



PUNE KNOWLEDGE CLUSTER & INDIAN ACADEMY OF SCIENCES PRESENT INDIA S&T @ 75 LECTURE SERIES

Title: The Indian Monsoon and its Variability

| Organized By | Pune Knowledge Cluster (PKC) |
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| Date | 9th Oct 2021 |
| Time | 11:00 AM - 12: 30 PM |
| Abstract | The monsoon governs the very pulse of life in our country. The monsoon visits us, without fail, year after year, but not always with the same gusto. So, every summer as the heat scorches the landscape around us, scientists, farmers, as well as economists start wondering how the monsoon is going to behave. Over centuries, the monsoon has captured the imagination of the finest minds and great advances in our understanding the meteorology of the tropics and the |
| | monsoon have been made particularly in the last few decades. Yet the problem of forecasting whether the monsoon will be 'normal' as in 2020 or a drought as in 2015 still remains a challenge. What makes the problem of prediction of the monsoon difficult is that the rain-giving clouds and the system that gives us the monsoon rains are all a culmination of instabilities and arise from multi-scale, nonlinear interactions between the land, the tropical atmosphere, and the oceans. Thus, understanding and predicting the vagaries of the monsoon is perhaps the most challenging problem in atmospheric science today. In this lecture, I shall introduce the physics of this fascinating phenomenon, share the present understanding of some facets of monsoon variability, and the challenges |
| | ahead for better predictions. |
| Open to all | It's public talk. Open to all |
| Potential Gains | As a part of the "India S&T @75" events during the countdown to the 75th year of India's independence, the Pune Knowledge Cluster will be organising a number of lectures on scientific topics. These lectures will be delivered by Fellows and Associates of the Indian Academy of Sciences, who are based in Pune, and will be organised in association with the Academy. The lectures will cover a wide variety of topics, ranging from cutting edge science and technology to developments in these areas in the country over the 75 years since independence. |
| Speaker | Prof. Sulochana Gadgil, Fellow, Indian Academy of Sciences |





Profiles of Speaker Brief information about the speaker



Prof. Sulochana Gadgil, one of the world's leading monsoon meteorologists, has made significant contributions to our understanding of the Indian monsoon and its variability, its links with atmospheric convection over tropical oceans and the relationship of such convection with the sea surface temperature. Sulochana Gadgil was trained at Harvard, with a PhD. in Applied Mathematics, a post-doctoral fellow at MIT, and later joined the Indian Institute of Science in 1973. She played a key role in the establishment and nurturing of the Centre for Atmospheric and Oceanic Sciences at the Indian Institute of Science and spearheaded the efforts to formulate the Indian Climate Research Program (ICRP). She is a recipient of several awards including Norman Borlaug Award and Lifetime excellence award in Earth Sciences of 2016 from the Ministry of Earth Sciences 2016.

About the Organizer



The Pune Knowledge Cluster (PKC) has been established by the Office of the Principal Scientific Adviser to the Government of India. It aims is to bring together academia, R&D institutions, and the industry of Pune and its surrounding areas, to address the challenging problems of the region through innovative means, using scientific knowledge and engaging highly skilled human resources.

PKC is administered by the Inter-University Centre for Astronomy and Astrophysics (IUCAA). In the initial phase, PKC would focus on Health, Sustainability and Environment, Sustainable Mobility, BIG Data and AI and Capacity Building

For more information, visit: <u>https://www.pkc.org.in/</u>