



INDIAN INSTITUTE OF TECHNOLOGY DELHI
Hauz Khas, New Delhi – 110016
Industrial Research & Development Unit

No.: IITD/IRD/RP02036/ 6448

Dt.: 27/08/2009

Advertisement No.: IITD/IRD/172/2009

Applications are invited from Indian Citizens for adhoc appointment as per details mentioned below for a maximum period of six months.

Details of the Projects:

1. Energy-efficiency is fundamental in deciding the cost of a network-capable sensor, as in many applications the sensors are battery powered and cannot be replenished once it is drained. Although low-power devices have the power saving features in-built, when a node is operating jointly with the others, the nature of network coordination could make a significant difference in saving its energy. Our aim in this project is to develop a generic model for nodal power consumption in sensor networks, and to investigate various protocol-level enhancements that capture the physical channel and device limitations.
2. Transmit power control is naturally suggested in wireless systems for reduced interference and aiding energy saving. Currently available solutions either do not support the hardware following the current standards, or they do not yet solve the problem of hidden/exposed terminals that exist with the basic ad hoc and sensor network standards without power control. Secondly, the basic controlled-power transmission is yet to be implemented in data transmission protocols of wireless PC cards and sensor nodes. This project will investigate transmit power control protocols and implement power control features in wireless ad hoc and sensor network nodes.

Project extension plans include investigation of wireless physical layer and traffic profile aware efficient access techniques, mesh routing techniques, and data recovery techniques in low data rate sensor networks as well as mobile broadband access networks.

Project Entitled		(1) "Unified cross-layer approach to energy saving measures in wireless sensor networks" (RP02036) (2) "Investigation of Transmit power control and its implementation in wireless ad hoc and sensor nodes" (RP02071)
Name of the Funding Agency		(1) CSIR (2) DST
Posts under (RP02036)	Consolidated pay slabs / Fellowship	Qualifications
(A) Research Associate	Rs.16000-17000-18000/- + 30% HRA	Essential: 1st class M.Tech./M.E. or equivalent with 3 years of research/teaching experience and good academic record
(B) Sr. Research Fellow	Rs.14000/- p.m. + 30% HRA	Essential: 1st class B.E./B.Tech. or equivalent with 2 years experience in Electronics and Communication Engg. / Computer Science and Engg. / related areas with good academic record
(C) Jr. Research Fellow	Rs.12000/- p.m. + 30% HRA	Essential: 1st class B.E./B.Tech. or equivalent in Electronics / Communication Engg. / Computer science and Engg. / related areas with good academic record and with GATE Qualification

Posts under (RP02071)	Consolidated Fellowship	Qualifications
(A) SRF (Professional)	Rs.15000/- p.m. + 30% HRA	Essential: 1st class M.E./M.Tech. or equivalent OR 1st class B.E./B.Tech. or equivalent with 2 years experience in Electronics and Communication Engg. / Computer Science and Engg./related areas with good academic record
(B) Sr. Research Fellow	Rs.14000/- p.m. + 30% HRA	Essential: 1st class B.E./B.Tech. or equivalent in Electronics / Communication Engg./Computer Science and Engg./related areas with 2 years experience and good academic record
Desirable qualifications for all above posts and candidates' interests		
The candidates with equivalent qualifications (MCA/M.Sc and having experience in Communication Systems and Networks may also apply. The selected candidates will be highly encouraged to register for higher degree (Ph.D., MS-research) as per the Institute norms.		

The candidates who fulfill the above qualifications / experience should appear for interview on **02nd September, 2009 at 12:30 p.m. under the Chairmanship of Prof./Dr. B. Bhattacharjee, Civil Engg. at Room No. 218, Block-IV, IIT Delhi.** Kindly bring/submit your formal application through proper channel along with Bio-data with complete information regarding educational qualifications indicating percentage of marks of each examination passed, details of working experience and a recent passport size photograph, along with photocopies certificates (both academic & professional) addressed to the **Assistant Registrar (IRD), IIT Delhi, Hauz Khas, New Delhi – 110016** on the date of interview. The advertisement No., Title of Project and Post applied for must be mentioned on top left side of the application. No candidate already employed at the Institute /IRD shall be interviewed unless his/her application has not been duly forwarded by their concerned establishment sections. 5% relaxation of marks may be granted to the SC/ST Candidates.


(Kalyan Kr. Bhattacharjee)
Asstt. Registrar, IRD

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