

THE INSTITUTE OF MATHEMATICAL SCIENCES

(An autonomous body under Department of Atomic Energy, Government of India)

C I T CAMPUS, THARAMANI, CHENNAI – 600 113, INDIA

Advt No. IMSc/777/2010

The Institute of Mathematical Sciences, Chennai is a national institute for fundamental research in the mathematical and physical sciences. The following project assistant/research associate position is available under the Project for Interdisciplinary Science and Modelling (PRISM) at IMSc.

Minimum qualifications for **Project Assistant** is a BE/BTech/MSc from a reputed institution, and good computational skills, in addition to the specific requirements described below. The consolidated salary attached to this position is **Rs. 12,000/- + HRA @ 30% on consolidated salary.**

Minimum qualifications for **Research Associate** is a PhD from a reputed institution, and good computational skills, in addition to the specific requirements described below. The consolidated salary attached to this position is **Rs. 15,000/- + HRA @ 30% on consolidated salary.**

The position is for one year, with possibility of extension based on mutual satisfaction.

Position 1:

The selected candidate will work on “Agent-based models for infectious diseases”, in collaboration with a team of epidemiologists, public health specialists and modeling experts. Essential skills for this position are a good knowledge and experience of C++ programming skills (Some prior knowledge of Geographical Information Systems (GIS) would be very useful). Finally, prior experience in developing complex simulation codes in a collaborative environment would be a strong positive. Prior knowledge of infectious diseases / the appropriate modeling techniques is not essential.

Position 2:

The selected candidate will work on a project in collaboration with the Ecology, Behaviour and Conservation Group of the National Institute of Advanced Studies (NIAS), Bangalore, on theoretical approaches to understand the network of social interactions in nonhuman primates. This involves (i) using complex network techniques to reconstruct primate social networks from field-observation data, and (ii) developing agent-based models of "strategy"-following individuals to reproduce the observed features of the empirical networks. Such a study will show how primate groups work as a cohesive society, and also shed light on the formation of complex societies with hierarchical organization. The candidate should necessarily have a background (MSc/BE/BTech for PA, PhD for RA) in quantitative/mathematical sciences or engineering, have some experience in using analytical and computational techniques, and have a strong interest in biological systems. Knowledge of MATLAB or equivalent scientific software is desirable but not essential.

Interested candidates are requested to confirm their interest by e-mail to the Institute's Administrative officer, Mr S Vishnu Prasad <svishnu@imsc.res.in> **not later than February 20, 2010**, and report for an examination and interview at the Institute on March 5, 2010. The candidates should report with applications on plain paper, curriculum vitae, originals and copies of all certificates as to proof of age, educational qualifications, experience, and a passport size photograph.

1. The prescribed qualifications are minimum and mere possession of the same does not entitle the candidate to be considered for the advertised position. The decision of the Director of this Institute in all matters will be final and no enquiry or correspondence will be entertained in this matter.

2. Only outstation candidates called for written test and interview will be reimbursed to and from Second Class Railway Fare/Bus Fare by the shortest route from the station of residence/work place to Chennai on production of tickets.

REGISTRAR