



Shri Balasaheb Mane Shikshan Prasarak Mandal's

ASHOKRAO MANE GROUP OF INSTITUTIONS

NH - 4, Vathar Tarf Vadgaon, Tal: -Hatkanangale, Dist: - Kolhapur-416112

E-mail: hodcivil@amgoi.edu.in, Website: www.amgoi.org



NBA accredited Programs* | Accredited by NAAC with 'A' Grade (CGPA 3.08)

DEPARTMENT OF CIVIL ENGINEERING

Date: 14/10/2018

Co-ordinator Report

Training Program

On

“Advance Building Architectural Software- 3D's Max V-Ray & Photoshop”

Name of the Co-ordinator: **Prof. S. A. Jangam**

Schedule the program:

Date	Topic	Resource Person
17/08/2018	Introduction of 3D max	Mr. Rohit Katkar
18/08/2018	Basic Commands	Mr. Riyaj Pendhari
19/08/2018	Extrude & Edit Poly	Mr. Rohit Katkar
25/08/2018	Door & Window	Mr. Rohit Katkar
26/08/2018	V - Ray Texture	Mr. Rohit Katkar
15/09/2018	V- Ray Material & Colour	Mr. Rohit Katkar
16/09/2018	Light Effect	Mr. Rohit Katkar
29/09/2018	Sunlight & Camera Setup	Mr. Rohit Katkar
30/09/2018	Photoshop	Mr. Rohit Katkar
07/10/2018	Rendering	Mr. Rohit Katkar
13/10/2018	Practice	Mr. Rohit Katkar
14/10/2018	Practice	Mr. Rohit Katkar



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DEPARTMENT OF CIVIL ENGINEERING

1. Inauguration Function:

The inaugural function is started at 10 am as per schedule. The chief guest for inauguration was Dr. D. N. Mudgal Director, AMGOI. The function started with lightning of lamps. The introductory speech was delivered by Prof. J. M. Shinde, CESA Coordinator. The felicitation of dignitaries with roses & books is followed by introductory speech. Mr. Rohit Katkar Trainer of Poly Edge Consultancy Give the introduction of 3D software. Vote of thanks was delivered by Prof. S. A. Jangam.

2. Participant Details:

Total 22 participants were attended the program. All participants from TY Civil

Prof. S. A. Jangam.
Co-ordinator of Program

HOD
Department of Civil Engineering

Ashokrao Mane Group of Institutions, Vathar. Faculty of Engineering
 Department of Civil Engineering
 3D MAX ATTENDANCE SHEET

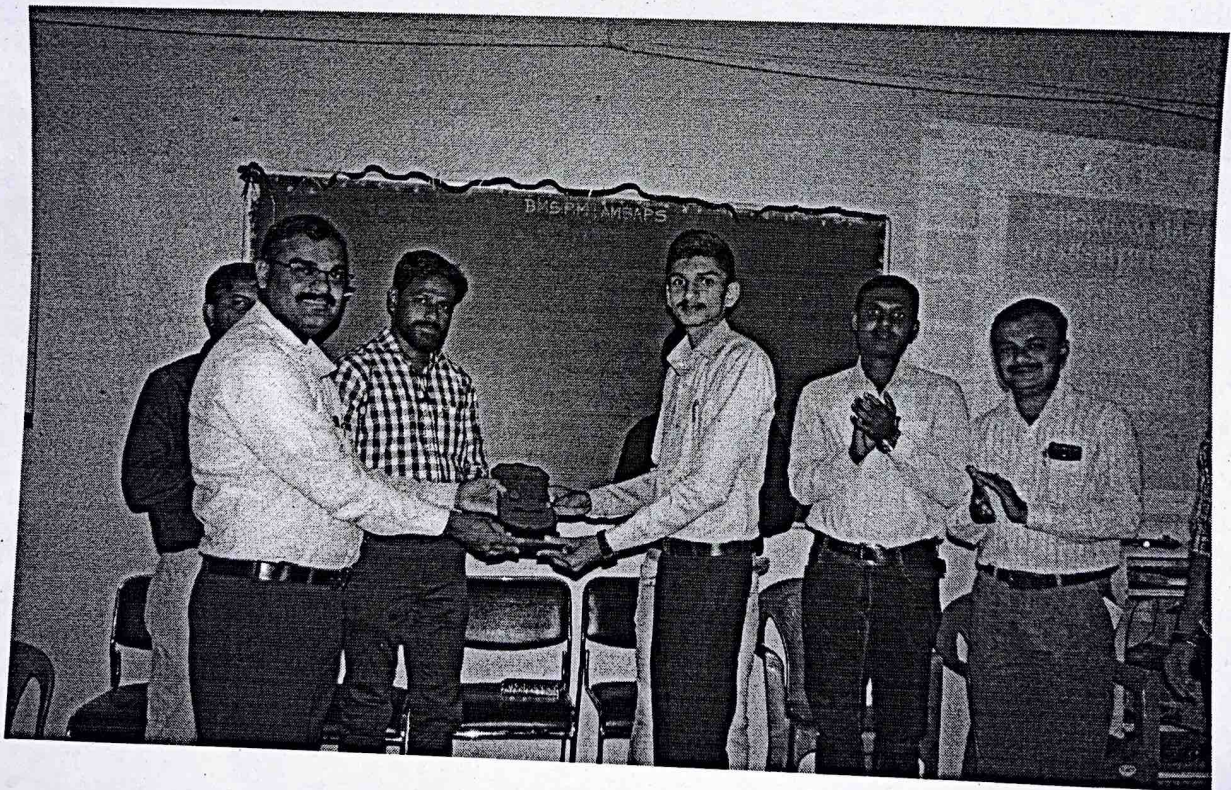
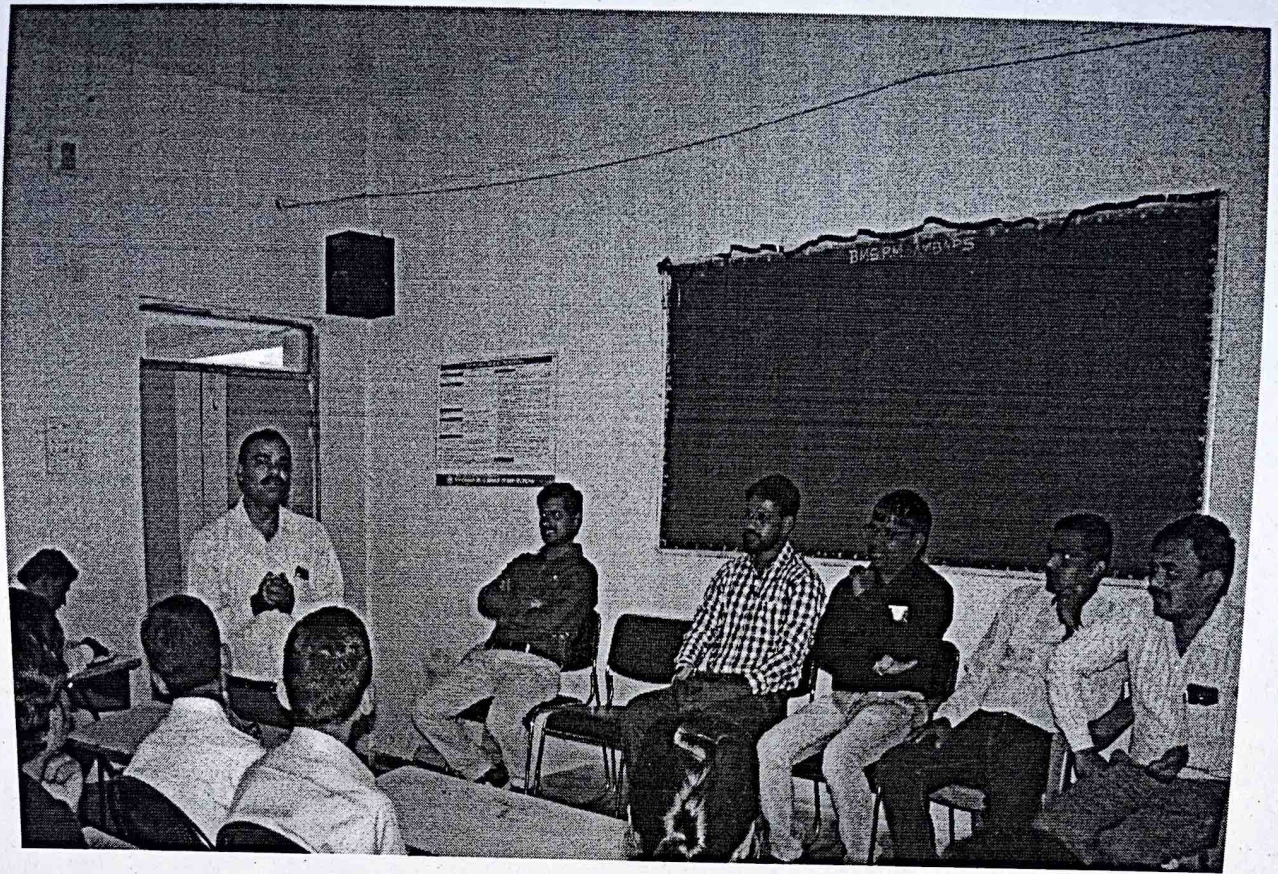
Class: TY CIVIL

Semester: Odd

SR No.	Name of Student	Month	Aug					Sept				Oct		
		Date	17/8/2018	18/8	19/8	25/8	26/8	15/9	16/9	29/9	30/9	7/10	13/10	14/10
1	/Chougule Shivani Rajaram		P	P	P	P	A	P	P	P	P	P	A	P
2	/Devkate Pallavi Pandit		P	P	P	P	P	P	P	A	P	P	P	P
3	Gawas Vinit Vishwanath		P	P	P	P	P	P	P	P	P	A	P	P
4	/Kamble Amrapali Sudam		P	A	P	P	P	A	P	P	P	P	P	P
5	/Kashmire Shrutika Shrenik		P	P	P	A	P	P	P	P	P	A	P	P
6	Khot Vaibhav Dinakar		P	P	P	P	P	P	P	A	P	P	P	P
7	Shinde Rushikesh		P	P	P	P	P	P	P	P	P	P	P	P
8	Patil Rutuja		P	P	P	P	P	P	A	P	P	P	P	P
9	Kudalkar Aditya Mukund		P	P	P	P	P	P	A	P	P	P	P	P
10	Bange Omakar K		P	P	P	P	P	P	P	A	P	P	P	P
11	Mankar Kalpesh S		P	P	P	P	P	P	P	P	P	P	P	P
12	Mankar Rushikesh Kumar		P	P	P	P	P	P	P	P	P	P	P	P
13	Parake Sandip Dhondeeba		P	P	P	P	P	P	P	P	P	P	P	P
14	/Patil Shweta Uttam		P	P	P	P	P	P	P	P	P	P	P	P
15	/Pawar Shweta Kumar		P	P	P	P	P	P	P	P	P	P	P	P
16	Desai Namrata S		A	P	P	P	P	P	P	P	P	P	P	P
17	Patil Asmita		P	P	P	P	P	P	P	P	P	P	P	P
18	Patil Yogesh Rangarao		P	P	P	P	P	P	P	P	P	P	P	P
19	Patil Viraj Vishnu		P	P	P	P	P	P	P	P	P	P	P	P
20	Thanekar Prasad R.		P	P	P	P	P	P	P	P	P	P	P	P
21	Kaware Shubham Jayawant		P	P	P	P	P	P	P	P	P	P	P	P
22	Mangal Arati		P	P	P	P	P	P	P	P	P	P	P	P

[Signature]
 Co-ordinator

[Signature]
 HOD



Name of Student. : Rohit Rajendra Vibhute.
Year of Engineering and Branch : Third Year, Electronics and tele. Engineering.
Project Title : ML and AI in Renewable Energy Sector
Supervisor/ Mentor Details : Prof. Stanislav Eroshenko and Alexandra
Supervisor/ Mentor Details : <https://wintersummeruni.urfu.ru/en/about-professors/>



Labs Details: Machine Learning Algorithms (Sklearn), Python, Pandas, Jupyter Notebook.

Project Description:

There was dataset of a power plant with different attributes given. First, we did some pre – processing on it. This pre – processed data was then divided into training and testing dataset. And then the training dataset was given to the Random Forest Regressor Algorithm and model was trained and then testing was performed to predict data. The previous mentioned process was followed 3 times first to predict solar irradiation at atmosphere, second to predict solar irradiation at earth surface and then to predict the power output. And at last we test our model to predict it for different weather such as sunny, rainy, cloudy and partly cloudy.

Experience about Fellowship Program:

The fellowship is the chance to build up future profession prospects. Experience and opportunities are key points. Meeting individuals from different specialized and social background gives you the happiness to work with them and explore new things. People will recognise every quality; the person has and will give you task accordingly. They know how to extract the true talent out of every student. Relationship between student and teacher is always mutual. The accommodation, library, and aquatics facilities provided by the university is very amazing. Cooking food with everyone is an amazing experience. Mentorship provided by the foreign professors is a golden opportunity which everyone should take advantage of that opportunity to learn something new.

Project Partners: Diksha Dayma, Shivani Dharmadhikari, Sudarshan Waydande, Manish Rane, Rohan Bhosale, Shubham Shelar.

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Signature of Student

Machine Learning Algorithms for Power Transformers Technical State Assessment

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Abstract—The paper addresses the problem of operated power transformers actual technical state identification by using existing technical diagnostics retrospective data. The initial data set was composed of results of transformer oil analysis, loading conditions, infrared snapshots and aggregated characteristics of the technical state of bushing, surge arrester and cooling system. Retrospective data of technical diagnostics was used. Technical state estimation process was divided on several steps and was performed by Python. First step was feature selection, where the features with low meaning in terms of the problem formulation are ejected. The second step is the processing of missing data to increase the dataset. KNN algorithm was used to restore missing values. The final step is learning transformer technical state classifier based on random forest tree approach. The results of power transformer state's classification demonstrated relatively high accuracy of identification.

Keywords — machine learning, power transformer, technical state, classification, data filtration and recovery

I. INTRODUCTION

Power transformer is one of the key elements in the electrical grid, which ensures the connectedness of grids with different voltages. Ensuring the stability and reliability of the electric power system (EPS) to a large extent depends on the technical state of power transformers and especially autotransformers. The transformer failure has a significant impact on the EPS operating mode when the disturbance can lead to the following cases:

- grid element overloads, equipment overloading control automation (EOCA) operation, grid division, cascade accidents;
- voltage reduction in control points, undervoltage control automation (UCA) operation, consumer tripping in a particularly difficult case;
- steady-state instability, centralized emergency control automation or local stability control automation (SCA) operation, consumers or

generation tripping in accordance with the typed or set tables of control actions;

- cascade accident evolution in case of the transformer circuit breaker failure and the operation of the circuit-breaker failure protection (CBFP).

Also, the transformer technical state as a business asset, and consequently, the equipment maintenance strategy (based on it) has a significant impact on the business processes of the electric power company.

Thus, the power transformers technical state assessment is a key issue both from a technical and economic points of view.

II. MODERN APPROACHES TO THE TRANSFORMERS TECHNICAL STATE ASSESSMENT

The technical state assessment issue of power transformers has been widely considered in studies that can be classified according to the following gradation of methods:

1. expert knowledge to weigh test results [1, 2];
2. conventional statistical approaches [3-7];
3. fuzzy logic theory [8-10];
4. reliability theory [11];
5. artificial intelligence methods [12-22];
6. health index (HI) table [23];
7. multi-feature factor analysis [24];
8. wavelet network analysis [25];
9. thermal aging theory [26];
10. mixed mathematical and expert approaches [27].

One of the first methods for a comprehensive technical state assessment of power transformers is the expert knowledge application to assess testing results.

The research [1] presents a methodology for the power transformers technical state assessment based on testing data. The initial data set contains:

- dissolved gas analysis (DGA);

Memorandum of Understanding

between



**Walchand College of Engineering,
Sangli**

and



Ashokrao Mane Group of Institutions

Vathar Tarf Vadgaon,

Tal: Hatkalangale, Dist: Kolhapur (Maharashtra)

Under

AICTE Margdarshan Scheme

2018-19

AICTE - Margdarshan Scheme

Memorandum of Understanding

The MEMORANDUM OF UNDERSTANDING (MOU) is between Walchand College of Engineering Sangli (Hereafter called WCES) as Mentor Institute and Ashokrao Mane Group of Institutions (Hereafter called AMGOI) as Mentee Institute for the purpose of enriching the technical education process and to jointly work for enhancing the quality of education imparted to faculty, staff and students is signed on 1/10/2018

This MOU entered into between WCES and AMGOI represented in this MOU by the respective Directors/Principals on behalf of Board of Governors, of their Institutes which shall mean and include their successors in interest and assigns.

Following points are agreed upon as part of this understanding:

Terms & Conditions

1. Nature of Relationship:

This MOU is for collaboration between both parties, for mutual benefit, for the many purposes set out as given below to enhance the quality of the educational experience for faculty, staff and students.

This MOU shall be valid for 3 years from the date of signing and each party shall be at full liberty to terminate the collaboration, with a notice period of 3 months.

Both parties shall take all reasonable steps to ensure the successful completion of the collaboration and co-operate with each other in duly carrying out the obligation agreed upon.

2. Objectives of collaboration:

- 2.1 To organize at least Six Faculty Development Programs under AICTE - Margdarshan Scheme for faculty of mentee institutes over a period of three years by Walchand College of Engineering Sangli.
- 2.2 To organize at least 25 Guest Lectures by Walchand College of Engineering Sangli for faculty of mentee institutes under AICTE - Margdarshan Scheme over a period of three years.
- 2.3 To undertake collaborative R&D work/R&D Projects:
Self-Generated: Using Infrastructure / Laboratory facilities, faculty from respective fields to jointly undertake research Programme either at Mentee Institute or at Mentor Institute. For Technology / Patents so evolved joint rights of ownership will be mooted.
Industry-Sponsored: R&D/ Consultancy from industry to be jointly undertaken by faculty from Mentee Institute and Mentor Institute.
- 2.4 To do joint publications arising out of collaborative work.
- 2.5 To help and support in achieving NBA accreditation to the programs in mentee institutes and help them in carrying the SWOT analysis.
- 2.6 To guide and support faculty of mentee institutes to complete their Ph. D. in respective fields.
- 2.7 To support autonomous institutes to establish autonomy in their institutes
- 2.8 To help students of mentee institutes to increase their placement and to encourage them for higher education.

3. Mutual Obligation:

- 3.1 This collaboration shall not be exclusive to both parties and shall not disallow each party from having similar collaboration with others. Except as expressly stated in this MOU, there shall be no obligation on any party to compensate the other in any manner or to make any claim.
- 3.2 Each party shall meet the expenses between them as mutually agreed.
- 3.3 Each party shall respect the other's intellectual property (IP) and shall not use any trade name, trademark, symbol/logo, or designation belonging to the other, without prior written approval. No party shall hold out as an agent or representative of the other or create any liability for the other. The parties shall indemnify the other for breach of this clause.
- 3.4 Both parties shall maintain confidentiality about any information, course material, plans, discussions, strategies or any material, which shall be deemed to be confidential and marked accordingly. Any information, course material or the like in the public domain shall not be part of this commitment.

4. Limitation and Warranties

- 4.1 Each party shall ensure that the other is not put to any liability for any act of the respective party.
- 4.2 Each party represents that they have the full power and authority to enter into this MOU in general.

5. General

- 5.1 Both parties will designate a representative from its side who will be the primary point of contact on behalf of that party.

6. Commitments from Mentee Institute towards this MoU

- 6.1 Active participation of faculty in the workshops, seminars and activities arranged by WCES under Margdarshan scheme.
- 6.2 Efforts by faculty members in activity like joint publications, research and sharing resources
- 6.3 Readiness to bear registration fees (if any), travelling, lodging & boarding expenses of participating faculty from Mentee institute for the period of time spent in Mentor institution.
- 6.4 Investments for expenses in case of research activity and joint publications.

AMENDMENT TO THE MOU

No amendment or modification of this MOU shall be valid unless the same is made in writing by both the parties or their authorized representatives and specifically stating the same to an amendment of this agreement. The modification/ changes shall be effective from the date on which they are made/ executed unless otherwise agreed to.

ARBITRATION

In the events of any dispute or difference between the parties hereto, such disputes or differences shall be resolved amicably by mutual discussion of the Directors of the two institutes.

Now, therefore, for and in consideration of the foregoing premises the parties have signed the Memorandum of Understanding

In written whereof both parties put their hard seal on the day, month and year herein mentioned

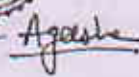
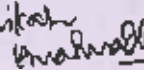
PARTIES


Director
Walchand College of Engineering
Vishrambag, Sangli

For and on behalf of
Administrative Council,
Walchand College of Engineering
Sangli



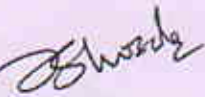

WITNESS

1. Dr. Mrs. A. A. Agashe 
2. Dr. V. B. Dhalmadkikar 

Dated: 01/10/2018


Director **Dr. D. N. MUDGAL**
Ashokrao Mane Group of Institutions,
Vathar Tarf Vadgaon, Tal. Hatkanangale,
Dist. Solapur - 416 122 (M.S.)
For and on behalf of
Academic Advisory Committee,
Ashokrao Mane Group of Institutions,
Vathar Tarf Vadgaon.

WITNESS

1. Dr. D. S. Bhosale 
2. Dr. S. A. Khot 

Dated: 01/10/2018



Details of MOU

Sr. No	MOU signed with Industry/Organization	Date of signing MOU	Purpose of MOU	Outcome/Beneficiaries
1	Walchand College of Engineering, Sangli	01/10/18	To organize Faculty Development Programs. To organize Guest Lectures by faculty of WCE Sangli. To undertake collaborative R&D work/R&D Projects.	Faculty and students of Mechanical Engineering

Activities under MOU

Guest lecture	Faculty and students of Mechanical Engineering 
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