilot, ChatGPT, programming education, novice learning, human–AI interaction, empirical protocol

Artificial Intelligence as a Tool for Personalized and Adaptive Learning

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Abstract

Artificial intelligence (AI) is rapidly transforming teaching and learning processes across educational settings. By integrating intelligent systems into classrooms, AI enables personalized, adaptive, and data-driven learning experiences. One of the key contributions of AI is its ability to analyze student performance in real time, allowing educators to tailor instruction based on individual needs, learning pace, and strengths. This personalized approach enhances student engagement and improves learning outcomes. AI-powered tools such as virtual tutors, chatbots, and automated assessment systems also reduce the administrative burden on teachers, enabling them to focus more on student interaction and mentorship. Furthermore, AI supports inclusive education by providing access to quality learning resources through digital platforms, particularly benefiting students in remote or under-resourced areas. In addition, AI assists educators in curriculum planning, content development, and predictive analysis to identify learning gaps at an early stage. It promotes innovative teaching strategies such as flipped classrooms and interactive simulations, encouraging critical thinking and problem-solving abilities among learners. Despite its advantages, the adoption of AI in education raises concerns related to data privacy, ethical considerations, and the potential decline in human interaction. Therefore, it is essential to implement AI in a balanced manner, ensuring it complements rather than replaces educators. In conclusion, AI holds significant potential to improve the quality, accessibility, and efficiency of education. Its thoughtful integration can foster a dynamic and inclusive learning environment suited for the evolving demands of the digital era.

Keywords: Educational Technology, Adaptive Learning, Digital Education, AI in Education, Smart Classrooms

Plant Tissue Culture

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Abstract

Plant tissue culture is a vital technique in modern Biotechnology that involves the in vitro cultivation of plant cells, tissues, or organs under sterile and controlled environmental conditions. This method is based on the principle of Totipotency, which allows a single plant cell to regenerate into a complete plant. Tissue culture techniques are widely used for rapid plant propagation, production of disease-free plants, conservation of rare and endangered species, and genetic modification. The process typically requires a nutrient medium containing essential minerals, vitamins, plant growth regulators, and a carbon source. Various techniques such as micropropagation, callus culture, and somatic embryogenesis are employed depending on the desired outcome. Plant tissue culture plays a significant role in agriculture, horticulture, and pharmaceutical industries by enhancing crop yield, quality, and resistance to pests and diseases. Despite its advantages, challenges such as contamination, high cost, and technical expertise requirements still exist.

Keywords: Plant tissue culture, in vitro cultivation, Totipotency, micropropagation, callus culture, somatic embryogenesis, plant growth regulators, disease-free plants, genetic modification, Biotechnology.

Green Technology

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Abstract

Green technology, also known as environmental technology, refers to the development and application of products, equipment, and systems that conserve natural resources and minimize negative environmental impacts. It is closely associated with sustainable development and aims to address global challenges such as climate change, resource depletion, and pollution. Green technology encompasses a wide range of innovations, including renewable energy systems, energy-efficient devices, waste management techniques, and eco-friendly materials. The adoption of green technologies such as Solar Energy, Wind Energy, and Biodegradation has significantly contributed to reducing greenhouse gas emissions and promoting environmental sustainability. In addition, advancements in green chemistry, water purification, and sustainable agriculture have further enhanced ecological balance and human well-being. Despite these benefits, challenges such as high initial costs, lack of awareness, and technological limitations hinder widespread adoption. Overall, green technology plays a crucial role in achieving a sustainable future by integrating environmental protection with economic growth and social development.

Keywords: Green technology, sustainability, renewable energy, Solar Energy, Wind Energy, eco-friendly systems, waste management, Biodegradation, environmental protection, green chemistry

Algae: Structure and Habitat

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Abstract

Algae are a diverse group of photosynthetic organisms that play a crucial role in aquatic ecosystems and global biogeochemical cycles. They range from simple unicellular forms to complex multicellular seaweeds, exhibiting a wide variety of structural organizations. The basic structure of algae typically includes a thallus body that lacks true roots, stems, and leaves, but may show differentiation in advanced forms. Cellular organization varies from prokaryotic (in cyanobacteria, often referred to as blue-green algae) to eukaryotic forms with membrane-bound organelles and chloroplasts containing pigments such as chlorophyll, carotenoids, and phycobilins. Algal cell walls are commonly composed of cellulose, though variations such as silica in diatoms and alginates in brown algae exist. Algae inhabit a broad range of environments, predominantly aquatic ecosystems including freshwater, marine, and brackish habitats. They are also found in terrestrial habitats such as moist soils, rocks, and tree trunks, and can form symbiotic relationships, as seen in lichens. Environmental factors such as light intensity, temperature, nutrient availability, and water chemistry significantly influence their distribution and growth. Algae contribute substantially to primary productivity, oxygen production, and serve as the base of many food webs. Understanding algal structure and habitat is essential for ecological studies, environmental monitoring, and biotechnological applications such as biofuel production and wastewater treatment.

Keywords: Algae, thallus, photosynthesis, aquatic ecosystems, chloroplast, pigments, habitat diversity, primary productivity, cyanobacteria, seaweeds.

A Comparative and Integrative Analysis of NAAC and NIRF Frameworks for Quality Enhancement in Indian Higher Education

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Abstract

The rapid expansion of higher education in India has necessitated the establishment of robust quality assurance and performance evaluation mechanisms. Two prominent frameworks—the National Assessment and Accreditation Council (NAAC) and the National Institutional Ranking Framework (NIRF)—have significantly influenced institutional governance, academic quality, and global competitiveness. This study presents a comprehensive comparative and integrative analysis of these frameworks using recent policy documents, academic literature, and empirical reports.

NAAC emphasizes accreditation through qualitative and quantitative indicators, focusing on institutional processes such as teaching-learning, governance, and best practices. In contrast, NIRF adopts a data-driven ranking approach based on measurable outcomes including research productivity, graduation outcomes, and inclusivity. The increasing participation of institutions—from 3,563 in 2016 to over 5,500 in 2023—reflects the growing importance of ranking systems in India .

The study identifies key complementarities between NAAC and NIRF, while also highlighting challenges such as data reliability, duplication of reporting, and overemphasis on quantitative metrics. Recent reforms in NAAC toward data-driven accreditation further indicate convergence with ranking methodologies .

The paper proposes an integrated hybrid framework that aligns qualitative assessment with quantitative benchmarking, supported by digital data systems and policy harmonization. The findings suggest that combining accreditation and ranking mechanisms can enhance institutional accountability, improve research output, and strengthen global positioning.

This research contributes to the existing literature by addressing the gap in integrated evaluation models and provides policy recommendations for sustainable quality enhancement in Indian higher education.

Keywords: NAAC, NIRF, Higher Education, Accreditation, Ranking, Quality Assurance, India

बहुविषयक और समग्र शिक्षा मॉडल

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सारांश

बहुविषयक और समग्र शिक्षा मॉडल, राष्ट्रीय शिक्षा नीति (NEP 2020) की आधारशिला है, जिसका उद्देश्य रटने की विधि को समाप्त कर शिक्षार्थियों का समग्र विकास करना है। यह मॉडल शिक्षा को पूर्व-प्राथमिक से लेकर 12वीं कक्षा तक एक एकीकृत रूप में देखता है।

यह मॉडल विज्ञान, कला, मानविकी, खेल और व्यावसायिक विषयों के बीच की सख्त सीमाओं को समाप्त करता है। यह अनुभवात्मक अधिगम, आलोचनात्मक सोच और समस्या-समाधान कौशल पर केंद्रित है। इसका मुख्य उद्देश्य पारंपरिक ज्ञान के साथ आधुनिक कौशलों (जैसे कोडिंग, AI) को जोड़कर एक आत्मनिर्भर और समावेशी शिक्षा प्रणाली बनाना है।

एकीकृत पाठ्यक्रम: विषयों को अलग-अलग पढ़ाने के बजाय उन्हें आपस में जोड़कर पढ़ाया जाए।

सर्वांगीण विकास: संज्ञानात्मक विकास के साथ-साथ शारीरिक, सामाजिक, भावात्मक और नैतिक क्षमताओं का विकास करना।

अनुभवात्मक अधिगम: रटने के बजाय प्रोजेक्ट-आधारित, गतिविधि-आधारित और खोज-उन्मुख शिक्षण पर जोर देना।

छात्रों को कला और विज्ञान या व्यावसायिक और अकादमिक विषयों के बीच मनचाहा संयोजन चुनने की स्वतंत्रता प्रदान की जाती है। मूल्यांकन में सुधार एवं समग्र मूल्यांकन के माध्यम से केवल परीक्षा नहीं, बल्कि विद्यार्थी के पूरे वर्ष के प्रदर्शन, व्यवहार और कौशल का आकलन किया जाता है।

मुख्य शब्द (Keywords): एकीकृत पाठ्यक्रम, सर्वांगीण विकास, अनुभवात्मक अधिगम, लचीलापन

सावित्री बाई फुले: भारत में महिला शिक्षा की योद्धा

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सारांश

भारतीय समाज एक पेट्रियार्कल समाज है जहाँ महिलाओं को पुरुषों से कमतर माना जाता है और यह एक ऐसा समाज भी है जहाँ जाति व्यवस्था चलती है। NCRB की रिपोर्ट के अनुसार, हर साल दलितों पर अत्याचार में 19.4% की बढ़ोतरी हो रही है। इक्विटी वॉचेस रिपोर्ट (2015) से भी पता चलता है कि दलितों पर अत्याचार बढ़ रहे हैं और अगर दलित महिलाओं के डेटा की बात करें तो यह सबसे खराब है। यह आजाद और डेमोक्रेटिक भारत का डेटा है। इसलिए, उस समय दलित महिलाओं की स्थिति का आसानी से अंदाजा लगाया जा सकता है जब भारत आजाद नहीं था। लेकिन, सावित्री बाई फुले, जो निचली जाति से थीं, न केवल निचले वर्ग की महिलाओं के लिए बल्कि समाज की सभी महिलाओं के लिए मील का पत्थर साबित हुईं। वह एक समाज सुधारक और शिक्षिका के रूप में मशहूर हुईं। यह समझा जा सकता है कि सावित्री बाई फुले ने कितने मुश्किल हालात, अत्याचार और भेदभाव झेले होंगे। यह पेपर मिसेज फुले के जीवन, भारत में महिलाओं की शिक्षा में उनके योगदान, समाज सुधार की यात्रा में उनके सामने आई चुनौतियों और आज के समय में उनकी अहमियत पर फोकस करता है।

कीवर्ड: मार्जिनलाइज्ड सेक्शन, महिला एम्पावरमेंट, एजुकेशन, चैलेंज, पेट्रियार्की सोसाइटी।

**उच्च शिक्षा में अंतर विषय के एकीकरण
कला, विज्ञान और वाणिज्य पाठ्यक्रमों का मिश्रण।**

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उच्च शिक्षा के समसामयिक परिदृश्य में अंतर विषयक विषय एकीकरण एक महत्वपूर्ण प्रवृत्ति के रूप में उभरकर सामने आया है। यह अध्ययन कला विज्ञान और वाणिज्य जैसे पारंपरिक विषयों के मिश्रण के माध्यम से ज्ञान के समग्र विकास के स्थिरता का विश्लेषण करता है। वर्तमान समय में जटिल सामाजिक आर्थिक और तकनीकी उपन्यासों का समाधान केवल एकल विषयक दृष्टिकोण से संभव नहीं है। इसलिए बहुविषयक दृष्टिकोण की आवश्यकता बढ़ गई है। इस शोध का उद्देश्य यह है कि किस कला, विज्ञान और वाणिज्य के पंजीकृत प्रारूपों में छात्रों के आलोचना, समस्या समाधान क्षमता, व्यवहारिक ज्ञान विकसित किया जाए। अध्ययन में गुणात्मक पर पद्धति का उपयोग करते हुए विभिन्न सामुदायिक समुदाय, पाठ्यक्रम समूह और शिक्षा शामिल हुए। अंतर विषय के एकीकरण में विद्यार्थियों की कुल मिलाकर क्षमता में वृद्धि होती है और वह रोजगारोन्मुखी और नवीन दर्शन कौशल विकसित कर पाते हैं। हालांकि इसके प्रभावशाली क्रिएटर के लिए पाठ्यक्रम डिजाइन, शिक्षक प्रशिक्षण और ऑपरेशन में सहयोग में सुधार की आवश्यकता है। मूलतः अध्ययन उच्च शिक्षा में बहु विषयक अभ्यास को अभ्यास की दिशा में एक सुसंगत दिशा निर्देश प्रदान करता है।

मुख्य शब्द- उच्च शिक्षा, एकीकरण, कला, विज्ञान, वाणिज्य, सामाजिक, आर्थिक, तकनीकी, दृष्टिकोण

Technology, AI and Digital Transformation in Education Sub Theme :- MOOCs, Swayam, and Virtual Laboratories

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Abstract

Science and technology advancements are becoming a part of our everyday lives. Technology , Artificial Intelligence and Digital Transformation are a special connection between these three. Technology provides the tools, AI makes those tools intelligent, Digital Transformation uses these tools to modernize. Systems.

In simple terms: Technology builds → AI enhances → Digital Transformation applies.

There is a growing need for technology for students to succeed in the future. Technology integration in education makes the teaching-learning process effective and more interesting.

In today's era, education is not limited to the classroom but is provided to students through online platforms through the internet and digital technology. To provide quality education to students through online platforms using internet and digital technology. Technology , Artificial Intelligence, and digital transformation is changing the face of education and providing many benefits to students, thereby increasing their efficiency and improving quality. With the advancement in information technology, educational institutions have adopted online education. In this Context ,online Platforms like Swayam , MOOCs, and Virtual labs are revolutionizing the field of Education. Swayam is a platform for providing courses, MOOCs is the course content and structure and virtual lab provides practical knowledge. Together these three form a complete digital education system. SWAYAM Portal is an online teaching platform launched by the Government of India to provide free education through MOOCs. Many Technical courses incorporate simulated environments to provide practical hands – on experience in a virtual labs. This research paper is an attempt to get back ground knowledge about SWAYAM , MOOCs, and Virtual Labs its features , Objective , structure and component.

Key Words:- SWAYAM , MOOCs , Virtual labs, AI, Digital Transformation, Technology.

Role of SWAYAM in Transforming 21st Century Higher Education and Research

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Abstract

SWAYAM (Study Webs of Active Learning for Young Aspiring Minds), an initiative of the Government of India, has emerged as a pivotal platform for democratizing access to quality education across the country. This platform has designed in alignment with the objectives of the National Education Policy 2020. This paper critically evaluates the role of SWAYAM in reshaping contemporary higher education and enhancing research competencies, with particular emphasis on its pedagogical innovations, accessibility, and academic integration. SWAYAM offers a wide range of Massive Open Online Courses (MOOCs) covering disciplines from school education to postgraduate and professional levels. Courses are developed and delivered by premier institutions under the guidance of regulatory bodies such as the University Grants Commission, All India Council for Technical Education (AICTE) and National Council of Educational Research and Training (NCERT). The platform provides structured learning through four-quadrant models, including video lectures, e-content, self-assessment, and discussion forums, thereby ensuring a comprehensive learning experience. Notably, SWAYAM facilitates credit transfer mechanisms, enabling students to integrate online courses into formal degree programs, thus strengthening the link between digital and traditional education systems. As India moves towards a knowledge-based economy, SWAYAM is poised to play a critical role in shaping the future of education through innovation, inclusivity, and lifelong learning

Keywords: SWAYAM, Online Courses. Traditional Education System, UGC, AICTE, NCERT

Application Of Artificial Intelligence in Classroom Teaching Practice

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Abstract

This paper explains that the application of Artificial Intelligence (AI) is rapidly transforming the way teachers teach in the classroom. It has become a revolutionary approach to improve the quality, accessibility, and effectiveness of education. The National Education Policy 2020 provides a forward-looking framework that promotes the integration of technology, including AI, to enhance the teaching-learning process. It highlights how AI-based tools—such as intelligent tutoring systems, adaptive learning platforms, automated assessments, and virtual assistants—can support personalized and competency-based learning.

This paper examines how AI tools can be used in the classroom to improve learning outcomes and teaching efficiency. It also emphasizes that AI can support personalized learning, lesson planning, content creation, intelligent tutoring, chatbots, classroom management, data-driven decision-making, analytics, and teacher support. At the same time, it acknowledges emerging challenges for learners, including adapting to technological changes, managing digital distractions, and addressing issues related to access and equity. Therefore, a careful and balanced use of AI is necessary to maximize its benefits and to prepare students to face new challenges in the evolving educational landscape.

Keywords: Artificial Intelligence, Classroom Teaching, National Education Policy 2020, Educational Technology.

Agaricus Fungi and Their Uses

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Abstract

The genus *Agaricus* comprises a group of widely distributed edible and medicinal mushrooms belonging to the family Agaricaceae. Among them, *Agaricus bisporus* is the most commonly cultivated species worldwide, known for its nutritional value and culinary versatility. *Agaricus* species are rich in proteins, dietary fibers, vitamins (especially B-complex), and essential minerals, making them an important component of a balanced diet. In addition to their nutritional significance, these fungi possess various bioactive compounds such as polysaccharides, phenolics, and antioxidants, which contribute to their medicinal properties. Studies have demonstrated their potential roles in enhancing immune response, exhibiting anti-cancer, anti-inflammatory, and antimicrobial activities. Furthermore, *Agaricus* fungi are used in biotechnology for enzyme production and waste decomposition, contributing to environmental sustainability. Due to their economic importance and health benefits, *Agaricus* species continue to be a focus of research in food science, medicine, and industrial applications.

Keywords: *Agaricus*, mushrooms, *Agaricus bisporus*, nutrition, medicinal properties, antioxidants, biotechnology, edible fungi, immunomodulation, sustainable agriculture

मन्नू भंडारी के उपन्यासों में सामाजिक परिवर्तन और नारी जीवन का अध्ययन

सुनीता शर्मा

सहायक आचार्या

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सारांश

यह शोधपत्र मन्नू भंडारी के उपन्यासों में सामाजिक परिवर्तन और नारी जीवन के अंतर्संबंधों का विस्तृत एवं आलोचनात्मक विश्लेषण प्रस्तुत करता है। हिंदी साहित्य में मन्नू भंडारी का महत्वपूर्ण स्थान है, क्योंकि उन्होंने अपने साहित्य के माध्यम से आधुनिक भारतीय समाज की जटिलताओं, मध्यवर्गीय जीवन की समस्याओं, पारिवारिक विघटन तथा स्त्री अस्मिता के प्रश्नों को अत्यंत यथार्थवादी दृष्टिकोण से चित्रित किया है। उनके उपन्यासों में स्त्री केवल एक पारंपरिक भूमिका निभाने वाली पात्र नहीं है, बल्कि वह सामाजिक परिवर्तन की सक्रिय वाहक के रूप में सामने आती है।

इस शोध का मुख्य उद्देश्य यह स्पष्ट करना है कि बदलते सामाजिक, आर्थिक और सांस्कृतिक परिवेश में स्त्री की स्थिति, भूमिका और पहचान किस प्रकार रूपांतरित होती है। इसके लिए मन्नू भंडारी के प्रमुख उपन्यास आपका बंटी और महाभोज को अध्ययन का आधार बनाया गया है। वहीं महाभोज में सामाजिक और राजनीतिक व्यवस्था के भीतर व्याप्त अन्याय, भ्रष्टाचार और शोषण के संदर्भ में स्त्री की संघर्षशील भूमिका को उभारकर दिखाया गया है।

यह अध्ययन दर्शाता है कि मन्नू भंडारी के उपन्यासों में सामाजिक परिवर्तन केवल बाहरी संरचनाओं तक सीमित नहीं है, बल्कि यह व्यक्ति के मानसिक संसार और पारिवारिक संबंधों को भी गहराई से प्रभावित करता है। शिक्षा, आर्थिक स्वतंत्रता, सामाजिक चेतना और राजनीतिक जागरूकता जैसे तत्व स्त्री सशक्तिकरण के प्रमुख आधार बनते हैं।

अंततः यह कहा जा सकता है कि मन्नू भंडारी का साहित्य आधुनिक हिंदी साहित्य में स्त्री विमर्श और सामाजिक परिवर्तन का एक महत्वपूर्ण दस्तावेज है। उनका लेखन नारी जीवन की समस्याओं को उजागर करने के साथ-साथ उसे एक सशक्त और आत्मनिर्भर स्वर प्रदान करता है, जिससे समाज में परिवर्तन की नई संभावनाएँ विकसित होती हैं।

कुंजी शब्द : नारी जीवन, सामाजिक परिवर्तन, स्त्री अस्मिता, हिंदी उपन्यास, मन्नू भंडारी, स्त्री विमर्श, सामाजिक यथार्थ, मध्यवर्गीय समाज

महिला लेखिकाओं के साहित्य में स्त्री चेतना और आत्म पहचान: एक आलोचनात्मक अध्ययन

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सारांश

प्रस्तुत शोधपत्र महिला लेखिकाओं के साहित्य में स्त्री चेतना और आत्म पहचान के विविध आयामों का आलोचनात्मक अध्ययन प्रस्तुत करता है। आधुनिक हिंदी साहित्य में महिला लेखिकाओं ने समाज में स्त्री की बदलती स्थिति, उसके संघर्ष, आत्मसम्मान, स्वतंत्रता और पहचान के प्रश्नों को अत्यंत संवेदनशीलता और यथार्थवादी दृष्टिकोण से चित्रित किया है। उनके साहित्य में स्त्री केवल एक पारंपरिक भूमिका निभाने वाली पात्र नहीं है, बल्कि वह सामाजिक, सांस्कृतिक और मनोवैज्ञानिक स्तर पर अपनी स्वतंत्र पहचान स्थापित करने का प्रयास करती हुई दिखाई देती है।

इस शोध का मुख्य उद्देश्य महिला लेखिकाओं के साहित्य में स्त्री चेतना और आत्म पहचान के स्वरूप को समझना तथा यह विश्लेषण करना है कि उनके लेखन में स्त्री किस प्रकार अपने अस्तित्व और अधिकारों के लिए संघर्ष करती है।

अध्ययन से यह स्पष्ट होता है कि महिला लेखिकाओं के साहित्य में स्त्री चेतना केवल सामाजिक समस्याओं के चित्रण तक सीमित नहीं है, बल्कि यह आत्मसम्मान, स्वतंत्रता, समानता और आत्मनिर्भरता की भावना से जुड़ी हुई है। यह चेतना सामाजिक परिवर्तन की दिशा में एक महत्वपूर्ण कदम है।

अंततः यह कहा जा सकता है कि महिला लेखिकाओं का साहित्य स्त्री चेतना और आत्म पहचान का सशक्त माध्यम है, जो समाज में स्त्री की भूमिका और स्थिति को नई दिशा प्रदान करता है। उनका लेखन आधुनिक हिंदी साहित्य में स्त्री विमर्श के विकास में महत्वपूर्ण योगदान देता है और सामाजिक परिवर्तन की प्रक्रिया को मजबूत बनाता है।

कुंजी शब्द:

स्त्री चेतना, आत्म पहचान, महिला लेखिकाएँ, हिंदी साहित्य, स्त्री विमर्श, सामाजिक परिवर्तन, नारी अस्मिता

Education in Rural and Marginalized Communities

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Abstract

Education is widely recognized as a fundamental human right and a cornerstone for sustainable development. However, access to quality education remains unevenly distributed, particularly among rural and marginalized communities. This research paper explores the structural, socio-economic, and cultural barriers that hinder educational access and attainment in these communities. It examines factors such as poverty, gender inequality, lack of infrastructure, digital divide, and inadequate policy implementation that contribute to persistent disparities. The study adopts a qualitative and analytical approach, drawing upon secondary data, policy reports, and case studies from developing regions, with particular emphasis on India. It evaluates existing government initiatives and non-governmental interventions aimed at improving educational inclusion, such as mid-day meal schemes, digital literacy programs, and community-based schooling models.

Furthermore, the paper highlights the importance of culturally responsive pedagogy, localized curriculum development, and teacher training in addressing the diverse needs of marginalized learners. It also discusses the role of technology and public-private partnerships in bridging educational gaps. The findings suggest that while policy frameworks exist, their effectiveness is often limited by poor implementation, lack of resources, and socio-cultural resistance. The paper proposes a multi-dimensional strategy that includes strengthening infrastructure, promoting gender equity, enhancing teacher capacity, and leveraging digital tools to ensure inclusive and equitable education.

Ultimately, this research underscores the need for a holistic and participatory approach involving government, civil society, and local communities to achieve educational equity. By addressing systemic challenges and adopting innovative solutions, it is possible to transform education systems and empower marginalized populations, thereby contributing to broader socio-economic development.

Keywords: Rural education, marginalized communities, educational inequality, inclusive education, digital divide, policy implementation, community participation, educational reform

SOCIAL SKILLS OF STUDENTS WITH MILD INTELLECTUAL DISABILITY IN INCLUSIVE AND SPECIAL SCHOOL SETTINGS

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Abstract

The present study examines the social skills of students with mild intellectual disability studying in inclusive and special school settings. The sample consisted of 100 students, of which 52 were from inclusive schools and 48 from special schools. The data were collected using the EACCID scale. The findings revealed statistically significant differences between the two groups across all domains of social skills, including mealtime behaviour, mobility skills, grocery shopping, toileting, post office skills, and other survival skills. The results indicated that students in special schools performed better in structured self-care skills such as mealtime behaviour, mobility, and toileting. In contrast, students in inclusive schools demonstrated higher performance in community-based and functional skills such as grocery shopping, post office skills, and other survival skills. The findings suggest that both educational settings contribute differently to the development of social skills. Therefore, a balanced approach integrating structured training and real-life exposure is essential for enhancing the overall social competence of students with mild intellectual disability.

Keywords: Social Skills, Intellectual Disability, Inclusive Education, Special Schools, EACCID

आर्टिफिशियल इंटेलिजेंस (AI): समस्या तथा समाधान

डॉ. विमला देवी

सहायक आचार्य, राजनीति विज्ञान

मेहता कॉलेज एंड इंस्टिट्यूट ऑफ टेक्नोलॉजी, हरमाड़ा, जयपुर (राज.)

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सारांश

आर्टिफिशियल इंटेलिजेंस (AI) आज के समय में तेजी से विकसित हो रही तकनीक है। यह एक ऐसी तकनीक है जो मनुष्यों की तरह सोचने, विचार करने, समझने, सीखने, निर्णय लेने तथा समस्याओं का समाधान करने में सक्षम है। साथ ही यह भाषा को समझने और उपयुक्त प्रतिक्रिया देने का एक प्रभावी माध्यम भी है। जॉन मैकार्थी, जो अमेरिका के कंप्यूटर एवं संज्ञानात्मक विज्ञान के प्रसिद्ध वैज्ञानिक थे, उन्होंने ही 'AI' शब्द को गढ़ा था और उन्हें AI का जनक माना जाता है।

वर्ष 1956 में अमेरिका के डार्टमाउथ कॉलेज में आयोजित एक सम्मेलन में "Artificial Intelligence" शब्द पहली बार प्रचलन में आया। आज यह तकनीक स्वचालित वाहन, स्वास्थ्य सेवाएं, मनोरंजन, भाषा अनुवाद, चेहरे की पहचान तथा स्मार्ट उपकरणों में व्यापक रूप से उपयोग की जा रही है।

यद्यपि AI अनेक क्षेत्रों में लाभदायक सिद्ध हो रही है, फिर भी इसकी कुछ समस्याएँ हैं। जैसे-सबसे बड़ी समस्या बेरोजगारी की है, क्योंकि AI मशीनें मानव श्रम का स्थान ले रही हैं। दूसरी समस्या डेटा गोपनीयता और सुरक्षा की है, जहाँ व्यक्तिगत जानकारी के दुरुपयोग का खतरा बढ़ जाता है।

एक रिपोर्ट के अनुसार AI के कारण लगभग 35 प्रतिशत सतत विकास लक्ष्यों के प्रभावित होने की संभावना व्यक्त की गई है।

मुख्य शब्द (Keywords):

आर्टिफिशियल इंटेलिजेंस, प्रतिक्रिया, स्वचालित वाहन, स्वास्थ्य सेवाएं, तकनीक, भाषा अनुवाद, मनोरंजन, चेहरे की पहचान, स्मार्ट उपकरण

The Impact of Digital Media on Traditional Art Forms

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Abstract

The rapid expansion of digital media in the 21st century has significantly transformed the landscape of artistic expression, influencing both contemporary and traditional art forms. This research paper examines the impact of digital media on traditional art practices, focusing on preservation, transformation, accessibility, and commercialization. Traditional art forms, deeply rooted in cultural heritage and community practices, are increasingly being reshaped by digital technologies such as social media platforms, digital design tools, and virtual exhibitions. On one hand, digital media has played a crucial role in preserving endangered art forms by enabling documentation, archiving, and global dissemination. Artists and institutions can now share traditional crafts, performances, and visual arts with wider audiences, thus enhancing cultural awareness and appreciation. On the other hand, the integration of digital tools has led to the transformation of traditional techniques, often blending authenticity with innovation. While such hybridity can revitalize art forms, it may also dilute their original essence and cultural significance.

Furthermore, digital media has created new economic opportunities for traditional artists through online marketplaces and social media promotion. However, challenges such as cultural appropriation, copyright issues, and commercialization pressures persist. The study also highlights the role of digital literacy in empowering artists to adapt to technological changes.

This paper concludes that while digital media presents both opportunities and challenges, its influence on traditional art forms is inevitable and multifaceted. A balanced approach that promotes innovation while safeguarding cultural authenticity is essential for the sustainable development of traditional arts in the digital era.

Keywords

Digital Media, Traditional Art, Cultural Heritage, Digital Transformation, Art Preservation, Social Media, Commercialization, Cultural Identity

Commerce and Skill Development in Contemporary India Entrepreneurship and Self-Reliance Initiatives

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Abstract

In the 21st century, India's economic transformation has significantly enhanced the importance of commerce, skill development, and entrepreneurship for achieving sustainable economic growth and the vision of a self-reliant nation. Traditional trade and business practices are increasingly being replaced by industry-oriented demands and applied competencies. As India transitions towards a knowledge-driven economy, initiatives such as the Skill India Mission aim to improve employability, productivity, and entrepreneurial capabilities among youth by equipping them with essential technical and soft skills.

Entrepreneurship plays a crucial role as an alternative to conventional income-based employment by generating job opportunities, fostering innovation, and promoting economic inclusivity and local development. The Government of India has launched several initiatives to strengthen the commercial ecosystem. Programs such as Startup India, Atmanirbhar Bharat, and Make in India have established a strong framework for innovation and indigenous manufacturing. Targeted schemes like Stand-Up India promote entrepreneurship among women and marginalized communities at the grassroots level. Financial support initiatives such as Pradhan Mantri Mudra Yojana and the Startup India Seed Fund Scheme empower emerging entrepreneurs, encourage innovation, generate employment, and integrate informal businesses into the formal financial system. Furthermore, the expansion of digital infrastructure, e-commerce, fintech solutions, and innovation-driven enterprises has decentralized entrepreneurial growth beyond metropolitan areas to smaller cities and towns. This expansion is supported by self-help groups, micro-enterprises, and community-based organizations, contributing to sustainable economic growth while aligning with environmental standards and reduced carbon footprints. Despite these advancements, challenges such as skill gaps, inadequate infrastructure, and evolving industry requirements persist. These challenges can be addressed through strengthened public-private partnerships and continuous upskilling initiatives. In conclusion, the integration of commerce, inclusive skill development, and a robust entrepreneurial support system is essential for realizing the vision of **Viksit Bharat** and ensuring India's long-term global competitiveness.

जयपुर के सांस्कृतिक एवं आर्थिक विकास में विरासत पर्यटन की

भूमिका

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सार

वर्तमान वैश्विक परिदृश्य में विरासत पर्यटन (Heritage Tourism) केवल आर्थिक उन्नति का साधन नहीं रह गया है, बल्कि यह सांस्कृतिक पहचान के संरक्षण, संवर्धन और प्रसार का एक सशक्त माध्यम बन चुका है। भारत जैसे बहुसांस्कृतिक और बहुभाषी देश में पर्यटन ने न केवल अंतरराष्ट्रीय स्तर पर देश की पहचान को सुदृढ़ किया है, बल्कि विविध सांस्कृतिक परंपराओं को एक साझा मंच भी प्रदान किया है, जहाँ देश-विदेश के लोग भारतीय संस्कृति के विभिन्न आयामों से परिचित हो सकते हैं।

इसी संदर्भ में जयपुर एक प्रमुख पर्यटन केंद्र के रूप में उभरकर सामने आया है, जिसे “पिंक सिटी” के नाम से भी जाना जाता है। जयपुर का ऐतिहासिक महत्व, इसकी योजनाबद्ध नगरीय संरचना, भव्य स्थापत्य कला और जीवंत सांस्कृतिक जीवन इसे अन्य शहरों से विशिष्ट बनाते हैं। यहाँ के किले, महल, मंदिर और संग्रहालय न केवल स्थापत्य कला के उत्कृष्ट उदाहरण हैं, बल्कि वे अतीत की सामाजिक, आर्थिक और सांस्कृतिक संरचना का भी सजीव चित्र प्रस्तुत करते हैं।

आर्थिक दृष्टि से भी विरासत पर्यटन जयपुर के विकास में अत्यंत महत्वपूर्ण भूमिका निभाता है। पर्यटन उद्योग के माध्यम से प्रत्यक्ष एवं अप्रत्यक्ष रूप से बड़े पैमाने पर रोजगार के अवसर उत्पन्न होते हैं, जिससे स्थानीय जनसंख्या की आर्थिक स्थिति में सुधार होता है। इसके अतिरिक्त, पर्यटकों की बढ़ती संख्या के कारण स्थानीय उत्पादों की मांग में वृद्धि होती है, जिससे कुटीर एवं लघु उद्योगों को प्रोत्साहन मिलता है।

मुख्य शब्द: विरासत पर्यटन, जयपुर, सांस्कृतिक विरासत, आर्थिक विकास, सतत पर्यटन, पर्यटन उद्योग, रोजगार सृजन

उच्च शिक्षा में अनुसंधान आधारित शिक्षण और अधिगम

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सारांश

उच्च शिक्षा में अनुसंधान आधारित शिक्षण और अधिगम एक महत्वपूर्ण पहलू है, जो छात्रों को गहन ज्ञान एवं कौशल प्रदान करता है। इसे अनुसंधान-शिक्षण संबंध (Research-Teaching Nexus) के रूप में भी जाना जाता है, जो शिक्षार्थियों में आलोचनात्मक सोच, नवीन ज्ञान की खोज तथा जिज्ञासा को विकसित करता है। यह दृष्टिकोण सीखने की प्रक्रिया को अधिक गहन, सक्रिय और व्यावहारिक बनाता है।

इसका प्रमुख उद्देश्य शोध-आधारित अध्यापन कौशल को विकसित करना तथा नवीनतम शोध निष्कर्षों को कक्षा में प्रस्तुत कर छात्रों में खोजपरक दृष्टिकोण विकसित करना है।

इस संदर्भ में “करके सीखने” (Learning by Doing) के सिद्धांत पर बल देना आवश्यक है, जिसका प्रतिपादन जॉन डीवी ने किया था। उच्च शिक्षा में अनुसंधान और शिक्षण का समन्वय विभिन्न माध्यमों से किया जा सकता है, जैसे—शोध आधारित शिक्षण, परियोजना आधारित अधिगम, प्रयोगशाला में सक्रिय भागीदारी तथा डिजिटल शिक्षण सामग्री का प्रभावी उपयोग।

अनुसंधान आधारित शिक्षण एवं अधिगम को प्रभावी बनाने के लिए शिक्षकों को अपने ज्ञान और कौशल को निरंतर अद्यतन करना आवश्यक है, ताकि वे छात्रों को नवीनतम जानकारी और दक्षताएँ प्रदान कर सकें।

इस प्रकार, उच्च शिक्षा में अनुसंधान आधारित शिक्षण और अधिगम एक महत्वपूर्ण प्रक्रिया है, जो न केवल छात्रों को गहन ज्ञान एवं कौशल प्रदान करती है, बल्कि उन्हें भविष्य में सफल होने के लिए भी सक्षम बनाती है।

मुख्य शब्द: उच्च शिक्षा, अनुसंधान, शिक्षण, अधिगम, कौशल, नवाचार, शोध-आधारित शिक्षा

Impact of Climate Change on Avian Behavior and Distribution in Jaipur, Rajasthan

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Abstract

Climate change is increasingly influencing avian ecology, particularly in semi-arid regions like Jaipur. Jaipur, located in the Aravalli landscape, supports a rich diversity of resident and migratory bird species across habitats such as urban green spaces, wetlands, and forested areas. Key sites like Nahargarh Biological Park host over 285 bird species, reflecting high avian biodiversity in the region. Similarly, wetlands such as Man Sagar Lake attract numerous migratory waterbirds including teal, pintail, and wigeon during winter.

Recent climatic shifts, including increasing temperatures, irregular rainfall, and habitat alteration, are affecting bird behavior, migration timing, and distribution patterns. Migratory birds visiting Jaipur show altered arrival periods and fluctuating population sizes, while resident species exhibit behavioral adaptations such as changes in feeding and breeding cycles. Habitat degradation and urban expansion further exacerbate these impacts.

This study aims to assess the influence of climate change on avian diversity and distribution in Jaipur through field observations and secondary data analysis. Understanding these changes is essential for developing effective conservation strategies and ensuring the sustainability of urban and peri-urban bird populations.

Keywords

Climate Change, Avian Diversity, Migration, Jaipur, Wetlands, Distribution, Behavior

Nanotechnology-Driven Strategies for Efficient Pollution Mitigation: Advances, Applications and Challenges

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Abstract

Nanotechnology has emerged as a transformative and data-driven approach for mitigating environmental pollution through highly efficient and sustainable techniques. Nanomaterials, owing to their large surface area-to-volume ratio and enhanced reactivity, have demonstrated remarkable efficiency in pollutant removal and degradation. For instance, nano-adsorbents such as graphene oxide and carbon nanotubes have shown adsorption capacities exceeding **200–500 mg/g** for heavy metals like lead and cadmium, significantly outperforming conventional materials. Similarly, iron oxide nanoparticles have achieved up to **95–99% removal efficiency** for arsenic from contaminated water.

Nanocatalysts, particularly titanium dioxide (TiO₂) and zinc oxide (ZnO), are widely used in photocatalytic degradation, achieving **80–100% degradation** of organic pollutants such as dyes and pesticides under UV or visible light within a few hours. Advanced nanofiltration membranes exhibit **over 90% efficiency** in removing pathogens, microplastics, and dissolved contaminants, while also improving desalination processes with reduced energy consumption by nearly **20–30%** compared to traditional systems.

In addition, nanobioremediation has enhanced microbial degradation rates by **30–60%**, facilitating the breakdown of hydrocarbons and toxic compounds in soil and aquatic environments. Nanosensors further enable real-time monitoring with detection limits as low as **parts per billion (ppb)**, ensuring early identification of pollutants and effective environmental management.

Despite these promising outcomes, challenges such as nanoparticle toxicity, environmental risks, and high production costs persist.

Keywords: Nanotechnology; Pollution mitigation; Nano-adsorbents; Photocatalysis; Nanobioremediation

Nanophotonic Materials for Energy-Efficient Smart Lighting Systems in Heritage Cities like Jaipur

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Abstract

The growing demand for sustainable urban infrastructure has intensified the need for advanced energy-efficient lighting systems, particularly in heritage cities where technological modernization must align with cultural preservation. Public lighting is a major contributor to urban energy consumption while also playing a crucial role in safety, visual aesthetics, and tourism development. Heritage cities such as Jaipur face the dual challenge of improving lighting efficiency while preserving historical authenticity and architectural integrity.

This study presents a comprehensive review and a conceptual framework for integrating nanophotonic materials into smart lighting systems designed for heritage environments. Nanophotonics enables precise manipulation of light at subwavelength scales, providing enhanced control over emission properties such as intensity, spectral distribution, directionality, and polarization. When incorporated into solid-state lighting technologies, particularly light-emitting diodes (LEDs), nanophotonic structures—including photonic crystals, plasmonic nanostructures, and metasurfaces—significantly improve light extraction efficiency, reduce optical losses, and enable advanced spectral tuning.

The paper further evaluates the evolution of lighting infrastructure in Jaipur, highlighting the outcomes of large-scale LED retrofit initiatives that have led to substantial reductions in energy consumption and carbon emissions. Building on these developments, a multi-layered framework is proposed that integrates nanophotonic-enhanced lighting systems with Internet of Things (IoT)-enabled adaptive control mechanisms and heritage-sensitive illumination strategies. This framework aims to optimize energy performance, minimize light pollution, and ensure visual harmony with historical architecture. Additionally, the study identifies key challenges related to material durability, scalability, economic feasibility, and policy integration, while outlining future research directions for the broader adoption of nanophotonic smart lighting systems. Overall, this work contributes to the interdisciplinary domains of nanotechnology, photonics, and sustainable urban development, offering a scalable approach for implementing high-performance and culturally adaptive lighting solutions in heritage cities worldwide.

Keywords: Nanophotonic Materials; Smart Lighting Systems; Heritage Cities; Energy Efficiency; Solid-State Lighting (SSL); Light-Emitting Diodes (LEDs); Photonic Crystals; Metasurfaces; Internet of Things (IoT); Sustainable Urban Infrastructure; Light Pollution Reduction; Jaipur

Solid Waste Dumping Sites and Groundwater Pollution Risk Zonation in Jaipur, Rajasthan, India

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Abstract

Rapid urban expansion in Jaipur has resulted in a substantial increase in municipal solid waste generation, leading to widespread reliance on open dumping practices. The absence of scientifically engineered landfill systems has raised serious concerns regarding groundwater contamination, particularly in areas surrounding major dumping sites such as Mathuradaspora, Langadiyawas, and Sewapura.

This study synthesizes findings from peer-reviewed investigations to assess the impact of solid waste dumping on groundwater quality and to delineate groundwater pollution risk zones in Jaipur. Hydrochemical parameters including electrical conductivity, total dissolved solids, chloride, nitrate, fluoride, and selected heavy metals were evaluated using spatial and distance-based interpretations.

The results indicate significant deterioration of groundwater quality in the immediate vicinity of dumping sites, with contaminant concentrations generally decreasing with increasing distance. GIS-based conceptual risk zonation highlights high-risk zones within one to two kilometers of dump sites, reflecting sustained leachate infiltration and limited natural attenuation.

The vulnerability of groundwater resources is further intensified by semi-arid climatic conditions and fractured hard-rock aquifers. The study emphasizes the need for improved solid waste management practices, including engineered landfills, leachate control systems, and continuous groundwater monitoring.

Integration of groundwater pollution risk zonation into urban planning is recommended to safeguard water resources and public health in Jaipur.

Role of Women in Environment Conservation and development

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Abstract

Recent studies have shown that one in four women worldwide, or about 620 million women, rate their lives positively enough to be considered 'thriving'. These studies also show that women play a crucial role due to their active involvement in conservation activities and management of the environment. However, they are often viewed as insignificant partners and are not accorded due attention. Many women-related economic and social activities depend on environmental resources.

Yet, women are denied access to effective and sustainable use of forest resources, and they have limited or no control over land, capital, and labour. Women therefore suffer numerous limitations accordingly. As a result of widespread mistreatment and overt discrimination in all dimensions of women's lives, women lack significant autonomy.

The central preoccupation of this review is to explore the key role of women in environmental conservation and discuss the current challenges and opportunities for the future. Equipped with the right tools, the massive and growing generation of women in Africa, particularly Nigeria, has the potential to drive development, achieve global goals, and transform the continent's future along with their own.

It is therefore recommended that for sustainable development to take root, access and ownership of natural resources should be enhanced for all genders, particularly women, people living with disabilities, marginalized, and minority groups. Unless women's efforts are recognised, we may be pushing towards planetary limits. Without a vibrant women's movement, the Sustainable Development Goals are at risk, potentially leading to a global crisis.

Keywords: Gender; Women-related economic and social activities; Environmental resources; Conservation activities; Planetary limits; Global.

राष्ट्रीय शिक्षा नीति (NEP) 2020 के प्रभावी क्रियान्वयन में चुनौतियाँ और रणनीतियाँ

डॉ. पूनम बिष्ट

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सारांश

यह अध्ययन शिक्षा को मानव विकास और राष्ट्र निर्माण का मूल आधार मानते हुए राष्ट्रीय शिक्षा नीति 2020 (NEP 2020) के उद्देश्यों, विशेषताओं तथा क्रियान्वयन की चुनौतियों का विश्लेषण प्रस्तुत करता है। शिक्षा न केवल व्यक्ति को आत्मनिर्भर और जागरूक बनाती है, बल्कि उसके सपनों को साकार करने में भी महत्वपूर्ण भूमिका निभाती है। इसी दृष्टि से NEP 2020 को एक दूरदर्शी पहल के रूप में प्रस्तुत किया गया है, जिसका लक्ष्य गुणवत्तापूर्ण, समावेशी, कौशल-आधारित और जीवनपर्यंत अधिगम को बढ़ावा देना है।

राष्ट्रीय शिक्षा नीति 2020 के प्रमुख प्रावधानों में 5+3+3+4 शिक्षा संरचना, व्यावसायिक शिक्षा का समावेश, मातृभाषा में शिक्षण, तकनीकी एवं कृत्रिम बुद्धिमत्ता का उपयोग, उच्च शिक्षा में लचीलापन, शोध एवं नवाचार को बढ़ावा तथा पारदर्शी शिक्षक भर्ती जैसी व्यवस्थाएँ शामिल हैं। यह नीति शिक्षा को केवल रोजगार तक सीमित न रखकर चरित्र निर्माण, नैतिकता, रचनात्मकता और समस्या-समाधान क्षमता के विकास पर भी बल देती है।

हालाँकि, इस नीति के प्रभावी क्रियान्वयन में कई चुनौतियाँ विद्यमान हैं, जैसे केंद्र और राज्य सरकारों के बीच समन्वय की कमी, वित्तीय संसाधनों का अभाव, ग्रामीण एवं शहरी क्षेत्रों में असमानता, योग्य शिक्षकों की कमी, भाषा संबंधी विवाद तथा बुनियादी ढाँचे की कमजोरियाँ। इसके अतिरिक्त, सामाजिक-आर्थिक विषमताएँ और शिक्षा के विभिन्न स्तरों के बीच तालमेल की कमी भी महत्वपूर्ण बाधाएँ हैं।

अतः, NEP 2020 की सफलता इसके चरणबद्ध, समन्वित और प्रभावी क्रियान्वयन पर निर्भर करती है। यदि इन चुनौतियों का समाधान उचित नीतिगत उपायों, पर्याप्त संसाधनों और प्रशिक्षित मानवबल के माध्यम से किया जाए, तो यह नीति भारत को वैश्विक स्तर पर एक सशक्त, ज्ञान-आधारित राष्ट्र के रूप में स्थापित करने में महत्वपूर्ण योगदान दे सकती है।

स्वामी विवेकानंद के विचारों के चरित्र निर्माण एवं सामाजिक परिवर्तन में योगदान- एक समकालीन विश्लेषण

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सार

उन्नीसवीं शताब्दी के उत्तरार्ध में भारतीय समाज एक व्यापक सामाजिक, सांस्कृतिक एवं बौद्धिक परिवर्तन के दौर से गुजर रहा था, जहाँ एक ओर औपनिवेशिक प्रभाव बढ़ रहा था, वहीं दूसरी ओर पारंपरिक मूल्यों और आधुनिक विचारों के बीच द्वंद्व स्पष्ट रूप से दिखाई दे रहा था। ऐसे संक्रमणकाल में Swami Vivekananda ने अपने ओजस्वी विचारों एवं व्यावहारिक दृष्टिकोण के माध्यम से भारतीय समाज को एक नई दिशा प्रदान की। उन्होंने न केवल भारतीय आध्यात्मिक परंपरा को पुनर्जीवित किया, बल्कि उसे आधुनिक संदर्भों के अनुरूप प्रस्तुत करते हुए शिक्षा, चरित्र निर्माण और सामाजिक परिवर्तन के क्षेत्र में एक सुदृढ़ वैचारिक आधार स्थापित किया। विवेकानंद ने शिक्षा को केवल ज्ञानार्जन या रोजगार प्राप्ति का साधन न मानकर “मनुष्य निर्माण” की प्रक्रिया के रूप में परिभाषित किया। उनके अनुसार शिक्षा का वास्तविक उद्देश्य व्यक्ति के भीतर निहित शक्तियों का विकास करना तथा उसे आत्मनिर्भर, नैतिक और उत्तरदायी नागरिक बनाना है। वर्तमान समय में, जब शिक्षा का स्वरूप अधिकतर व्यावसायिक और प्रतिस्पर्धात्मक हो गया है, उनके विचार शिक्षा में मूल्य-आधारित दृष्टिकोण की आवश्यकता को रेखांकित करते हैं। चरित्र निर्माण के संदर्भ में विवेकानंद का दृष्टिकोण अत्यंत महत्वपूर्ण है। उन्होंने सत्य, अनुशासन, आत्मसंयम, निष्ठा और सेवा-भाव को मानव जीवन के मूल स्तंभों के रूप में स्थापित किया। उनका मानना था कि किसी भी राष्ट्र की प्रगति उसके नागरिकों के चरित्र पर निर्भर करती है। आज के भौतिकवादी और प्रतिस्पर्धात्मक युग में, जब नैतिक मूल्यों का हास देखा जा रहा है, उनके विचार युवाओं को संतुलित, नैतिक और जिम्मेदार जीवन जीने की प्रेरणा प्रदान करते हैं। सामाजिक परिवर्तन के क्षेत्र में भी विवेकानंद का योगदान उल्लेखनीय है। उन्होंने समाज में व्याप्त असमानता, अज्ञानता और रूढ़िवादिता के विरुद्ध आवाज उठाई तथा मानवतावाद, समरसता और सेवा के आदर्शों को बढ़ावा दिया। उनका यह सिद्धांत कि “नर सेवा ही नारायण सेवा है” समाज के प्रति उत्तरदायित्व और संवेदनशीलता को प्रोत्साहित करता है। अतः यह स्पष्ट होता है कि विवेकानंद के विचार शिक्षा, चरित्र निर्माण और सामाजिक परिवर्तन को एक समग्र एवं परस्पर संबंधित प्रक्रिया के रूप में प्रस्तुत करते हैं। वर्तमान समय में उनकी प्रासंगिकता और भी अधिक बढ़ जाती है, क्योंकि उनके सिद्धांत न केवल व्यक्तिगत विकास के लिए, बल्कि एक सशक्त, नैतिक और समावेशी समाज के निर्माण के लिए भी मार्गदर्शक सिद्ध होते हैं।

Value-Based and Moral Education in Accordance with Indian Tradition

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Abstract

Indian tradition has long emphasized the importance of value-based and moral education as the foundation for individual and societal development. Ancient Indian texts such as the Vedas, Upanishads, Bhagavad Gita, Ramayana, and Mahabharata highlight universal values like truth, non-violence, righteousness, compassion, tolerance, and self-discipline. These values are essential for shaping character and promoting harmony, peace, and ethical behavior in society. In the contemporary world, rapid modernization, technological advancement, and increasing consumerism have led to a noticeable decline in moral values, particularly among the youth. Issues such as indiscipline, intolerance, selfishness, and lack of social responsibility are becoming more prevalent. This situation calls for the integration of traditional value systems into modern education to ensure balanced and holistic development.

Value-based education in the Indian context goes beyond intellectual growth and focuses equally on physical, emotional, spiritual, and moral development. It aims to cultivate qualities such as integrity, empathy, respect, and responsibility among learners. Educational institutions play a vital role in this process by incorporating moral values through curriculum design, co-curricular activities, and positive teacher-student interactions. Practices like yoga, meditation, storytelling from Indian scriptures, and community service are effective tools for imparting these values.

This study adopts a qualitative approach, analyzing classical Indian literature, educational policies, and contemporary academic perspectives. The findings suggest that moral education should not remain theoretical but must be practiced in daily life. The National Education Policy (NEP 2020) also emphasizes holistic and value-based education aligned with Indian cultural heritage.

In conclusion, integrating value-based and moral education rooted in Indian tradition is essential for developing responsible individuals and creating a just, ethical, and harmonious society.

महिला सशक्तिकरण के निर्धारक तत्व: बीकानेर क्षेत्र का अनुभवजन्य अध्ययन

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सार

आज के समय में महिला सशक्तिकरण केवल एक सामाजिक अवधारणा नहीं, बल्कि समग्र और सतत विकास का एक अनिवार्य आधार बन चुका है। यह प्रक्रिया महिलाओं को केवल कानूनी अधिकार प्रदान करने तक सीमित नहीं रहती, बल्कि उन्हें आत्मनिर्भर, आत्मविश्वासी और अपने जीवन से जुड़े निर्णय लेने में सक्षम बनाती है। किसी भी समाज की प्रगति का आकलन इस बात से किया जा सकता है कि वहाँ महिलाओं की स्थिति कितनी सुदृढ़ और सम्मानजनक है।

बीकानेर क्षेत्र के संदर्भ में प्रस्तुत यह अध्ययन महिला सशक्तिकरण के प्रमुख तत्वों—शिक्षा, आर्थिक स्वावलंबन, स्वास्थ्य एवं पोषण, सामाजिक जागरूकता और राजनीतिक सहभागिता—का अनुभवजन्य विश्लेषण करता है। यह क्षेत्र पारंपरिक और आधुनिक सामाजिक संरचनाओं का मिश्रण प्रस्तुत करता है, जहाँ एक ओर सांस्कृतिक मूल्यों और परंपराओं का गहरा प्रभाव है, वहीं दूसरी ओर शिक्षा, शहरीकरण और सरकारी योजनाओं के कारण परिवर्तन की प्रक्रिया भी स्पष्ट रूप से दिखाई देती है।

अध्ययन से यह ज्ञात होता है कि बीकानेर क्षेत्र में महिलाओं की स्थिति में धीरे-धीरे सकारात्मक परिवर्तन हो रहा है। विशेषकर शिक्षा के क्षेत्र में बालिकाओं की बढ़ती भागीदारी और स्वयं सहायता समूहों के माध्यम से आर्थिक गतिविधियों में महिलाओं की सक्रिय उपस्थिति उनके सशक्तिकरण की दिशा में महत्वपूर्ण संकेत हैं। महिलाएँ अब छोटे-छोटे व्यवसायों, हस्तशिल्प कार्यों और स्वरोजगार के माध्यम से आर्थिक रूप से सशक्त बनने का प्रयास कर रही हैं, जिससे उनके आत्मविश्वास और सामाजिक प्रतिष्ठा में वृद्धि हो रही है।

इसके साथ ही, स्वास्थ्य सेवाओं की पहुँच में भी कुछ सुधार देखने को मिलता है, यद्यपि ग्रामीण क्षेत्रों में अभी भी पर्याप्त सुविधाओं और जागरूकता का अभाव बना हुआ है। सामाजिक जागरूकता के स्तर में वृद्धि के कारण महिलाएँ अपने अधिकारों और कर्तव्यों के प्रति अधिक सजग हो रही हैं। पंचायत स्तर पर महिलाओं की बढ़ती भागीदारी यह दर्शाती है कि वे अब निर्णय-निर्माण की प्रक्रिया में भी अपनी उपस्थिति दर्ज करा रही हैं।

फिर भी, यह अध्ययन स्पष्ट करता है कि बीकानेर क्षेत्र में महिला सशक्तिकरण की प्रक्रिया अभी पूर्ण नहीं हुई है। पारंपरिक सोच, लैंगिक भेदभाव, शिक्षा और संसाधनों तक असमान पहुँच तथा सामाजिक प्रतिबंध अभी भी महिलाओं के विकास में बाधा उत्पन्न करते हैं। कई मामलों में महिलाओं की भागीदारी केवल औपचारिक रह जाती है और वास्तविक निर्णय लेने की शक्ति उनके हाथों में नहीं होती।

अतः यह आवश्यक है कि महिला सशक्तिकरण को एक समग्र दृष्टिकोण से देखा जाए, जिसमें शिक्षा, आर्थिक अवसर, स्वास्थ्य सुविधाएँ और सामाजिक जागरूकता को समान रूप से महत्व दिया जाए। साथ ही, सरकारी नीतियों और योजनाओं का प्रभावी क्रियान्वयन सुनिश्चित किया जाना चाहिए, ताकि महिलाएँ वास्तव में सशक्त बन सकें। इस प्रकार, महिला सशक्तिकरण न केवल महिलाओं के व्यक्तिगत विकास का माध्यम है, बल्कि यह समाज और राष्ट्र के समग्र विकास की दिशा में एक महत्वपूर्ण कदम भी है।

मुख्य शब्द (Keywords):

महिला सशक्तिकरण, बीकानेर, शिक्षा, आर्थिक स्वावलंबन, सामाजिक जागरूकता, स्वास्थ्य, राजनीतिक सहभागिता

Climate–Pollution Interaction in Jaipur: How Heat Waves Amplify Urban Air Pollution

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Abstract

The interaction between climate change and urban air pollution has emerged as a critical environmental challenge in rapidly growing cities across the globe. Jaipur, a major urban center located in the semi-arid region of northwestern India, provides a compelling case to examine how extreme climatic events such as heat waves intensify air pollution. This paper explores the dynamic relationship between rising temperatures and the concentration of urban pollutants, focusing on physical, chemical, and socio-economic dimensions. Heat waves influence atmospheric stability, chemical reactions, and pollutant dispersion, thereby exacerbating air quality degradation. Using Jaipur as a case study, the paper highlights the role of local geography, emission sources, urban heat island effects, and climate variability in shaping pollution patterns. It also evaluates the health impacts, policy responses, and mitigation strategies required to address this compounded environmental crisis. The study concludes that an integrated climate–air quality management approach is essential to ensure sustainable urban development in Jaipur and similar cities.

Sporangium development in pteridophytes

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Abstract

Sporangium development in pteridophytes represents a crucial phase in their life cycle, reflecting evolutionary adaptations among early vascular plants. Pteridophytes exhibit two main types of sporangial development: **eusporangiate** and **leptosporangiate**. In eusporangiate development, the sporangium originates from a group of initial cells, resulting in a large structure with a multi-layered wall and numerous spores. In contrast, leptosporangiate development arises from a single initial cell, producing a smaller sporangium with a single-layered wall and fewer spores. The process involves cell division, differentiation of sporogenous tissue, and formation of spore mother cells, which undergo meiosis to produce haploid spores. Specialized structures like the annulus aid in spore dispersal, particularly in leptosporangiate forms. This developmental diversity highlights the evolutionary progression and ecological adaptation of pteridophytes, bridging the gap between non-vascular bryophytes and higher seed plants.

Keywords: Pteridophytes, Sporangium development, Eusporangiate, Leptosporangiate, Sporogenous tissue, Meiosis, Spore dispersal, Annulus, Vascular plants.

From Data to Decision: A Review of AI-Assisted Software in Sustainable Pollution Management

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Abstract

Pollution has emerged as a critical global environmental challenge, significantly affecting air, water, and soil quality. Conventional monitoring methods are often time-consuming, labor-intensive, and limited in providing real-time insights. In this context, Artificial Intelligence (AI)-assisted software has gained prominence as an efficient and advanced approach for pollution monitoring, prediction, and control. AI-assisted systems integrate machine learning, deep learning, data analytics, and Internet of Things (IoT) sensors to process large-scale environmental data. These technologies enable real-time detection of pollutants such as carbon dioxide, sulfur dioxide, nitrogen oxides, particulate matter, and various water contaminants including pH imbalance, dissolved oxygen, heavy metals, and microbial load. Additionally, AI models can identify pollution sources and forecast future environmental risks, thereby facilitating proactive decision-making. Several platforms, including IBM Environmental Intelligence Suite, AirVisual, ENVI-met, AQMIS, and Climate TRACE, are widely used for pollution assessment and management. These tools provide real-time dashboards, predictive analytics, and spatial mapping of pollution hotspots. Recent studies indicate that machine learning models such as Random Forest can achieve prediction accuracies of up to 98.2% for air quality assessment. Furthermore, AI systems leveraging satellite data, IoT networks, and traffic monitoring can identify pollution sources within hours. The urgency of such technologies indicated nearly 99% of the global population is exposed to unsafe air, with millions of deaths annually linked to pollution, particularly in countries like India. Despite advantages such as accuracy, efficiency, and cost-effectiveness, challenges including data privacy, high implementation costs, and technical limitations persist. Overall, AI-assisted software represents a transformative tool for sustainable pollution management and environmental protection.

Keywords: Artificial Intelligence, Pollution Control, Machine Learning, Environmental Monitoring, IoT, Sustainable Development

The Psychological Impact of Inclusive Education on Student Well-being

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Abstract

This study explores The Psychological Impact of Inclusive Education on Student Well-being, emphasizing how inclusive learning environments influence students' emotional, social, and cognitive development. Inclusive education promotes equal participation by accommodating diverse learning needs, fostering a sense of belonging and acceptance among students. Grounded in psychological frameworks such as Social Identity Theory and Self-Determination Theory, the study investigates how inclusion supports identity formation, motivation, and interpersonal relationships.

Using a mixed-methods approach, data were collected through surveys and interviews from students in both inclusive and traditional classroom settings. The findings reveal that inclusive education positively impacts student well-being by enhancing self-esteem, reducing anxiety, and promoting social connectedness. Additionally, inclusive classrooms were found to encourage empathy, cooperation, and mutual respect among peers. However, the study also highlights challenges such as inadequate teacher training and limited institutional resources, which may hinder effective implementation.

The study concludes that inclusive education is a powerful tool for promoting psychological well-being and holistic student development. It recommends strengthening teacher training programs and adopting supportive policies to ensure meaningful inclusion. Future research should examine long-term psychological outcomes and cross-cultural variations in inclusive educational practices.

Keywords: Inclusive Education, Student Well-being, Psychological Development, Equity in Education, Mental Health, Classroom Environment.

The Distinguished Role of Sudha Murty in Contemporary English Literature

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ABSTRACT

In India and across the globe, literature and language are crucial to long-term prosperity. One of the watershed moments in the evolution of Indian literature is Sudha Murthy's work in modern English literature. In this era of rapid technological advancement, the English language has taken centre stage, with all of India's regional languages having strong ties to it. The languages have been more prominent in various regions since 1960. The progress of India and the rest of the globe is closely tied to the language, particularly English. Many contemporary tenets—including literature, science, education, technology, and politics—owe a great deal to the contributions made possible by the English language. Sudha Murthy has made significant contributions to contemporary English literature via her work. Education, religious duties, culture, family, society, economics, feminism, etc. are all themes that run throughout Sudha Murthy's work. Sudha Murthy delves into every facet of society in her writing, which serves as a reflection of society at large. Her works vividly portray Indian women in several spheres, including politics, society, education, architecture, administration, and the home. The works of the outstanding Indian novelist, social worker, technologist, and educator Dr. Sudha Murthy—novels, short tales, novellas, and travelogues—contribute to the canon of English literature in India. Sudha Murthy's contributions to literature in both English and Kannada are a result of her keen observations, personal experiences, travels, and imaginative thinking. Her writing is straightforward and easy to understand, allowing her thoughts to flow effortlessly. Feminism is something she strongly supports, and she gives her female characters the ability to do terrible things. Sudha Murty has had a substantial impact on modern Indian writing, and this study examines her work in detail, paying special attention to the way she skilfully combines mythology with modernity.

Keywords: Sudha Murty, Literature, Theme, characterization, Feminist, Children literature