**S.U.S. GOVT. COLLEGE, MATAK - MAJRI, INDRI, KARNAL (HARYANA)**

**ONE DAY INTERNATIONAL CONFERENCE**

**On**

**IMPORTANCE OF EDUCATION TO DEVELOP SCIENTIFIC TEMPER**

 **FRIDAY, MARCH 22, 2024**

**Sponsored By**

**DGHE, Panchkula**

**Organized By**

**DEPARTMENT OF CHEMISTRY**

**REPORT ON ONE DAY INTERNATIONAL CONFERENCE**

**FRIDAY, MARCH 22, 2024**

The international conference on the "Role of Education in Developing Scientific Temper" convened scholars, researchers, and educators to explore the nexus between education and scientific inquiry. Sponsored by DGHE Panchkula, Haryana, and organized by the Department of Chemistry, the conference on 22nd March 2024 facilitated discussions on fostering critical inquiry and evidence-based thinking in educational frameworks. Through various technical sessions, paper presentations, and insightful discussions, the conference underscored the imperative of fostering scientific temper as a catalyst for societal progress. Distinguished speakers elucidated how education empowers individuals to think critically, question assumptions, and seek evidence-based solutions to complex problems. Topics ranged from the significance of scientific literacy in addressing contemporary challenges to the role of education in nurturing a culture of curiosity and rationality. Parallel paper presentations showcased diverse research endeavors, highlighting the interdisciplinary nature of scientific inquiry. The valedictory session culminated in reflections on the transformative power of education in cultivating scientific temper and fostering an enlightened and progressive society.

**Inaugural Session**

The inaugural session of the international conference on the "Role of Education to Develop Scientific Temper" held significant promise as it delved into the pivotal role education plays in nurturing scientific temper across various domains. Sponsored by DGHE Panchkula, Haryana, and organized by the Department of Chemistry, the conference convened on 22nd March 2024, ushering in a discourse that resonated with the ethos of critical inquiry and evidence-based thinking.

The ceremonious inauguration commenced with the dignified presence of esteemed guests, including the Honourable Chief Guest, Sh. Dharamvir, IAS (Retd.), Former Chief Secretary Govt. of Haryana. Dr. Deepa Sharma, Assistant Professor of Physics, the conference coordinator, extended a formal introduction, setting the stage for an intellectually stimulating exchange. Symbolizing the enlightenment of knowledge, the lighting of lamps by the Chief Guest marked the commencement of proceedings, infusing the atmosphere with a sense of reverence and scholarly pursuit.

Mr. Vikas Atri, the principal of the college, extended a warm welcome, underscoring the significance of the conference's theme in the contemporary educational landscape. The Presidential Address by Sh. Dharamvir, IAS (Retd.) encapsulated the essence of the conference, emphasizing the imperative need to foster scientific temper in educational frameworks to navigate the intricacies of the modern world effectively.

Dr. Gulab Singh, Assistant Professor of Chemistry, the conference convenor, articulated the objectives and scope of the conference, elucidating how it aimed to delve into the multifaceted dimensions of scientific temper and its symbiotic relationship with education. A gesture of appreciation followed as Mr. Vikas Atri felicitated the distinguished guests and the assembled gathering, fostering an atmosphere of camaraderie and intellectual exchange.

The Inaugural Address by the Guest of Honor, Dr. Keya, Professor of Physics (Retd.), Panjab University, Chandigarh, served as a beacon illuminating the role of education in nurturing scientific temper across diverse disciplines. Dr. Keya underscored how educational institutions serve as crucibles for the dissemination of scientific knowledge, fostering critical thinking and empirical methodologies essential for holistic development.

Subsequently, the keynote address by Prof (Dr.) B. K. Punia, Former Vice-Chancellor, M. D. University, Rohtak and presently working as Professor of Business Management, GJU-S&T, Hisar delved into the foundational significance of scientific temper in societal progress. Prof. Punia eloquently articulated how education serves as the bedrock for cultivating a mindset characterized by critical inquiry and evidence-based reasoning. Through a comprehensive literature review, he underscored the symbiotic relationship between education and the development of scientific temper, highlighting its indispensable role in navigating the complexities of the contemporary world.

The release of the souvenir served as a commemoration of the scholarly endeavors undertaken during the conference, encapsulating the collective wisdom and insights shared by the esteemed speakers and participants. The felicitation ceremony further exemplified the spirit of gratitude and appreciation, acknowledging the contributions of all stakeholders in enriching the discourse on scientific temper and education.

Dr. Suresh Kumar, Assistant Professor of Chemistry, the convenor of the conference, concluded the inaugural session with a heartfelt vote of thanks, expressing gratitude to all participants, organizers, sponsors, and patrons for their unwavering support and commitment towards advancing the cause of scientific temper through education. As the inaugural session drew to a close, it left an indelible imprint, setting the stage for thought-provoking deliberations and transformative insights that promised to shape the contours of educational discourse for generations to come.

In essence, the inaugural session of the international conference served as a poignant reminder of the transformative power of education in nurturing scientific temper, underscoring its indispensable role in fostering a society characterized by critical inquiry, empirical reasoning, and a relentless pursuit of knowledge.

**Technical session I**

The commencement of the technical session at the international conference on the "Role of Education in Developing Scientific Temper" marked a pivotal juncture in delving deeper into the thematic discourse. Dr. Anita Joon, Principal of Maharishi Dayanand Govt. College for Girls, Dadupur Roran, assumed the role of chairperson, setting the stage for an intellectually stimulating exchange. Introduced by the stage coordinator, Mr. Sumit Goel (Assistant Professor of Mathematics, the Organising Secretary), Dr. Joon's presence infused the atmosphere with anticipation for a compelling discussion on the conference theme.

Dr. Joon, in her capacity as chairperson, introduced the esteemed Resource Person, Prof. (Dr.) Sudhir Kumar (Retd) from the Department of Molecular Biology, Biotechnology, and Bio-informatics, CCS HAU, Hisar. Dr. Kumar's distinguished lecture resonated profoundly with the conference theme as he delved into the crux of "The Significance of Education in Cultivating Scientific Temper."

Throughout his lecture, Dr. Sudhir Kumar articulated the pivotal role of education in nurturing scientific temper, emphasizing its transformative impact on individuals and societies. He underscored how education serves as a fundamental catalyst in empowering individuals to critically engage with the world, contribute to scientific progress, and tackle global challenges. Through fostering critical thinking, ethical awareness, and innovation, education lays the groundwork for a society rooted in rationality, empiricism, and an unwavering commitment to the scientific method.

Dr. Kumar's insights shed light on the multifaceted dimensions of scientific temper, elucidating how education serves as a conduit for instilling a deep-seated appreciation for evidence-based reasoning and empirical inquiry. His lecture not only underscored the intrinsic link between education and scientific temper but also underscored its profound implications for societal advancement and progress.

In recognition of Dr. Anita Joon's invaluable contributions as chairperson, she was presented with a token of appreciation by the Principal, Vice Principal, Coordinator, and Member of the Council. This gesture symbolized the collective gratitude for her stewardship in orchestrating a thought-provoking session that epitomized the conference's overarching theme.

In essence, the first technical session encapsulated the symbiotic relationship between education and scientific temper, underscoring their transformative potential in shaping individuals and societies. Dr. Sudhir Kumar's erudite discourse served as a beacon guiding participants towards a deeper understanding of the intrinsic link between education, scientific temper, and societal progress.

**Technical session II**

(Visionary Talk) In the second technical session of the international conference focusing on the "Role of Education in Developing Scientific Temper," the stage coordinator, Mr. Sumit Goel, (Assistant Professor of Mathematics, the Organising Secretary) introduced Prof. (Dr.) Sudhir Kumar (Retd) from the Department of Molecular Biology, Biotechnology, and Bio-informatics, CCS HAU, Hisar, as the Session Moderator. Prof. Kumar, in turn, introduced the resource person for the session, Dr. Jayant Sindhu from the Department of Chemistry, CCS HAU, Hisar. The session centered around the thought-provoking topic, "Asking why? Zero cost strategy to Nurture Scientific Temper."

During his distinguished lecture, Dr. Jayant Sindhu delved into the essence of fostering scientific temper, drawing upon insightful quotes and wisdom. He referenced the words of Dr. Narendra Dabholkar, highlighting the correlation between evidence and believability. Dr. Sindhu emphasized the significance of evidence-based reasoning, suggesting that the credibility of any assertion increases with the accumulation of evidence. Furthermore, he stressed the importance of understanding religion through its underlying philosophy rather than merely adhering to rituals. This approach, he argued, is essential in cultivating a holistic understanding of religious and cultural practices, fostering a mindset grounded in rational inquiry and critical thinking.

Following the lecture, an interactive session ensued, allowing participants to pose queries and engage in discussions. This segment facilitated a deeper exploration of the themes addressed in Dr. Sindhu's lecture, encouraging attendees to reflect on the implications of nurturing scientific temper within educational frameworks.

Overall, the second technical session served as a platform for insightful discourse on the intrinsic link between education, scientific temper, and critical inquiry. Prof. Sudhir Kumar's erudite insights, coupled with Dr. Jayant Sindhu's contributions, enriched the dialogue surrounding the conference theme. By emphasizing the importance of evidence-based reasoning and philosophical inquiry, the session underscored the transformative potential of education in fostering a society grounded in rationality, empiricism, and a profound appreciation for the scientific method.

**Technical session III**

(Visionary Talk) In the third technical session of the international conference focusing on the "Role of Education in Developing Scientific Temper," Prof. (Dr.) Pardeep Kumar from the Department of Computer Science and Application, Kurukshetra University Kurukshetra, assumed the role of Session Moderator. Prof. Kumar introduced Dr. Manmeet Rawat, Assistant Professor in the Department of Medicine at Penn State University, Pennsylvania, USA, as the resource person for the session.

Dr. Rawat's insightful lecture illuminated the profound impact of a scientific outlook on individuals and societies. He underscored how individuals equipped with scientific temper are better positioned to make informed decisions, foster innovation, and contribute to societal progress. Moreover, Dr. Rawat emphasized the role of scientific temper in debunking superstitions and pseudoscience prevalent in many societies, thereby promoting rationality and evidence-based reasoning.

The session transitioned into a panel discussion, providing a platform for participants to engage in dialogue and exchange perspectives on the themes addressed in Dr. Rawat's lecture. This interactive segment facilitated a deeper exploration of the importance of nurturing scientific temper within educational frameworks and its implications for societal advancement.

Following the panel discussion, a segment for queries and discussions allowed attendees to pose questions and share insights, further enriching the discourse surrounding the conference theme. Dr. Ramesh Kumar coordinated the stage, ensuring the smooth flow of proceedings and fostering an atmosphere conducive to intellectual exchange.

As the session drew to a close, the stage coordinator of the conference expressed gratitude to all participants, organizers, and contributors for their invaluable contributions towards advancing the dialogue on scientific temper through education. This gesture of thanks underscored the collective commitment to fostering a culture of critical inquiry, empirical reasoning, and scientific literacy within educational paradigms.

In essence, the third technical session served as a forum for profound reflection on the transformative power of education in cultivating scientific temper. Dr. Manmeet Rawat's illuminating insights, coupled with the active engagement of participants, underscored the imperative of promoting scientific literacy as a cornerstone of societal progress and enlightenment.

**Technical session IV**

(Visionary Talk) In the fourth technical session of the international conference centered on the "Role of Education in Developing Scientific Temper," Prof. (Dr.) Neena Jaggi, Chairperson of the Department of Physics at NIT, Kurukshetra, assumed a pivotal role. Prof. Jaggi introduced Dr. Brij Mohan, Associate Professor at Centro de Química Estrutural, Institute of Molecular Sciences, Instituto Superior Técnico, Universidade de Lisboa, Portugal, and School of Science, Harbin Institute of Technology (Shenzhen), China, as the distinguished Resource Person for the session.

Dr. Brij Mohan's address underscored the paramount importance of education in nurturing scientific temper, a cornerstone for societal progress and advancement. He elucidated how scientific temper empowers individuals to think critically, challenge assumptions, and seek evidence-based solutions to complex problems. Dr. Mohan emphasized that cultivating scientific temper fosters a mindset characterized by curiosity, openness, and rationality, qualities essential for innovation and growth across various domains, including technology, medicine, and engineering.

Throughout his discourse, Dr. Mohan highlighted the transformative potential of scientific literacy in shaping the trajectory of society. By fostering an environment conducive to critical inquiry and empirical reasoning, education serves as a catalyst for societal development, enabling individuals to navigate the complexities of the modern world effectively.

The coordination of the stage was expertly managed by Dr. Deepa (Assistant Professor of Physics), the Conference Coordinator, ensuring the seamless flow of proceedings and facilitating an atmosphere conducive to intellectual exchange and engagement. Through her efforts, participants were afforded the opportunity to delve deeper into the themes addressed during the session, fostering a deeper understanding of the intricate relationship between education and the cultivation of scientific temper.

In essence, the fourth technical session served as a platform for profound reflection on the pivotal role of education in fostering scientific temper. Dr. Brij Mohan's insights, coupled with the effective coordination by Prof. Jaggi, underscored the imperative of promoting scientific literacy as a catalyst for societal progress and enlightenment. As participants departed the session, they carried with them a renewed commitment to advancing the cause of scientific temper through education, thereby contributing to the collective pursuit of knowledge and innovation.

**Technical session V**

In the fifth technical session of the international conference, dedicated to exploring the "Role of Education in Developing Scientific Temper," Prof. (Dr.) Neera Raghav, from the Department of Chemistry at Kurukshetra University, Kurukshetra, Haryana, assumed the role of Chairperson. Under her guidance, the session delved into pertinent discussions surrounding the theme, further emphasizing the significance of scientific literacy in contemporary society. She introduced Dr. Vikas Maishi, Associate Professor of Microbiology at the International Medical School (IMS) of the University of International Business, Almaty, Kazakhstan, as the distinguished Resource Person for the session.

In his Invited Talk, Dr. Vikas Maishi addressed the audience on the topic "Role of Microbiology in Pest Control and Health Sector: An Innovative Strategy." Dr. Maishi's discourse shed light on the pivotal role of microbiology in addressing challenges related to pest control and public health. Through innovative strategies rooted in microbiological principles, he elucidated how scientific advancements could be leveraged to mitigate the adverse effects of pests and bolster healthcare initiatives.

Following the enlightening presentation, a segment for Queries and Discussions provided attendees with the opportunity to engage with Dr. Maishi, further exploring the intricacies of microbiological applications in pest control and healthcare. This interactive exchange facilitated a deeper understanding of the topic and encouraged participants to reflect on the implications of integrating scientific knowledge into practical solutions.

The fifth technical session exemplified the transformative potential of education in fostering scientific temper, as demonstrated by the insightful discussions led by Prof. Neera Raghav. Dr. Vikas Maishi's expertise in microbiology underscored the interdisciplinary nature of scientific inquiry and its profound impact on addressing real-world challenges.

In essence, the session served as a testament to the importance of scientific literacy in driving innovation and progress, particularly in fields as diverse as microbiology, pest control, and healthcare. As participants departed the session, they carried with them a renewed appreciation for the role of education in nurturing scientific temper and advancing the frontiers of knowledge for the betterment of society.

**The Technical Session VI: Paper Presentations**

In the sixth technical session of the international conference, parallel paper presentations served as a platform for scholarly exchange, both online and offline, across nine different venues. With approximately 363 participants, including delegates, research scholars, and postgraduate students from various colleges and universities, these sessions encapsulated the diverse perspectives and research endeavors within the realm of scientific temper and education.

Dr. Ashwani Vihana from the Department of Chemistry at KUK, Dr. Rekha Gaba from DAV University, Prof. Ramesh Ghanghas from the Department of Chemistry at KUK, Dr. Devender Singh from Dayal Singh College, Karnal, Dr. Naveen Gupta from LPU, Jalandhar, Dr. Deepak Wadhwa from the Department of Chemistry at CBLU, Dr. Anil Kumari from SUD GC Matak Majri, Dr. Surender Singh from SUSGC Matak Majri, Dr. Ranbir Singh from SUS GC Matak Majri, and Dr. Parveen Kumar Jangra from the Department of Chemistry at KUK, alongside Dr. Raj Kamal from the Department of Chemistry at KUK, collectively moderated these sessions.

Throughout the presentations, a myriad of topics related to scientific temper and its nexus with education were explored and dissected. From empirical studies to theoretical frameworks, participants delved into various dimensions, shedding light on the importance of nurturing scientific curiosity, critical thinking, and evidence-based reasoning within educational contexts.

The diverse array of moderators ensured a multifaceted approach to the discourse, fostering an environment conducive to scholarly exchange and intellectual growth. As participants shared their research findings and engaged in discussions, the sessions served as a testament to the transformative potential of education in cultivating scientific temper and fostering a culture of inquiry and innovation.

In essence, the sixth technical session exemplified the collaborative spirit of academia, wherein scholars from diverse backgrounds converged to enrich the discourse surrounding scientific temper and education. Through rigorous inquiry and scholarly exchange, participants collectively contributed to advancing the frontiers of knowledge, thereby reaffirming the integral role of education in shaping enlightened and progressive societies.

**The Valedictory Session**

The culmination of the one-day international conference was marked by a ceremonious valedictory session, characterized by reflections on the pivotal role of education in fostering scientific temper and addressing contemporary challenges. The session commenced with the dignified presence of the Honorable Chief Guest and esteemed dignitaries, setting the stage for a momentous conclusion to the academic discourse.

Dr. Deepa Sharma extended a warm welcome to the assembled guests and participants, underscoring the significance of their contributions to the conference. This was followed by the valedictorian speech delivered by the Honorable Chief Guest, Shri Sunil Jaglan, from New Delhi. In his address, Shri Jaglan eloquently emphasized the transformative power of education in cultivating scientific temper, a quality indispensable for navigating the complexities of the modern world. He underscored the imperative of fostering a society characterized by critical thinking, empirical reasoning, and a deep-seated commitment to the scientific method. Shri Jaglan's words resonated deeply, serving as a call to action for all stakeholders to prioritize scientific literacy as a catalyst for societal progress and enlightenment.

Following the valedictorian speech, a felicitation ceremony was conducted to express gratitude to the distinguished guests, speakers, and organizers for their invaluable contributions to the conference. This segment provided an opportunity to honor and acknowledge the collective efforts that had culminated in a successful and enriching academic endeavor.

Feedback from the participants was then solicited, providing valuable insights into the efficacy of the conference in achieving its objectives and addressing the needs of the academic community. This feedback would serve as a guide for future endeavors, ensuring continuous improvement and refinement in the pursuit of knowledge and scholarship.

A detailed conference report, meticulously prepared by Dr. Suresh Kumar, the Convener of the conference, was then presented, encapsulating the key highlights, insights, and outcomes of the deliberations that had transpired throughout the day. This report served as a testament to the depth and breadth of the scholarly discourse that had unfolded, reaffirming the conference's significance as a platform for intellectual exchange and collaboration.

Sh. Vikas Atri, the Principal of the college, delivered closing remarks, expressing gratitude to all participants for their active engagement and contributions to the conference. His words of appreciation underscored the collective commitment to advancing the cause of scientific temper through education, thereby laying the groundwork for a more enlightened and progressive society.

Finally, Dr. Gulab Singh, the Convener of the conference, formally extended a vote of thanks, expressing heartfelt appreciation to all attendees for their unwavering support and participation. He emphasized the profound impact of their collective efforts in creating an immersive academic experience, reiterating the importance of collaboration and shared vision in driving meaningful change and progress.

In essence, the valedictory session served as a fitting conclusion to the international conference, encapsulating the spirit of inquiry, collaboration, and commitment to excellence that had characterized the day's proceedings. As participants dispersed, they carried with them a renewed sense of purpose and determination to champion the cause of scientific temper and education, thereby contributing to the collective advancement of society and human knowledge.

**Conclusion**

The international conference on the "Importance of Education to Develop Scientific Temper" provided a platform for profound reflections and scholarly exchanges on the transformative potential of education in shaping enlightened societies. Through insightful discussions, lectures, and paper presentations, participants reaffirmed the pivotal role of education in fostering critical thinking, empirical reasoning, and a deep-seated commitment to the scientific method. The conference highlighted the multifaceted dimensions of scientific temper, emphasizing its significance in addressing contemporary challenges and advancing human knowledge. As the conference concluded, participants departed with a renewed sense of purpose and determination to prioritize scientific literacy in educational frameworks. The collective efforts of scholars, researchers, and educators underscored the importance of collaboration and shared vision in driving meaningful change and progress. Moving forward, it is imperative to sustain the momentum generated by the conference, fostering continued dialogue and collaboration to promote scientific temper as a cornerstone of societal advancement and enlightenment.