

## CITATION

Biological Sciences

Dr Vinod Bhakuni  
Central Drug Research Institute  
Lucknow

Dr Bhakuni has made outstanding contributions to our understanding the role of noncatalytic structural domains and ionic interactions in regulating the functional activity of the catalytic domains in proteins

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## CITATION

Biological Sciences

Dr Rajesh Sudhir Gokhale  
National Institute of Immunology  
New Delhi

Dr Gokhale's work has discovered a new family of long-chain fatty acyl-AMP ligases (FAALs) and has also elegantly elucidated "biochemical crosstalk" between fatty acid synthases and polyketide synthases, which produce diverse unusual lipids of the complex cell wall of *Mycobacterium tuberculosis*. His studies have significantly expanded our understanding of how pathogens evolve their gene products to generate metabolic diversity.

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## CITATION

Chemical Sciences

Dr Srinivasan Sampath  
Indian Institute of Science  
Bangalore

Dr Sampath has made outstanding contributions in developing supercapacitors and nanobimetallics and their novel applications.

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**CITATION**

Chemical Sciences

Dr K George Thomas  
Regional Research Laboratory  
Thiruvananthapuram

Dr Thomas has made significant contributions to photoresponsive nanomaterials and their applications.

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**CITATION**

Earth Sciences

Dr Gufran-Ullah Beig  
Indian Institute of Tropical Meteorology  
Pune

Dr Beig has made significant contributions related to middle and upper atmospheric response to anthropogenic emissions of green house gases. His prediction of mesospheric cooling by 2 to 4k/ decade has serious future implications.

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**CITATION**

Earth Sciences

Dr Pulak Sengupta  
Jadavpur University  
Kolkata

Dr Sengupta has made fundamental contributions to an understanding of grain-scale reaction mechanism and its application to ultra-high temperature regional scale metamorphism

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**CITATION**

Engineering Sciences

Dr Ashish Lele  
National Chemical Laboratory  
Pune

Dr Lele has made pioneering contributions by probing micro and mesostructure of polymeric materials and relating it to the macroscopic dynamical and equilibrium properties using a combination of theory and experiments.

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**CITATION**

Engineering Sciences

Dr Sanjay Mittal  
Indian Institute of Technology  
Kanpur

Dr Mittal has made fundamental contributions to the understanding of flow instabilities in the presence of fluid-structure interactions, specially when structure is flexible and interactions are highly dynamic and unsteady.

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**CITATION**

Mathematical Sciences

Dr Vikraman Balaji  
Chennai Mathematical Institute  
Siruseri

Dr Balaji has made significant contributions to moduli problems of principal bundles over algebraic varieties, in particular on the Uhlenbeck-Yau compactification of the Moduli Spaces of  $\mu$ -semistable bundles. Further his work on holonomy groups for stable bundles on surfaces is significant.

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**CITATION**

Mathematical Sciences

Dr Indranil Biswas  
Tata Institute of Fundamental Research  
Mumbai

Dr Biswas is a very productive mathematician who contributed significantly to algebraic geometry, centering around moduli problems of vector bundles. He is also an acknowledged expert on moduli of parabolic bundles.

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**CITATION**

Medical Sciences

Dr Virender Singh Sangwan  
L V Prasad Eye Institute  
Hyderabad

Dr Sangwan has made outstanding contribution to the application of limbal stem cell biology to restore vision to victims of corneal injury.

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**CITATION**

Physical Sciences

Dr Atish Dabholkar  
Tata Institute of Fundamental Research  
Mumbai

Dr Dabholkar has established how quantum theory modifies the entropy of black holes and for his pioneering studies on supersymmetric solitons in string theory.

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## CITATION

Physical Sciences

Dr Sanjay Puri  
Jawaharlal Nehru University  
New Delhi

Dr Puri has made outstanding contribution to understanding problems in nonequilibrium statistical physics, such as kinetics of phase ordering, including the effects of confined geometries, as well as the role of defects in phase separation dynamics.

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