



Indian Academy of Sciences

84th ANNUAL MEETING

2–4 November 2018

Swatantrata Bhavan, Banaras Hindu University, Varanasi

SPECIAL LECTURES

GM crops in the Indian context: Looking back, looking forward

IMRAN SIDDIQI

Centre for Cellular and Molecular Biology, Hyderabad

3 November 2018 | 0900–0940



The views on genetic modification technology cover a wide spectrum – from GM being considered essential for increasing agricultural productivity to strong oppositions and questioning of GM approaches on being able to deliver safe and sustainable agriculture that takes the farmer's interests into account. What is becoming increasingly apparent is that the consequences of GM crops are determined not just by the technology itself but the context and modalities of its deployment, including socioeconomic factors and policy environments. GM technologies are rapidly evolving and it is now necessary to distinguish between GM and transgenics. The presentation will cover background information on GM crop technology, a discussion of GM crop usage in the Indian context, and possible future scenarios.



The sciences of the artificial: Promise and reality

VIJAY CHANDRU

Indian Institute of Science, Bengaluru

4 November 2018 | 1200–1240



The natural sciences describe objects in nature, while the sciences of the artificial describe artifacts that come from human intervention in the natural world. This perspective helped the Nobel laureate Herbert Simon pioneer the integration of cognitive, mathematical and computational methods to study artificial complexity and confirm the thesis that a physical symbol system and the computer as an artifact have the necessary means for intelligent action. Ideas of machine intelligence go back to the early postwar period with Alan Turing's famous formulation of the imitation game which became known as the Turing test. Artificial and Augmented Intelligence joined hands with the decision sciences and became an integral part of the data analytics toolbox. Today Artificial Intelligence or AI is synonymous with 'deep learning'. For AI, the departure from the computer as an artifact began in the 90s with the advent of the cloud and great advances in training hardware and software for artificial neural networks. Geoffrey Hinton in Toronto has built this magnificent edifice of deep learning, which has become all pervasive.

ALL ARE WELCOME