



AISSMS

COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi and affiliated to Savitribai Phule Pune University
College ID No. PU/PN/Engg/093(1992)

Accredited by NAAC with Grade 'A+'



The newsletter of Department of Civil Engineering

Concrete People

2021-22 (Term I)

Principal: Dr.D.S.Bormane

Head of Dept.: Dr. U.R.Awari

Editorial Board

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Our Inspiration

**Shri Shahu
Chhatrapati Maharaj**

President, AISSMS



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www.aissmscoe.com

Vision

Service to Society through quality education.

Mission

Generation of national wealth through academics and research. Imparting quality technical education at cost affordable to all strata of the society. Enhancing quality of life through sustainable development. Achieving the distinction of highest preferred engineering college by stake holders. Carrying out high quality intellectual work.

From Principal's Desk:



I'm glad to signify that with commencement of this year 2021 AISSMS College of Engineering has completed 29 grand years of its establishment. AISSMS COE has an outcome of academic excellence achieved, is consistently producing University gold medalists and top rankers in different branches of engineering. Faculty is actively involved in research and development. College has a number of very high-end analytical, computational and experimental facilities at the disposal of students. We are going to concentrate more upon the Engineering Research activities and use those for students and society welfare. I am confident that the College is in a position to deliver the best theoretical and practical training to the students and offer the best talent to the employers. I wish all the best to the aspiring students, employers and all other stake-holders in achieving their goals.

"Education is the most powerful weapon which you can use to change the world."

From Editors Desk,...

It gives us immense pleasure to hand over to you "Concrete People" the newsletter of Civil engineering department. The course leading to a bachelor's degree in Civil Engineering was started in the year 2002. Additional intake in 2012. The department also runs a PG program in Structural Engineering with intake of 18. The Department presently has highly qualified and experienced faculty on its roll. The activities in the Department are conducted, besides teaching, in the areas of research, training, alumni and Training and Placement. The present era and the challenging future, demands strong basic technical knowledge and continuous growth of engineering students on all facets. Therefore the department is bestowed with highly qualified and experienced faculty members with specialization in various disciplines of engineering and sciences.

Hope you will find this newsletter informative. Your suggestions for improvement in the newsletter are welcome.

From HOD's Desk,..



The Department of Civil Engineering has a strong team of highly qualified and experienced faculty members with few of them registered for Ph. D. The department has well equipped laboratories with computing facility and Interdisciplinary research centers, where research activities are executed.

The following forefront areas have been identified to carry out research studies.

- Construction Management
- Structural Engineering
- Concrete Technology
- Geotechnical Engineering
- Water Resources Engineering
- Environmental Engineering
- Transportation Engineering

The students and the faculty are actively involved in carrying out in-house research projects. Department organizes Study Circle Activity for curriculum development of students. In addition, department also organizes various events for developing extracurricular activities of students under IEI Chapter.

Education is not preparation for life; education is life itself."



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Vision

Nurture the talent in civil engineers to work as global leaders for the development of society.

Mission

- Provide quality education to develop competent civil engineers
- Create awareness among students for sustainable development
- Cultivate the leadership qualities for becoming successful entrepreneurs

Program Educational Objectives (PEOs):

- To produce civil engineering's who will be fully aware of the impact of their work on society, both nationally and globally.
- To achieve a high level of technical expertise to succeed in civil engineering practice and research.
- To develop civil engineers who acquire professionalism, leadership and commitment to professional development through lifelong learning.

Program Specific Outcomes (PSO's)

Graduates will able to:

- PSO1: Exhibit technical knowledge in planning, analysis, design and management for infrastructural development.
- PSO2: Apply the innovative technologies to address Civil Engineering problems of the society.
- PSO3: Enhance professional abilities to meet industrial need.

Short Term Goals

- To augment infrastructure and processes for enhancement in teaching learning.
- To extend assistance to students for competitive examinations, higher studies and entrepreneurship.
- To establish Research centre.

Long Term Goals

- To develop testing and consultancy facilities.
- To have cent percent Doctorate faculties.
- To strengthen collaboration with the reputed institutes and industries.

Staff Achievements

- ❖ Prof. M V Waghmare, Assistant Professor in Civil Engineering, awarded Ph.D in Civil Engineering by SPPU on 24.09.2021. Title of thesis 'Semi-Active Control Strategies for Seismic Vibration Control of Elevated RCC Water Reservoirs'
- ❖ Dr. U R Awari filed a Patent : Detachable iron mould with trimmed and modified edges specially designed for concrete columns application in retrofitting activity.
- ❖ Dr R D Nalawade received Indo Asian Best Researcher Award 2021 – Geotechnical Engineering.
- ❖ Dr. V N Patil filed Design Patent - APPARATUS FOR TESTING AND MEASURING STRENGTH OF EMBANKMENT MATERIAL
- ❖ Dr P B Nangare prepared Industry Testimonials in coordination with Industry Personals on 02.08.2021.
- ❖ Dr P B Nangare Invited as a Resource Person for delivering Expert Talk on "Pipe Network Analysis with Hardy Cross Method" at Dr. VKP COE, Ahmednagar on 13.09.2021.
- ❖ Dr P B Nangare delivered Expert Talk on "Pipe Network Analysis with Hardy Cross Method" at Dr. VKP COE, Ahmednagar on 21.09.2021.
- ❖ Dr U R Awari and M S Chiwande elected as committee member in IEI Pune local center
- ❖ Dr. R D Nalawade serving as Hon. Treasurer, Indian Geotechnical Society, Pune Chapter
- ❖ Dr. V N Patil and Dr D V Wadkar recognized as a Ph D Guide by Savatribai Phule Pune University
- ❖ Dr. S R Parekar developed E-content in the form of you tube videos for the competitive exams
- ❖ Dr. P B Nangare developed E-content for Fluid Mechanics in the form of you tube videos
- ❖ Dr. D V Wadkar developed E-content for Environmental Engineering in the form of you tube videos

Papers Published /Presented in Journal /conferences by Faculty

- ❖ Dr V N Patil published a research paper on “Bearing Capacity of Reinforced Embankment Slope Models of Fly Ash and Furnace Slag” in the journal Transportation Infrastructure Geo-technology in August 2021.
- ❖ Dr V N Patil published a research paper on “Plaxis 2D Numerical Analysis of Encased Stone Column in Soft Clay” in First Indian Geotechnical and Environment Engineering Conference at NIT Jalandharduring 19-20 Nov. 2021
- ❖ Dr V N Patil published a research paper on “Bearing capacity of Geocell reinforced model fly ash slope” at NIT Jalandharduring 19-20 Nov. 2021
- ❖ International book entitled “River Hydraulics”, on which Dr P B Nangare’s research paper is contributed and published on 16.12.2021.
- ❖ Dr P B Nangare published a research paper on “ Evaluation of water treatment plant using Artificial Neural Network case study of Pimpri Chinchwad Municipal Corporation” in International Journal of Sustainable Water Resource Department Volume 7, issue 4, Article No.52 in August 2021, Springer, Web of Science SCI
- ❖ Dr. U R Awari presented a paper on Experimental investigation of externally bonded RC Beams using Banana fiber reinforced polymer”, in two days national conference on Recent Trends on Innovation in Civil and Mechanical Engineering funded by Council of Science and Technology, Organized by Teerthanker Mahavir University, Moradabad, Uttarpradesh on 26th and 27th November 2021.
- ❖ Dr. U R Awari published a paper on Seismic analysis of steel frame using soil structure interaction considering BRB, in International Research Journal of Engineering and Technology (IRJET), Volume: 08 Issue: 05, May 2021, pp 4742-4751. e-ISSN: 2395-0056

- ❖ Dr. U R Awari published a paper on Effect of Earthquake Resistant System on Vertically Irregular RC Tall Building, International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Volume 10, Issue 9, September 2021, pp 13352- 13258.
- ❖ Dr. U R Awari published a paper on Suitability of lead rubber bearing of high rise building, International Journal of Advanced Scientific Research and Engineering Trends, Volume 5, Issue 12, September 2021, pp 217-229. ISSN (online) 2456-0774, DOI 10.51319/2456-0774.2021.0010
- ❖ Dr. U R Awari published a paper on Effect of Partially Replacement of River Sand, by GBS Sand and Crushed Sand, International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Volume 10, Issue 12, December 2021,pp 15381- 15387. e-ISSN:2319-8753,p-ISSN:2347-6710
- ❖ Dr. U R Awari published a paper on Strengthening of RC Column using GFRP under Seawater Conditions, International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Volume 10, Issue 12, December 2021, pp 15421-15426. e-ISSN: 2319-8753, p-ISSN: 2347-6710, DOI:10.15680/ IJIRSET. 2021.1012120.
- ❖ Dr. U R Awari published a paper on Influence of Nano-Silica and Rice Husk Ash on properties of Concrete, International Journal of Research Publication and Reviews, Vol 2, no 12, December 2021, pp 1710-1714.
- ❖ Dr D V Wadkar published a paper on Application of cascade feed forward neural network to predict coagulant dose. Journal of Applied Water Engineering and Research, 2021, 10(1), 1-14 ISSN: 23249676 Taylor & Francis, Web of Science, ESCI, Scopus, UGC
- ❖ Dr D V Wadkar published a paper on Evaluation of water treatment plant using Artificial Neural Network (ANN) case study of PCMC Sustainable Water Resource Management. 7(52), 1-14, 2021 23635045 ,Springer, Web of Science, ESCI, Scopus, UGC

- ❖ Dr D V Wadkar published a paper on Applications of cascade feed forward neural network for modeling of coagulant dose in a drinking water treatment plant: comparative study (selected for publication) Springer (USA) Book- "Theme 5: Groundwater and Water Quality, 2021 Springer, Web of Science, ESCI, Scopus, UGC
- ❖ Dr D V Wadkar published a paper on Microbial fuel cell: an innovative technology for wastewater treatment and bio-electricity generation PENSEE,51 (6), 897-905 ,2021
- ❖ Dr D V Wadkar published a paper on Application of soft computing in water treatment plant and water distribution network Journal of Applied Water Engineering and Research, 2021 ISSN: 23249676 , Taylor & Francis, Web of Science, ESCI, Scopus, UGC
- ❖ K N Kulkarni published a paper on Developmental Studies for a Fuzzy Rule based System for Various Engineering Applications in 2021, ISSN: 0011-9342 Year 2021 Issue: 8 Pages: 12409 – 12412 published by Design Engineering (Toronto) Scopus Indexed.
- ❖ K N Kulkarni published a paper on Fuzzy Logic and its Developmental Advances: A Review 2nd International Conference on IoT Based Control Networks and Intelligent Systems (ICICNIS 2021)
- ❖ S P Khedekar published a paper on Deep Learning Methodologies and Applications in Artificial Intelligence: A Review, ISBN 0011-9342, published by Design Engineering (Toronto) Scopus Indexed.
- ❖ V S Chavhan published a paper on Controlled Ski-jump Spillway Model Design According to IS code, IJEAT, ISSN: 2249-8958, Scopus
- ❖ V S Chavhan published a paper on CFD in Hydraulic Modeling, IJFGCN, ISSN: 2233-7857, ESCI

Workshops / FDPs organized by Faculty

- ❖ Dr R D Nalawade organized workshop on the topic “Geotechnical Case Studies of Infrastructure Projects” on 12.06.2021
- ❖ Dr P B Nangare organized an Expert Talk on, “Dissipation of Energy using solid roller bucket and Type II Stilling basin”, organized by IWWA Pune Centre in association with Department of Civil Engineering on 27.07.2021.
- ❖ Dr P B Nangare coordinated a National Webinar on “World Nature Conservation Day”, organized by Production Engineering Department under AISSMS I - CONNECT on 28.07.2021.

Webinars/Expert Talks organized by Faculty

- ❖ M S Chiwande organized Expert Talk on Career opportunities after engineering by Mr. Anand Kumar Under IEI student Chapter on 04/06/2021.
- ❖ Dr. P B Nangare and Dr. D V Wadkar coordinated a Program on Celebration of World Environment Day in which Expert Talk was delivered by Erach Bharucha on 05/06/2021
- ❖ Dr. P B Nangare organized AISSMS I-Connect Expert talk on Career opportunities for engineering students by Prof. Toucheed Mujawar (Vice president Maharashtra association of TPO) on 06.07.2021
- ❖ M S Chiwande organized Expert Lecture on “Application of Artificial Neural Network in Civil Engineering” by Dr.Hazi Azamathulla, Professor University of West Indies at St. Augustine,Trinidad on 19.11.2021
- ❖ M S Chiwande organized Webinar on “Importance of waterproofing” delivered by Mr. Jayant Khode from Concept consultants on 14.08.2021
- ❖ M S Chiwande organized Webinar on “GATE- Awareness” by Mr. Paresh Gugale Founder ,Director I2E-imperial institute 21.08.2021

- ❖ Dr. V N Patil organized webinar on Intellectual property right in association with Library, AISSMS College of Engineering, Pune on 19.06.2021.
- ❖ S S Bhuinyan, Dr.S D Nagrale, K N Kulkarni and S P Khedekar organized Webinar on Beyond BIM: A peak in the future of construction management in association with First year Engineering department on 22.06.2021.
- ❖ M S Chiwande organized and Expert Talk on Financial Literacy by Prof. Bhushan V Adhav, Founder, Lion's Mind Development Centre under ISTE Students' Chapter of AISSMS College of Engineering, Pune on 17.07.2021.
- ❖ Dr R D Nalawade organized Bharat Ratna Sir M.Visvesvaraya Annual Oriation on "Case Study of Tunnel Excavation in Extremely Weak Rock Mass Conditions", in Association With IGS Pune & Garware Technical Fibres Pvt. Ltd., Pune on 05.09.2021.
- ❖ Dr. P B Nangare organized an Expert Talk of Rajendrakumar Prasad – MD, Viraj Envirozing India Pvt. Ltd. Pune on "Engineering for Healthy Planet" on occasion of celebration of Engineers day in association with IWWA Pune Centre on 15.09.2021.
- ❖ Shilpi B and M S Chiwande organized Virtual Plant tour of Ready Mix Concrete Plant, UltraTech RMC Plant scheduled on 03.12.21, in association with UltraTech Cement Ltd & The Institution of Engineers (INDIA), Pune Local Centre.
- ❖ Dr S D Nagrale organized expert talk on Construction Real Estate and Infrastructure sector after Engineering in association with NICMAR, Pune on 12.11.2021

STTPs/Workshops/FDPs attended by Faculty

- ❖ Dr R D Nalawade attended one week AICTE-ISTE sponsored induction program on Advances in Renewable Energy Technologies during 25/08/2021 to 31/08/2021
- ❖ Dr R D Nalawade attended One week FDP on "Environment and Sustainability: Need of the Day" during 13.09.2021 to 17.09.2021
- ❖ Dr R D Nalawade attended one week Faculty Development Program on "BRIDGE ENGINEERING " by Dr. V. K. Raina during 09.10.2021 to 13.10.2021
- ❖ Dr R D Nalawade attended one week Short Term Training Program through ICT Mode on NBA Accreditation Issues, during 22.11.2021 to 26.11.2021
- ❖ Dr R D Nalawade attended one week FDP on "Design Thinking: Aspirations for Innovations" 29.11.2021 to 03.12.2021
- ❖ Dr P B Nangare attended a session of Impact lecture Series on "IPR with reference patent drafting and filling in Indian Context", organized by Institutions Innovation Council (IIC), AISSMS COE Pune on 14.10.2021.
- ❖ Dr P B Nangare attended a Webinar on, "Application of ANN in the field of Hydraulics and Environmental Engineering", organized by IEI Student Chapter of Civil Engineering on 19.10.2021.
- ❖ Dr P B Nangare attended Webinar on NPTEL GATE Preparation Portal organized jointly by AICTE and NPTEL scheduled on 22.10.2021.
- ❖ Dr P B Nangare attended a 'Bharat Ratna Sir M. Visvesvaraya Annual Oration' on Topic, "Case Study of Tunnel Excavation in Extremely Weak Rock Mass Conditions", organized by IGS Pune in Association With AISSMS COE Pune & Garware Technical Fibres Pvt. Ltd., Pune on 05.09.2021.
- ❖ Dr P B Nangare attended a Program on "Opportunities in Construction, Real Estate and Infrastructure sector after graduation", organized by NICMAR Pune and Department of Civil Engineering on 12.11.2021.
- ❖ Dr P B Nangare attended a meeting of Builder Association of India (BAI), Pune Centre on 27.12.2021
- ❖ M S Chiwande attended Atal FDP On "Emotional Intelligence" for the duration 13.12.21 to 17.12.21 organized by AISTE & International Management Institute Bhubaneswar

STTPs/Workshops/FDPs attended by Faculty

- ❖ Dr P B Nangare attended a Virtual Tour of Ready Mix Concrete Plant, organized by UltraTech Cement Ltd., & AISSMS COE Pune on 03.12.2021.
- ❖ Dr P B Nangare attended the National Level Webinar on “Symbol of Knowledge - My Constitution”, organized by NSS & UBA, AISSMS COE Pune on 08.12.2021.
- ❖ Dr. S R Parekar attended workshop on OBE and NBA Accreditation process on 08.10.2021
- ❖ Dr. S R Parekar attended Earthquake response and Vibration control of Lifeline structures on 14.11.2021
- ❖ Dr. S R Parekar attended FDP on Improving Personal Effectiveness at Workplace Personal Effectiveness Life Skill Management on 20.12.2021

Department Activities

- ❖ Dr P B Nangare coordinated a program of “Inauguration of IWWA Student Chapter” in which invited Guest Speaker Dr. Parag Sadgir, Dr. Priyanand Agale and Chief Guest Dr. D B Panse -Secretary General IWWA for Inaugural Function of IWWA and organized key note session on topic “Smart Village” Proposed on 28.08.2021.
- ❖ 17 MOU’s of the Department under the Industry Institute Interaction are uploaded and registered on AICTE-INTERNSHIP Web Portal on 31.08.2021.
- ❖ S S Bhuinyan, P R Satarkar and M A D’Cruz organized one week online STTP for UG and PG students on 2D and 3D modeling in STAAD Pro from 10th May 2021.
- ❖ Department of Civil Engineering in association with Gymkhana and NSS organized webinar on Yoga for prevention from Covid 19 by Dr Uttam Kalwane, Expert Yoga Teacher, Bhartiya Yog Sansthan, Aurangabad on 09.05.2021.
- ❖ Institutional membership for IGBC has been initiated from academic year 2021-22.

Students Special Achievements

- ❖ Gaurav Santosh Dudhe from BE Civil-A won 1st prize in PRAGATI 2021 - The National Level Technical Innovation and Business Plan Competition
- ❖ Gaurav Santosh Dudhe's project on "Automated railway crossing with auto train speed control and live tracking" won Best Innovation Project - Certificate, Memento, Cash prize Rs. 20,000/- and also received Motivation prize on Foundation Day of SPPU.
- ❖ Gaurav Santosh Dudhe from BE Civil-A won 1st prize in SPPU Innofest Kloudq Hackathon
- ❖ Samkit Chajjed, Kalyani Chavane and Pradnya Khatpe, won the competition I-2E, for innovation project titled Automatic equal quantity and quality water distribution.
- ❖ Sanket Bhamre qualified GATE 2021 with score 31.9
- ❖ Khushali Ekbote awarded scholarship of Rs. 63994 by Opash Socio-Commercial Pvt Ltd. Pune
- ❖ Aditya Wagh completed 12 Week NPTEL course on Soil Mechanics and 12 Week NPTEL course on Design of Reinforced Concrete Structures during July to October 2021
- ❖ Vaibhav More from SE Civil-B won 2nd prize in Downtown Utopia (part 2) competition in Engineering Today 2022.
- ❖ Yash Anil Bhadekar TE Civil-A won 2nd prize in Downtown Utopia (part 2) competition in Engineering Today 2022.
- ❖ Makarand Yuvraj Mali from SE Civil B participated in Ideathon 2021-22
- ❖ Amey Parashram Remaniche, Phatak Akash Nanu and Sanket Shahaji Patil completed the industry oriented internship conducted from 16.08.21 to 15.09.21 in Quantity Surveying & Billing by Construction Industry Development Council
- ❖ Anushka Surve, Dikshant Nanaji Meshram and Sourabh Subhash Patil completed the industry oriented internship conducted from 20.08.21 to 18.09.21 in Project Management & Project Planning by Construction Industry Development Council
- ❖ Adhiraj Shrikant Kotwal, Kalyani Shivaji Chavane, Manishkumar Tulshiram Madavi, Pradnya Shankar Khatpe and Rutuj Nilesh Doshi completed the industry oriented internship conducted from 09.08.21 to 02.09.21 in Health Audit of Structures and Retrofitting of Structures by Construction Industry Development Council