



# Birla Institute of Technology & Science, Pilani

Pilani Campus

Jayendra N Bandyopadhyay, Department of Physics.

16<sup>th</sup> March 2017

## ADVERTISEMENT FOR PROJECT FELLOW/JRF POSITION

Applications are invited for one position of JRF (leading to PhD from BITS Pilani) in a DST-SERB project “Investigating Dynamical and Topological Properties of Floquet Systems: A comparative study of perturbative schemes” at Department of Physics, Birla Institute of Technology and Science, Pilani.

**Project Summary:** Recent studies have established that periodically driven systems can be used to create new interesting phases of matter and synthesize artificial materials which may not be possible any static way. The essential quantity of interest is the effective time-independent Hamiltonian of the driven system which imprints the driving scheme. In absence of exact analytic calculation, we have to use perturbative schemes to obtain the approximate effective Hamiltonian. This project aims to explore merits of different perturbative schemes by studying different physical systems and different measurable quantities.

\* The nature of the project is mostly theoretical. Good knowledge of Quantum Mechanics will be useful. Working knowledge of any programming language will be preferred (C/C++ /Python / Fortran / Matlab).

**Duration of the Project:** 3 Years

**Eligibility Criteria:** M. Sc. in Physics/M.Tech. with at least 60% marks. A candidate with CSIR-NET/GATE/JEST qualification and experience in relevant area will be preferred.

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**Fellowship:** As per DST norms.

**How to apply:** Interested candidates may send application and detailed CV with a cover letter to undersigned on or before 15<sup>th</sup> April 2017.

Jayendra N Bandyopadhyay (Principal Investigator)  
Tapomoy Guha Sarkar (Co- Principal Investigator)

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