



SATHYABAMA UNIVERSITY

(Established under Section 3 of the UGC Act, 1956)

Accredited with B++ Grade by NAAC

(A CHRISTIAN MINORITY INSTITUTION)

Jeppiaar Nagar, Rajiv Gandhi Road, Chennai - 600 119, Tamilnadu, India.



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E-mail: deanresearch@sathyabamauniversity.ac.in Website: www.sathyabamauniversity.ac.in

Ref: Sathyabama/VC/Ph.D/January 2017

Date: 02nd December, 2016

To

Dr. M. Vadivel,
Assistant Professor,
Dept. of ETCE,
Sathyabama University,
Chennai - 600 119.

Sir / Madam,

Sub: Ph.D. Programme Provisional Registration - Orders - Issued

I am directed to inform you that Mr. Robin Abraham is permitted to register provisionally for Ph.D. Programme on Part-Time (External) basis under the Faculty of Electronics Engineering in this University under your guidance with effect from January 2017.

You are requested to convene a Doctoral Committee meeting in the University campus with the following two experts, strictly on or before 17th December, 2016 and submit the Minutes of the Doctoral Committee meeting, prescribing the course work to this office, which will facilitate the candidate to undergo course work at the earliest.

1. Dr. R. Amutha, Professor, Dept. of ECE, SSN College of Engineering, Kalavakkam - 603 110.
2. Dr. N. Prabhakaran, Asst. Professor, Dept. of ETCE, Sathyabama University, Chennai - 600 119.

The research scholar may also be directed to submit the Registration / Enrolment form (form 4 can be downloaded from the University website www.sathyabamauniv.ac.in/phd) and the first semester fee of Rs.10,000/- (Rupees Ten Thousand only) as a demand draft drawn in favour of Sathyabama University payable at Chennai on the day of Doctoral Committee meeting, failing which, it will be construed that the research scholar has not completed the Ph.D admission formalities in full and the provisional registration granted to him / her in this letter is likely to be cancelled.

The Registration Number of the research scholar is 2017192102. In all future correspondence please quote the Registration Number for reference. The Half yearly progress report in the prescribed format commencing from the date of provisional registration, should be obtained by the research scholar duly signed by you at the end of each semester and should be submitted on the day of review meeting conducted in July / January by the candidate.

Yours

Dr. B. Sheela Rani M.S (By Research), Ph.D
Vice Chancellor
Sathyabama University
Jeppiaar Nagar, Rajiv Gandhi Salai,
Chennai-600 119.

B. Sheela Rani
Dr. B. Sheela Rani
Vice Chancellor

Copy to

1. Dr. R. Amutha, Professor, Dept. of ECE, SSN College of Engineering, Kalavakkam - 603 110.
2. Dr. N. Prabhakaran, Asst. Professor, Dept. of ETCE, Sathyabama University, Chennai - 600 119.
3. Head, Dept. of ECE, Sathyabama University, Jeppiaar Nagar, Chennai - 119.
4. Mr. Robin Abraham, Ph.D. Scholar.
5. Candidate file.

* KINDLY ADHERE TO THE FOLLOWING

The date of conducting the DC Meeting should be informed through an official letter duly signed in by the supervisor which should positively reach the Vice Chancellor's office, at least one week before the meeting either by Fax (044-24503646) or by post, failing which the meeting will be cancelled.

The meetings are to be held mostly on week days and under special circumstances during Week Ends (Saturdays only)
Timings: 9.00 AM - 4.00 PM.

It is a first DC Meeting and hence requires completion in a short time period as mentioned in the order issued. Then they have to register for course work which commences from 8th January, 2017 onwards. Course work Registration form 2 (filled in all aspects) to be submitted on or before 4th January, 2017.

Under exceptional circumstances with prior intimation, conduct of First DC meeting will be permitted till 30th June, 2016. If still not conducted then candidates provisional registration will be cancelled and they have to do Re-registration.

Encl: Circular

Vidya Jayanti
PRINCIPAL
Vidya Jayanti Institute of Technology
Himayyasaagar (Vill), C. B. Poad.
Himayyasaagar-73.

An Energy Efficient Hybrid PSO and Fuzzy Logic Based Clustering Head Selection in Wireless Sensor Networks

Abstract:-

A wireless sensor network (WSN) is a wireless network consisting of spatially distributed autonomous devices using sensors to cooperatively monitor physical or environmental conditions such as temperature, sound, vibration, pressure, motion pollutants at different locations. Energy efficiency is a major concern in wireless sensor networks as the sensor nodes are battery-operated devices. In this area several researches have been done from which clustering is one of the most effective solutions. The goal of clustering is to divide network into sections each of which has a cluster head (CH). For energy efficient data transmission, clustering based techniques are implemented through data aggregation so as to balance the energy consumption among the sensor nodes of the network. The existing clustering techniques make use of distinct Low-Energy Adaptive Clustering Hierarchy (LEACH), Harmony Search Algorithm (HSA) and Particle Swarm Optimization (PSO) algorithms.

In this proposal, a hybrid of PSO and fuzzy logic based algorithm is proposed for energy efficient cluster head selection. PSO and fuzzy logic implementation is a simple, effective and computationally efficient optimization algorithm. The main objective of our algorithm is to prolong the lifetime of the WSN by evenly distributing the workload. To achieve this goal, we have mostly focused on selecting proper CHs from existent sensor. The performance of the hybrid algorithm is evaluated using the number of alive nodes, number of dead nodes, throughput and residual energy. This approach is more efficient than other distributed algorithms.

Supervisor

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(M. JADIVEL)

ETCB Dept

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PRINCIPAL

Vidya Jyothi Institute of Technology
Himayatnagar (Vij), C. B. Puri
Hyderabad-75.



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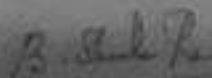
Jepplaar Nagar, Rajiv Gandhi Road, Chennai - 600 119.



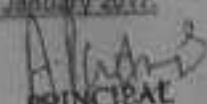
Date: 02-12-2016

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- Before the doctoral committee meeting, Research scholars are requested to visit and discuss with the concerned Head of the departments of Sathyabama University, regarding the subjects (which are related to your field of research) and syllabus which are available in PG Courses (weekend programmes) and submit it to the guide/supervisor. This will be helpful to the supervisor and Doctoral Committee members to decide the course work during the First Doctoral Committee Meeting.
- Doctoral Committee is empowered to allot the subjects to the research scholars both from Sathyabama University and from any other recognized Universities, National institutes, autonomous colleges and various private universities in India.
- All the research scholars are requested to submit their Post Graduate level subjects and syllabus to Doctoral Committee members which will be helpful to them for not repeating the same as a course work subject.
- "Research Methodology Tools and Techniques" is a compulsory regular course work to be taken by every research scholar.
- Only one subject may be prescribed as directed study out of 2 subjects (for M. Phil degree holders) / out of 4 subjects (for all Master degree holders). The syllabus for the direct study subject should be framed and forwarded to Vice Chancellor/Research Incharge for approval by the supervisor. Direct study subject should be taken up as a last subject by the research scholar after getting prior approval from Vice Chancellor/Research Incharge. All the remaining subjects should be allotted only from the Engineering/Technology discipline in PG level.
- The Research scholars are requested to submit form 2 (Application for Course work permission for Research scholars) to Vice Chancellor/Research Incharge to attend the course work classes at Sathyabama University. Last date for submitting the form 2 (Application for Course work permission for Research Scholars) will be 04th January, 2017. At the end of the semester based on the attendance certificate (minimum 80%) from the concerned Head of the Departments to Vice Chancellor/Research Incharge the research scholars will be permitted to attend the examination. A minimum of 80% attendance is compulsory to appear for the examination. In the case of Directed Study, the attendance certificate should be obtained from the Supervisor.
- A Ph.D scholar will have to necessary complete all his/her course work subjects (including Directed Study) within three years from the date of registration of Ph.D, failing which his/she will have to apply for re-registration of Ph.D.
- A candidate cannot appear for a course work subject for a third time if he/she fails to pass in more than two successive attempts.
- Research scholars can log on to <http://sathyabamauniversity.ac.in/phd/login.php> by entering their 10 digit register number and verify their details in website. Any discrepancies can be mailed to deanresearch@sathyabamauniversity.ac.in.
- Visit our website www.sathyabamauniversity.ac.in/phd for regular updates and information
- Note: DC Meetings are not to be conducted from 21st December 2016 - 03rd January 2017.


Dr. B. Sheela Rani
Vice Chancellor

Dr. B. Sheela Rani M.S (By Research), Ph.D
Vice Chancellor
Sathyabama University
Jepplaar Nagar, Rajiv Gandhi Satai,
Chennai-600 119.


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