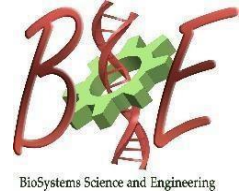




Indian Institute of Science
Centre for BioSystems Science and Engineering

BSSE Seminar



3 August 2020, 11:00 AM, Virtual

Examination of the anti-fragility of microbial system at multiple scale

Speaker: **Dr. Amitesh Anand**

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ABSTRACT:

Billions of years of evolution have enabled high plasticity to microbial physiology which allows the bacterial system to withstand environmental stresses and restore cellular health. This makes the microbial system extremely tenacious; however, this metabolic plasticity is often undermined due to a lack of knowledge of the distal impact of intra- or extra-cellular perturbations. This knowledge gap can be bridged by allowing the cells to adapt under selective pressure for many generations. My research work has focussed on overcoming these limitations to elucidate the adaptive rewiring of bacterial bioenergetics and stress response pathways using systems biology approach. The focus of this talk will be various compensatory mechanisms from the genome to metabolite levels that allows restoration of microbial fitness.