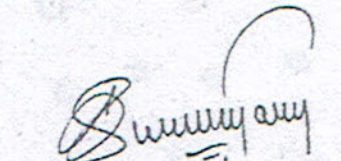# CERTIFICATE

This is to certify that **Ms. Laxmi N. Pawar** has satisfactorily completed the project work towards the **Master of Engineering Degree of Sant Gadge Baba Amravati University, Amravati** in **Electronics and Telecommunication Engineering** discipline on the topic entitled "**Performance Improvisation for Longevity Maximization with Ant Colony Optimization in Wireless Sensor Network** ". This work has been completed under my supervision and guidance.

Dr. A. D. Shelotkar

HOD,EXTC

JCOET ,Yavatmal

Dr. H. M. Baradkar

Project Guide

JCOET ,Yavatmal

Dr. H. M. Baradkar

Principal

JCOET,Yavatmal

Dr.Hemant M. Baradkar
Principal
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Technology,Arni Road,Kinhi,Yavatmal

Abstract

Wireless sensor network (WSN) technologies are increasingly employed in recent years for monitoring purposes in various fields ranging from the engineering industry to our immediate home environments due to their ability to intelligently monitor remote locations at low cost. Maximization of longevity of wireless sensor networks is possible by using effective transmission strategy. An optimal-distance-based transmission strategy based on ant colony optimization is put forward to fulfill such a maximization aim. Clustering mechanism is one of the popular wireless sensor networks routing mechanisms, and it has proven to be an effective approach for organizing the network into a connected hierarchy .In proposed work, we have proposed a algorithm in order to increase the longevity of wireless sensor network . The simulations using MATLAB results shows that the network longevity have improved.

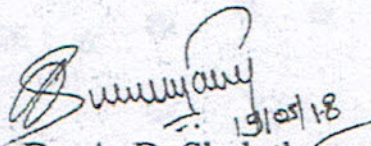Keywords: Longevity maximization, Sensor nodes, Wireless sensor network, Clustering.

Dr.Hemant M. Baraokar
Principal
Jagadambha College of Engineering &
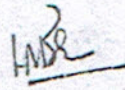Technology,Arni Road,Kinhi,Yavatmal

I

CERTIFICATE

This is to certify that **Ms. Pallavi R. Partani** has satisfactorily completed the project work towards the **Master of Engineering** Degree of Sant Gadge Baba Amravati University, Amravati in **Electronics and Telecommunication Engineering** discipline on the topic entitled "CLASSIFICATION AND FEATURE EXTRACTION OF SONAR IMAGES USING NEURAL NETWORK". This work has been completed under my supervision and guidance.

19/05/18

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ABSTRACT

In many research areas, intelligent recognition and classification systems gained an important role. The reliability and the success of these systems depends on the effectiveness of applied data pre-processing techniques and neural networks which can be used for efficient modelling of human's visual system during the recognition or classification of patterns. Neural networks have an important part in the modelling of human experience and decision making process into computers. In this purposed work, Sonar Image Classification and Recognition System which was developed to simulate human experience in the recognition of underwater shapes by using Back Propagation Learning Algorithm, will be presented, using Multilayer perceptron and Generalized Feed forward network. Experimental results suggest that automatic intelligent classification of these sonar images may provide more effective researches in oceanic engineering.

There are three main phases involved in the system. They are Feature and Coefficient extraction of Side Scan Sonar Images, Designing a network for classifying five different types of under waterside scan sonar images and finally recognizing the same. For classification, neural classifiers in FFT, WHT and DCT transformations are used. The main aim of the method is to improve the performance in classifying the side scan sonar images using neural network algorithm.

Keywords: NeuroSolutions5, Neural network, Transformed domain techniques, MATLAB.

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Certificate

This is to certify that the Dissertation entitled

Personalized Web Based B2B Services Using Fuzzy Approach

is a bonafide work and it is submitted to the Sant Gadge Baba
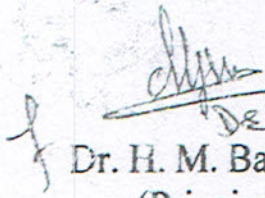
Amravati University, Amravati

by

Ms. Snehal D. Mahanur

in the partial fulfillment of the requirement for the degree of
Master of Engineering in Computer Science & Engineering,
during the academic year **2016-2017** under my guidance.

Prof. P. D. Thakare
(Guide)

Prof. P. D. Thakare
(Head of Department)

Dr. V. G. Heve
29/05/17

Dr. H. M. Baradkar
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Department of Computer Engineering

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Session 2016-2017

ABSTRACT

In real world applications, Internet plays a vital role on B2B e-services. B2B e-services in the sense and user can purchase or gaining services through online it could be achieved by giving such recommendations to generate personalized suggestion on product/services to customer but it is complex to handle because of the data in the format of tree structure and also for fuzzy user preference. To handle these problems, we propose a technique to model the fuzzy tree-structured user preferences. And also a recommendation approach is developed for recommending tree-structured items our proposed approach is applied to various datasets like "Australian business dataset" and the "MovieLens dataset". Our proposed approach shows the effectiveness on user preference profile and excellent performance on our proposed recommendation approach for tree-structured items. The main objective of our framework on making recommendations to personal users. Our proposed framework solves the problem on complicated tree structures data in business applications.

E-service intelligence is a new research field that deals with fundamental roles, social impacts and practical applications of various intelligent technologies on the Internet based e-service application s that are provided by e-government, e-business, e-commerce, e-market, e-finance, and e-learning systems, to name a few. This study offers a thorough introduction and systematic overview of the new field e-service intelligence mainly based on computational intelligence techniques.

Jagadambha College of Engineering & Technology, Yavatmal

Department of Computer Engineering
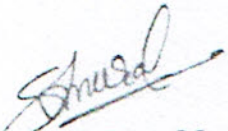
Certificate

This is to certify that the project titled

Implementation of Web Based Application to Teach Students Earned Value Management Concepts

has been successfully completed in session 2016-2017

by **MR. SHAILESH U. SAMBHE** *in recognition to the partial fulfillment for the degree of Master of Engineering(Computer Science & Engineering),Sant Gadge Baba Amravati University, Amravati.*

Asst. Prof. S. A. Murab
Guide

Asst. Prof. P. D. Thakare
H. O. D.

Dr. Hemant M. Baradkar
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ABSTRACT

Web Based Application for Student is the computer and network enabled transfer of skills and knowledge. It includes out-of classroom & in-classroom educational experiences via technology. It is naturally suited to distance Learning and flexible learning. It is available anywhere, anytime. It is a self-paced interactive instructive presented over the Internet to browser equipped learners. The E-Learning solution is empowering, engaging, effective and economical. Once developed, the system will then be evaluated for effectiveness in enhancing learning experience of students with regards to Earned Value Management in any discipline.

Keywords: Web based application; Project management; Students; Earned value management; EaVaMa

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CERTIFICATE

This is to certify that the Dissertation report entitled

"PERFORMANCE BASED SEISMIC DESIGN OF RCC BUILDING"

Is a bonafide work and it is submitted to the Sant Gadge Baba
Amravati University, Amravati.

By

Chetan S. Ingale

In the fulfillment of the requirement for the degree of **Master of Engineering in**
Civil-Structural Engineering, during the academic year 2016-2017
under my guidance.

19/9/17

Prof. M. R. Nalamwar

Guide

20/5/2017

Prof. A. R. Rode

HOD

Dr. H. M. Baradkar

Principal

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2016-2017

ABSTRACT

Every Civil Engineering structure or building is unique in nature unlike other engineering products which are in a massive scale using the same technique again and again. The present Project is an effort to understand Performance Based Design Approach. The performance-based seismic design approach enables us to design new structures more efficiently and to assess existing structures more realistically. The promise of performance-based seismic engineering is to produce structures with predictable seismic performance. Performance based seismic design exactly evaluates how building is likely to perform in given potential hazard. In performance based design identifying and assessing performance capability of building in an integral part of design process, and guide the many decisions that must be made. Present study based on performance based seismic design and non-linear analysis of multi-storey RCC building. Performance based seismic design is an iterative process, begins with selection of performance objective followed by development of preliminary design, an assessment as to whether or not the design meets the performance objective and finally redesign and reassessment, if required until desired performance level is achieved. In this project, work will be carried out for performance based seismic design of multi-storey (G+5) RCC building. Once design is completed, non-linear analysis is carried out to study seismic performance of building and found out whether selected objective is satisfied or not. In this work (G+5) RCC building is designed as per IS code (IS 1893 (Part 1): 2002, IS 456: 2000) for zone 5 and a nonlinear static analysis is carried out using auto plastic hinges. After the building is designed it is imported to ETABS platform in order to carry out Pushover Analysis. The Displacement controlled Pushover Analysis was carried out and the Pushover Curve were obtained for the building in both the direction i.e. X and Y as per guidelines mentioned in ATC 40. The Capacity Spectrum, Demand Spectrum and Performance point of the building was found in both the direction using the analysis carried out in ETABS 2015. From the Performance point it was found that the Building designed as per Indian standards was found to be well above Life safety performance level considering Designed Based Earthquake.
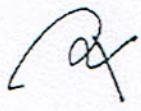
viii

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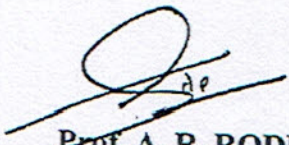
CERTIFICATE

This is to certify that the dissertation work entitled

"A COMPARATIVE STUDY OF RCC BUILDING WITH AND WITHOUT CONCRETE AND STEEL PLATE SHEAR WALL"

is a bonafide work and it is submitted to the Sant Gadge Baba

Amravati University, Amravati,

by

Mr. CHETAN SURESHRAO BIDWAIK

in the fulfillment of the requirement for the degree of **Master of**

Engineering in **Civil Engineering,** during the

Academic Year 2016-2017.

Under my guidance

Prof. R. M. KHOBRAGADE
(Guide and ME Coordinator)

Prof. A. R. RODE
(HOD)

Dr. H. M. BARADKAR
(Principal)

DEPARTMENT OF CIVIL ENGINEERING

JAGADAMBHA COLLEGE OF ENGINEERING AND TECHNOLOGY

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Affiliated to **SANT GADGE BABA AMRAVATI UNIVERSITY,**
Amravati, (M.S.) 2016-2017"

ii

ABSTRACT

In recent years construction of high rise buildings is widely increased due to highly increasing cost of land and scarcity of land in metropolitan cities. These structures are sensitive to wind and earthquake forces. Behaviour of such structures can be controlled by effective lateral structural systems, which increases stiffness of building. Although in present day's computer technology allows for precise analysis and design of different systems for high rise buildings, it does not readily insight for choosing among the alternatives of these systems to arrive at the best overall design. While studying uncontrolled response it was observed that response in terms of displacement and acceleration was exceeding IS code limits. The enhancement in the performance of the building is studied under earthquake loads by installing lateral force resisting systems, such as Special Moment Resisting Frame (SMRF), Concrete Shear Wall and Steel Plate Shear Wall. These systems were applied at various positions with different cross-sectional properties. Modeling and analysis is carried out using ETAB.

It is evident from the observations that all proposed arrangements improve the performance of the building in controlling story displacement, acceleration. The present work is expected to compare effectiveness of various lateral forces resisting system to earthquake excited on G+20 building.

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