

**Two days National Seminar
At
Indian Institute of Advanced Study, Shimla**

on

**Indian Knowledge Systems and Artificial Intelligence: Integrating Indigenous Wisdom
with Emerging Technologies
(29 to 30 October 2026)**

Theme-note

India today stands at a defining civilizational crossroads where ancient systems of knowledge intersect with one of the most transformative technologies of the contemporary world, Artificial Intelligence (AI). As AI rapidly reshapes education, governance, healthcare, agriculture, environmental management, culture, and public services, the challenge before society is not merely technological adaptation but ethical and cultural alignment. The future of AI cannot be guided by automation and efficiency alone; it must also be shaped by responsibility, social inclusion, cultural rootedness, and ecological balance. The integration of Indian Knowledge Systems (IKS) with AI offers a uniquely Indian pathway to build technologies that are not only powerful and innovative but also humane, sustainable, and socially responsive.

Indian Knowledge Systems represent a vast and diverse intellectual inheritance encompassing philosophy, ethics, linguistics, health sciences such as Ayurveda and Yoga, environmental knowledge, arts, culture, crafts, and community-based practices. These traditions are grounded in holistic worldviews that emphasise harmony between the individual, society, and nature. Foundational values such as **dharmā** (ethical responsibility), **ahimsa** (non-harm), balance, inclusivity, dialogue, and collective well-being form the moral spine of IKS. When these principles intersect with the computational power, speed, and data-processing capacities of AI, they create the possibility of a distinctly Indian model of technological development—one that is ethically grounded, socially inclusive, and culturally meaningful.

One of the most pressing global challenges in the age of AI is ethical considerations. Concerns regarding algorithmic bias, data exploitation, opaque decision-making, surveillance, and exclusion increasingly dominate public discourse. While Western ethical and legal models have largely shaped global AI governance so far, Indian philosophical traditions offer equally rich and contextually relevant moral frameworks. Systems such as Vedānta, Buddhism, Jainism, Nyāya, and Sāṃkhya foreground fairness, moral restraint, accountability, and social welfare. The principle of **dharmā** emphasises duty toward collective harmony rather than individual profit alone. **Ahimsa** provides a powerful moral lens for minimising harm arising from algorithmic decisions, while *lokasaṅgraha*, or the welfare of the many, prioritises public good over narrow commercial interests. Together, these principles offer critical resources for shaping transparent, accountable, and community-centred AI systems.

India's linguistic diversity presents both a profound cultural strength and a significant technological challenge. With hundreds of languages and thousands of dialects, large sections of the population remain digitally marginalised due to language barriers. Traditional Indian linguistic scholarship ranging from Paninian grammar to phonetics, semantics, and oral traditions offers deep theoretical insights into the nature of sound, meaning, and interpretation.

AI-driven language technologies such as speech recognition, machine translation, text-to-speech systems, and conversational interfaces can draw significantly from this indigenous linguistic heritage. At the same time, AI offers unprecedented tools for the preservation, digitisation, and revitalisation of endangered languages and oral traditions. Digital archives, speech corpora, and language-learning platforms can strengthen inclusion and democratise access to knowledge in multilingual contexts.

The convergence of Ayurveda, Yoga, and AI opens new possibilities for holistic health and well-being. India's traditional health systems are globally recognised for their integrative understanding of the human body, mind, and environment. Unlike symptom-centred biomedical models, these systems emphasise balance, prevention, personalised care, and lifestyle regulation. AI-driven health analytics, wearable technologies, and personalised wellness platforms have the potential to support dosha-based profiling, preventive diagnostics, yoga posture correction, breathing analysis, and mental health interventions. The digitisation of classical medical texts and yoga manuals further ensures the broader dissemination of traditional knowledge. At the same time, the ethical integration of AI into healthcare reinforces the importance of preserving the human-centred, experiential foundations of healing.

Indigenous environmental knowledge constitutes another critical dimension of India's knowledge heritage. Traditional ecological practices relating to agriculture, water systems, forest management, biodiversity conservation, and disaster resilience embody sustainable modes of living rooted in coexistence with nature. In the context of accelerating climate change, these practices hold renewed relevance. AI technologies such as predictive analytics, satellite imaging, climate modelling, and smart sensors can work in synergy with indigenous knowledge systems to strengthen climate action, sustainable agriculture, water governance, and disaster preparedness. When community wisdom is integrated with machine intelligence, it enables a hybrid environmental governance model that is both technologically robust and ethically grounded.

India's artistic and cultural heritage, encompassing classical music and dance, folk traditions, crafts, manuscripts, storytelling practices, and archaeological sites, represents a living archive of civilizational memory. Yet much of this heritage remains fragile and under-documented. AI enables powerful tools for digital archiving, restoration, virtual reconstruction, automated transcription, intelligent search, and immersive cultural storytelling. These technologies can transform how culture is preserved, taught, and accessed, particularly for younger generations. However, the use of AI in cultural domains also raises significant ethical concerns related to authenticity, misrepresentation, cultural appropriation, and erasure. Ensuring cultural sensitivity, community participation, and ethical stewardship is therefore essential when deploying AI for heritage preservation.

For the integration of IKS and AI to be meaningful and sustainable, it must be embedded within education systems, public policy frameworks, and institutional capacity-building mechanisms. There is a growing need for interdisciplinary curricula that combine culture, ethics, and technology; ethical AI policies rooted in Indian philosophical contexts; digital public goods developed from indigenous datasets; and large-scale skilling programmes for students, educators, administrators, and professionals. Such institutional integration will ensure that the convergence of IKS and AI does not remain confined to conceptual discourse but translates into long-term educational, research, and governance practices.

This thematic vision is closely aligned with the objectives of the National Education Policy (NEP) 2020, which advocates the integration of Indian Knowledge Systems into mainstream education, promotes multidisciplinary learning, emphasises ethical technology use, supports Indian languages, encourages holistic health practices, and seeks to preserve India's cultural heritage through digital innovation. By fostering interdisciplinary engagement across philosophy, linguistics, health sciences, environmental studies, humanities, and computer science, the thematic framework directly supports NEP's goal of building future-ready learners rooted in cultural consciousness.

The theme also aligns strongly with several United Nations Sustainable Development Goals (SDGs). It contributes to Good Health and Well-Being (SDG 3) through AI-enhanced wellness and preventive healthcare models; Quality Education (SDG 4) through culturally grounded, interdisciplinary learning; Industry, Innovation and Infrastructure (SDG 9) through ethical and inclusive technological development; Reduced Inequalities (SDG 10) through language technologies and community knowledge systems; Sustainable Cities and Communities (SDG 11) through digital heritage preservation; Climate Action (SDG 13) through the integration of traditional ecological wisdom with AI; Peace, Justice and Strong Institutions (SDG 16) through transparent and accountable AI governance; and Partnerships for Goals (SDG 17) through collaboration among academia, communities, industry, and policymakers.

The convergence of Indian Knowledge Systems and Artificial Intelligence thus represents not merely a technological shift but a profound civilizational opportunity. While AI brings speed, automation, scale, and precision, Indian Knowledge Systems offer ethical depth, cultural continuity, ecological balance, and human-centred values. Together, they have the potential to shape a future in which technology serves society rather than dominates it. By integrating ancient wisdom with emerging technologies, India can chart a development trajectory that is digitally advanced yet culturally anchored, socially inclusive, environmentally responsible, and globally relevant.

4. Aims and objectives

Aims of the Seminar

1. To critically explore the convergence of Indian Knowledge Systems and Artificial Intelligence as a culturally grounded, ethical, and socially responsive model of technological development.
2. To examine how indigenous philosophical, linguistic, health, environmental, and cultural traditions can inform the design, governance, and application of ethical and inclusive AI systems.
3. To create an interdisciplinary intellectual platform that integrates civilizational wisdom with contemporary technological innovation for sustainable national development.
4. To contribute to national discourse on responsible AI by foregrounding Indian epistemological, ethical, and cultural frameworks.

Objectives of the Seminar

1. To analyse ethical challenges in Artificial Intelligence such as bias, surveillance, data exploitation, and opacity through the moral frameworks of Indian philosophical traditions, including dharma, ahimsa, lokasangraha, and viveka.
2. To explore the role of Indian linguistic traditions in strengthening AI-driven language technologies for inclusivity, accessibility, and preservation of linguistic diversity.
3. To examine the integration of Ayurveda, Yoga, and AI for developing holistic, preventive, and personalised models of health and well-being.
4. To study the synergistic application of indigenous environmental knowledge and AI for climate action, sustainable agriculture, resource management, and disaster resilience.
5. To evaluate the role of AI in the documentation, digitisation, and preservation of India's arts, crafts, manuscripts, oral traditions, and cultural heritage with due ethical sensitivity.
6. To identify pathways for embedding Indian Knowledge Systems and AI within interdisciplinary curricula, institutional policies, digital public goods, and capacity-building frameworks.
7. To align the integration of IKS and AI with the goals of the National Education Policy (NEP) 2020 and the United Nations Sustainable Development Goals (SDGs).
8. To encourage collaboration among academia, policymakers, technologists, cultural practitioners, and community stakeholders for long-term innovation and governance.
9. To foster critical awareness among students, researchers, and professionals regarding culturally rooted, ethically accountable, and socially inclusive AI futures.
10. To develop a shared vision for an Indian model of Artificial Intelligence that balances technological advancement with human values, social justice, and ecological sustainability.

5. Significance of the seminar-How it will create new knowledge or contribute to the discipline

The seminar is significant at a time when Artificial Intelligence is transforming every sphere of life, including education, governance, healthcare, the environment, and culture. Yet a coherent ethical and culturally grounded framework to guide AI development remains urgently needed. By foregrounding Indian Knowledge Systems (IKS), the seminar offers a distinctly Indian civilizational approach to AI, integrating dharma, ahimsa, collective well-being, linguistic diversity, and ecological balance into technological innovation. This positions India to move beyond imported ethical models and articulate its own vision of responsible, inclusive, and human-centred AI.

The seminar also contributes meaningfully to national priorities, especially the National Education Policy (NEP 2020), which advocates multidisciplinary learning, the integration of traditional knowledge, and the ethical use of technology. By bringing together perspectives from philosophy, linguistics, health sciences, environmental studies, cultural heritage, and computer science, it strengthens India's capacity to design education and policy frameworks that are future-ready yet rooted in cultural consciousness. The emphasis on Indian languages,

indigenous ecological wisdom, and community-based knowledge systems further addresses digital inclusion and supports equitable access to AI-enabled opportunities.

In domains such as health, sustainability, and culture, the seminar highlights how AI can support traditional systems, Ayurveda, Yoga, ecological practices, and artistic heritage through digital preservation, personalised wellness tools, climate monitoring, and immersive cultural documentation. At the same time, it foregrounds the need for ethical safeguards to ensure that AI respects authenticity, community ownership, and artistic dignity. This balanced approach is crucial as India navigates opportunities and risks associated with rapid technological adoption.

Overall, the seminar is significant because it reframes AI not just as a technological tool but as a moral, cultural, and social force that must be shaped through indigenous wisdom. It lays the foundation for a uniquely Indian model of AI that is technologically advanced yet ethically grounded, socially inclusive, environmentally responsible, and aligned with the aspirations of a Viksit Bharat.

Call for Papers

A limited number of scholars of repute are invited for the IIAS Seminar. Those interested in participating should send (preferably by email) an abstract (300 words) of the proposed paper in English along with their C.V. (One page) directly to Convenor Dr. Sumit Narula Email: sumit.narula@bennett.edu.in and copy to the Academic Resource Officer, Indian Institute of Advanced Study, Shimla on his Email seminar@iias.ac.in Tel: 0177-2831385.

The abstract should clearly state the objectives, methodology, and relevance of the proposed paper including 4–6 keywords. The last date for submission of abstracts is **20th October 2026 by 05:00 PM**. The Institute intends to send Invitation letters to participate through virtual mode to selected participants by the 25th October, 2026. It is the policy of the Institute to publish the papers not proceedings of the seminars it organizes. Hence, all invited participants will be expected to submit complete papers (in English), hitherto unpublished and original, with citations in place, along with a reference section, to the Convener and copy to the Academic Resource Officer, Indian Institute of Advanced Study, Shimla– 171005 by **25th October 2026**.

Last date of submission of Abstracts/Bio note = 20th October 2026 by 05:00 PM
Last date of Submission of Full Paper = 25th October 2026

Guidelines for submission

Font- Times New Roman

Font Size- 12

Paragraph spacing- 1.5

Bibliographical References

- Bibliographical references should be in a consistent style. For detailed instructions we refer to either of the following 3 books: *The Chicago Manual of Style*, *Hart's Rules*, or *Butcher's Copy-editing*. Please cross-check references to see that each reference makes sense and matches the relevant bit in the main text.

Books

- Single Author

Chaudhuri, Amit, *Afternoon Raag*, London: Heinemann, 1993. p72.

Surname, First name, *Title of Book*, Place of Publication: Publisher, (date) and page.

- Multiple Authors

Basu, Tapan, Pradip Datta, Sumit Sarkar, Tanika Sarkar, and Sambuddha Sen, *Khaki Shorts Saffron Flags (Tracts for the Times/1)*, Hyderabad: Orient Longman, 1993 and page.

Surname of first Author, First name of first Author and First name of second Author, Surname of second Author etc., *Title of Book*, Place of Publication: Publisher, (date) and page.

Edited Volume

- Single author

George, K.M. (ed.), *Modern Indian Literature: An Anthology, Plays and Prose*, Delhi: Sahitya Akademi, 1994 and page.

- Multiple authors

Ashcroft, Bill, Gareth Griffiths and Helen Tiffin (eds), *The Empire Writes Back* [1989], London and New York: Routledge, 1995 and page.

Translated Volume

- Kemal, Yasher (trans. from Turkish by Thilda Kemal), *The Wind from the Plain* [1960], London: Harvill Press, 1989 and page.

Paper in Edited Volume

- Single Author and Single Editor

Masselos, J.C., 'The Khojas of Bombay: The Defining of Formal Membership Criteria During the Nineteenth Century', in *Caste and Social Stratification among the Muslims*, Imtiaz Ahmad (ed.), Delhi: Manohar Book Service, 1973.

Surname, First name of Author, 'Title of Paper', in *Title of Book*, First name of Editor Surname of Editor (ed.), Place of Publication: Publisher, (date) and page.

- Single Authors and Multiple Editors

Salomon, C., 'The cosmogonic riddles of Lalan Faqir', in *Gender, Genre and Power in South Asian Expressive Traditions*, A. Appadurai, F. Korom, and M. Mills (eds), Philadelphia: University of Pennsylvania Press, 1991 and page.

Surname of Author, First name of Author, 'Title of Paper', in *Title of Book*, First name of first Editor Surname of first Editor and First name of second Editor Surname of second Editor (eds), Place of Publication: Publisher, (date) and page.

Paper in Journal

- Single Author

Bouiller, V., 'The Nepalese State and Gorakhnathi Yogis: The Case of the Former Kingdoms of Dang Valley, 18th-19th Centuries', *Contribution to Nepalese Studies*, 20 (1), 1993, pp. 29-52.

Surname, first name, 'Title of Paper', *Name of Journal*, Volume number (Issue number), (date), pp. 000-0.

- Multiple Authors

Murty, M. N. and R. Ray, 'A Computational Procedure for Calculating Optimal Commodity Taxes with Illustrative Evidence from Indian Budget Data', *Scandinavian Journal of Economics*, 91(4), 1989, pp.655-70.

Surname of first Author, First name of first Author and First name of second Author
Surname of second Author, 'Title of Paper', *Name of Journal*, Volume number (Issue number), (date), pp. 000-0.

Paper in Edited Journal

- Single author

Gaborieau, Marc, 'Life-Cycle Ceremonies among Converted Muslims in Nepal and Northern India', in Islam in Asia, Yohanan Friedmann (ed.), vol. I, *South Asia*, Jerusalem: Magnes Press, Hebrew University, 1984 and page.

Unpublished Papers/Mimeographs/Discussion Papers/Working Papers

Chander, P. and L. Wide, 'Corruption and Tax Compliance', mimeo, New Delhi: Indian Statistical Institute, 1989.

Surname of first Author, First name of first Author and First name of second Author
Surname of second Author (1991), 'Title of Paper', mimeo, Place: Organization, (date).

Newspaper: Author's Last Name, First Name. "Title of Article." *Name of Newspaper* (City and Province/State of Publication, if not Included in Name), Date of Publication.
<https://doi.org/DOI Number or Name of Database>.

Website/URL:

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- Author Last Name, First Name. "Page Title." *Website Name*, Month Day, Year. URL.
- Example: Schallhorn, Cathlyn. "Chicago." *Britannica*, December 17, 2021.
<https://www.britannica.com/place/Chicago>
- Full Note: First Name Last Name, "Page Title," *Website Name*, Month Day, Year, URL.

- Example: 1. Jack Caulfield, “A Step-by-Step Guide to the Writing Process,” *Scribbr*, April 24, 2020, <https://www.scribbr.com/academic-writing/writing-process/>

If there is no author or date:

- Bibliography: “Title of Page.” *Website Name*, accessed Month Day, Year. URL.
 - Example: “About the UvA.” University of Amsterdam, accessed July 24, 2018. <http://www.uva.nl/en/about-the-uva>
- Full Note: “Title of Page,” *Website Name*, accessed Month Day, Year, URL.
 - Example: 1. “Catholic News Agency,” accessed March 25, 2025, <https://www.catholicnewsagency.com/>

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News sites and blogs

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