

# ANJUMAN COLLEGE OF ENGINEERING & TECHNOLOGY,

Mangalwari Bazar Road, Sadar, Nagpur.

## Department of Civil Engineering

### From HOD's Desk

**Prof. Sayyed Aamir Hussain**  
Head of the Department



Civil Engineering considered as one of the oldest engineering disciplines, it involves planning, designing and executing infrastructural development works. Urbanization and industrialization demands highly qualified competent Civil Engineers. The profession deals with a wide variety of tasks that envisages designing, supervision and construction activities of bridges, tunnels, buildings, airports, dams, water works, sewage systems, ports, etc. and offer a multitude of challenging career opportunities. With privatization, liberalization, and globalization the scope of Civil Engineering has enhanced many folds.

The Civil Engineering department has been established in 2010 with an intake of 60. The department has highly qualified Faculties with academics & industrial experience having roots with NITs. We have well equipped laboratories with latest equipments and softwares. The students of the department also excel in the University and secure merit ranks every year.

In all we have 9 Laboratories viz, (Strength of Material, Concrete Technology, Environmental, Transportation, Geo technical, Engineering Mechanics, Surveying, etc.) having overall investment of approx. Rs. 50 Lakhs. The Department is also providing testing and consultancy services in the field of Geo technical Engineering, Environmental/ Waste water

Engineering, Concrete Technology, Transportation Engineering, Strength of materials and Estimation and Surveying work with its well-equipped laboratories. The department has Association of Civil Engineering Students (ACES), a platform for students to exhibit their academic and extra-curricular talent through various seminars, workshops and conferences conducted by students themselves.

I expect my students to be successful, responsible and committed to their work. I wish Best of Luck to all the students in their endeavors.

### Message from EDITOR...

The readers of this newsletter are going to be the new creators of the world with their innovative ideas and intellectual knowledge having the ability to bring a positive revolution in the existing

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**Prof. Mohd. Shahid Arshad**  
Assistant Professor,  
Dept. of the Civil



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practice. On behalf of Civil Engineering Department, my blessings are with them to share their faithful knowledge. I hope some of the content of this newsletter will contribute to that development in the processing of engineers. The management of Anjuman College of Engineering & Technology has given a wonderful platform of this newsletter to gather innovative ideas and knowledge that are worth sharing with everyone. This newsletter consists all the achievements of the glorious history of the previous year 2016-17 which was full of activities by the students and the faculties. It arranged the entire academic, co-curricular, extra curricular as well as research and development activities. The magazine which was issued content stories based on research and education. But this newsletter reflects a change that underlines every story you read. Some of the content is about the emerging trends in engineering that is witnessed by the world or can be witness by the world by innovative research.

Our vision is to provide the quality of education of engineering with basic teaching of engineering and added

flavour to it of advancement in the engineering through the various research and development programme to form a perfect blend to produce an Engineer. My message to all the new engineers through this column is to learn engineering in flexible manner in which it should have space for transformative learning through various tools of software so that you can withstand in market firmly and shine like a pearl in this cut throat competition. The value of engineer is not by how much percentage he/she got but his skill is determined and checked through various practical aspects of engineering. You should be passionate at your learning and working.

The Anjuman College of Engineering and Technology has given a superb opportunity and platform of effective learning by research and scholarship, everyone should grab this opportunity of learning. When you look back after some years, you should feel thrilled about your performance academically as well as in other activities. Lastly every engineer should be sincere enough to shine his/ her academic career.

### CLASS TOPPERS (Summer-2017)

Sr.No.	Name of Student	Semester	Marks	Rank
01.	Mohd Sohail Sheikh	VIII	443/600	CGPA 9.02
02.	Amaanuddin Azad	VIII	467/600	CGPA 8.92
03.	Rakhi Wankhede	VI	575/700	SGPA 9.63
04.	Pranali Wasnik	VI	536/700	SGPA 9.30
05.	Shadab Akhter	IV	499/700	SGPA 8.24
06.	Sadaf Afreen	IV	495/700	SGPA 8.24

### CLASS TOPPERS (Winter-2016)

Sr.No.	Name of Student	Semester	Percentage	Rank
01.	Shadab Akhtar	III	77.14%	1st Class Topper 2016
02.	Sadaf Qureshi	III	76.60%	2nd Class Topper 2016
03.	Rakhi Wankhede	V	79.90%	1st Class Topper 2016
04.	Saima Anjum	V	79.14%	2nd Class Topper 2016
05.	Amarnath Burde	VII	79.07%	1st Class Topper 2016
06.	Amaanuddin Moinuddin Azad	VII	78.00%	2nd Class Topper 2016

**Students Forum  
Buniyaad 2016-17**  
Activities were under  
taken by the Department  
during the session.



**Installation of Buniyaad 2016**

**Workshop of  
AutoCAD**



**Guest Lecture by  
Omkar Nagarkar**



**Guest Lecture by  
Mrs. Vaidehi Dakwale**



**Guest Lecture by  
Abhinav Kasat**

**One Day  
Workshop on  
Application of  
AutoCAD  
in the Highway  
Engineering  
by  
Er. N. K. Mahajan**



**One Day Workshop on Concrete by Ambuja Cement**



**AutoCad Workshop**

Survey Camp 2016-17



Site Visit  
2016-17

Site Visit to NFSC Building



Site Visit to Bhandewadi STP



Site Visit to Aman's Serenity



Site Visit to DPDC Building



Site Visit to Gorewada WTP

## Events



Parents Teacher Meet



TechSaga 2k17 (Design of G + 2 Portal Frame Structure)



Prize Distribution Ceremony



**Bangalore, India's version of Silicon Valley, has taken a cue from Chinese cities' recent green revolution by creating its own vertical garden.**

A green wall is a wall partially or completely covered with greenery that includes a growing medium, such as soil or a substrate. Most green walls also feature an integrated water delivery system. Green walls are also known as living walls or vertical gardens. These give insulation to keep the house/ building warm. It is useful to distinguish green walls from green facades. Green walls have growing media supported on the face of the wall, while green facades have soil only at the base of the wall (in a container or in ground) and support climbing plants on the face of the wall to create the green, or vegetated, facade.

Green walls may be indoors or outside, freestanding or attached to an existing wall, and come in a great variety of sizes. Patrick Blanc, a botanist specialized in tropical forest undergrowth, worked with architect Adrien Fainsilber and engineer Peter Rice implementing the first successful large indoors green wall in 1986 at the city of Paris.

A famous landmark served as a canvass for the project initiated by local NGO Say Trees, wherein they installed the city's first organic garden, Mashable reports. Using 10 varieties of plant species, the group has planted more than 3,500 saplings on a pillar of Hosur Road, a popular flyover in the city. The installation is maintained by an automated drip irrigation system that ensures the plants receive their daily dose of 100 milliliters of water. The organization plans to cover all piers of the 9-kilometer flyover with the green patches to beautify the area.

Green walls subsequently saw a rapid surge in popularity of the 61 large-scale outdoor green walls listed in an online database provided by greenroof.com, 80% were constructed in or after 2009 and 93% in or after 2007. Many iconic green walls have been constructed by institutions and in public places such as airports and are now becoming common. As of 2015, the largest green wall covers 2,700 square meters (29,063 square feet or more than half an acre) and is located at the Los Cabos International Convention Center, a building designed by Mexican architect Fernando

Romero for the 2012 G-20 Los Cabos summit.

The vertical gardens required less water while making Bengaluru roads green once again. When there is no space on the roadside to plant trees. These saplings in the vertical garden are watered through automatic drip irrigation. They don't require more than 100 ml water per day.

■ Sarosh Sheikh, VI Sem, CIVIL



The Winner is Always a part of Answer.

The Loser is Always a part of the problem.

The Winner always has a programme.

The Loser always have an Excuse.

The Winner says let me Do it for you.

The Loser says that's not my job.

The Winner sees an Answer to every problem.

The Loser sees a problem In every Answer.

The Winner sees a Grin near every stand trap.


The Loser sees 2 or 3 stand Traps near every grin.

The Winner says "It must be difficult but it is possible".

The Loser says "It must be possible but it is difficult".

To be a Winner !!

■ Enamul Haque, VI Sem, Civil



# Development Spree at the Cost of Environment

GLOBAL warming is fast becoming an in-your-face issue and there is no escaping the fact that we are nearing the point of no return as the glaciers that feed our seas and rivers are melting faster than ever before at a pace that outsmarts all eras of warming taken together in centuries of earth's existence.

The hole in the all-important ozone layer has increased and the Antarctica ice chunks are melting fast, leading to rising sea levels. Even a minor rise in sea level poses danger to the livelihood and existence of millions of people worldwide. Developing countries like India would be the worst affected. India has a long and densely populated coastline and thousands of kilometers of her land area will get under sea water by the turn of the century.

Cities like Kolkata, Mumbai and Chennai face severe risk of heavy inundation, leading to large areas of these urban agglomerations sinking under water, leading to unprecedented demographic, economic and ecological crisis. Elsewhere, in the US and UK coasts and in countries like Netherlands, which is below sea level or Italy, jutting out into the sea, the implications of sea water rise will be catastrophic and liable to wipe off large sections of humanity.

Back home in India it has been found that Gangotri glacier that leads to the origination of the Ganga, retreated by 0.15 sqkm between 2007 and 2016. The glacier has been studied by Indian Space Research Organization (ISRO) by taking Survey of India maps of 1962 as the base. The area of Gangotri glacier was estimated at 224.42 sqkm from the maps of 1962, while from 1990 onwards satellite data was used to monitor the Himalayan glaciers.

The study by ISRO during last forty decades has revealed that loss in the area of Gangotri glacier during the years 1962 to 2005 was 3.19 sqkm. From 1990 to 2007 it was 0.13 sqkm and from 2007 to 2016 0.15 sqkm area was lost. As per the fifth assessment report (ARS) of Intergovernmental Panel on Climate Change (IPCC) published in 2014 globally, land and ocean surface temperature has risen by 0.83 degrees Celsius (0.65 to 1.06 degrees) over the period of 1880 to 2012.

Much extreme weather and climate events like heat waves, heavy precipitation and severe weather phenomena have been observed since about 1950. According to India Meteorological Department (IMD), in line with rising temperatures across the globe, all India mean temperature has risen by nearly 0.60 degree Celsius over the last 110 years. Further, IMD studies have highlighted that extreme heat waves, extreme rain fall events of moderate and high intensity have shown a significant positive trend.

Global warming is leading to an accelerated rise of the sea level in the north Indian Ocean as compared to the global estimate. Recent studies by Indian scientists have revealed that the trend sea level rise in the north Indian Ocean is slightly higher than the global estimate of 3.2 mm per year. From 1993 onwards, an acceleration of rise in global sea level has been noticed, taking the annual rise to present 3.2 mm from previous 1.7 mm.

In the wake of these developments, the Centre has issued a notification with a view to ensuring livelihood security to the fisher men and other local communities living in the coastal areas to conserve and protect coastal stretches and its marine area taking into account the dangers of natural hazards due to the global warming. But, the problem is that there's not much left now that common people can do. Small measures can be taken but today we are already so late to wake up to the

ominous reality that small steps will not have any major impact in offsetting the adverse trend. The giant juggernaut of industrialization and human ambition cannot be reversed or stopped. It has gone out of our hands and spiraled into an issue much bigger for us to grasp or act upon. Scientists have been warning the global community for over five decades on the possible outcomes of our development spree at the cost of our environment but countries have paid little heed to their premonitions.

Today, we are on the threshold of an environmental debacle that can ravage the earth and ironically, even today, powerful nations are wallowing in self-aggrandizement maneuver which leaves them with little energy to spare a thought for the environment. Industrial growth and expansion of human activities and settlements are complimentary to each other, the latter will follow as long as long as the former happens.

Therefore, we have a very small window here and the delicate balance needed to be maintained between industrialization and environment protection is a tight ropewalk which strategists and policy makers need to negotiate with dexterity. Industrialization has to happen because of human logistic and economic needs. But the art of civilization is to do so without harming the environment or at least minimizing the impact of industrialization on the environment through best possible practices. Here is where we severely lack consensus and resources. Poorer nations have their own set of resource handicaps, which hinder their efforts in taking drastic positive measures. While the rich ones are unwavering in their reluctance to help out the poorer ones for the benefit of environment and humanity. Rather they heap the blame on the developing nations for all the mess and themselves stick to the wrong practices without speculation or compunction.

This deadlock is a traditional bane for humanity and continues till today. We fail to unite for a cause. Vehicular emission for instance, is one of the prime reasons of global warming and the need of the hour is to switch rapidly from petrol and diesel vehicles to solar, electric, hybrid and CNG vehicles, including sprucing up and promoting the use of public transport system. This is a mammoth task and most countries are far from any switch over in near future because of the cost and infrastructure impediments. There is no global roadmap or co-operation between nations in making this transition possible. The vehicular population is rising in leaps and bounds but we have little contingency plans to reduce pollution levels accruing due to this surge in vehicular numbers. Similarly, deforestation is rampant in most parts of the globe while plantation drives are limited in number and frequency. Moreover, as always said, no amount can fill in the loss of old, established vegetation. It takes decades to replenish. Such reckless and uncaring attitude of ours is squarely responsible for the situation we are sinking in. There is very little time in hand. Still global powers can sit together and much in for the cause.

A global planning and co-operation are the need of the hour. Isolated efforts will no longer make much of a cut because it is a global problem and needs intense and urgent redressal. International organizations like the UN must use their power and clout to bring countries together at the table to stall further environment degradation expressly, rising above petty political interests. Political leaders too must leave their myopic vision and for once, unite and act, because this is a make or break situation for all humanity and civilization.

■ Prof. Mohd. Shahid Arshad, Dept. of Civil

# Students Achievement

## ● Session-Summer 2016 ●



**Rakhi Wankhede**  
75.29% SGPA 8.72  
1st Class Topper  
IV Sem Civil



**Sneha Sahare**  
81% SGPA 9.08  
1st Class Topper  
VIII Sem Civil



**Amaanuddin Azad**  
80.71% SGPA 9.11  
1st Class Topper  
VI Sem Civil



**Shadab Akhtar**  
77.14% SGPA 8.67  
1st Class Topper  
III Sem Civil



**Amarnath Burde**  
79.07% SGPA 8.72  
1st Class Topper  
VII Sem Civil



**Rakhi Wankhede**  
79.90% SGPA 9.20  
1st Class Topper  
V Sem Civil

## ● Session-Summer 2017 ●



**Mohd. Sohail Sheikh**  
VIII 443/600  
CGPA 9.02



**Amaanuddin Azad**  
VIII 467/600  
CGPA 8.92



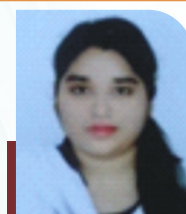
**Rakhi Wankhede**  
VI 575/700  
SGPA 9.63



**Pranali Wasnik**  
VI 536/700  
SGPA 9.30



**Shadab Akhter**  
IV 499/700  
SGPA 8.24



**Sadaf Afreen**  
IV 495/700  
SGPA 8.24



Best Student of the Year Mr. Uzair Khan (Civil Engineering Dept.)

## Details of Students who have Published Paper in International Journal 2016-17

Guide	Name of Students	Semester	Paper Topic	International Journal	Impact Factor	ISSN No.
Prof. Rashmi Bade	Danish Ahmed Faisal Ameen Jaya Sahare Nuzra Zainab	VIII	Effect of Wood Shaving Ash on Index Properties of B.C. Soil	International Research Journal of Engineering and Technology (IRJET)	5.181	2395-0056
Prof. Mohd. Shahid Arshad	Aehetesham Sheikh Irfan Khan Nikhil Gajbhiye	VIII	Design and Analysis for Supporting System of Circular ESR for Different Seismic Zone for Same Capacity	International Research Journal of Engineering and Technology (IRJET)	5.181	2395-0056
Prof. Mohd. Azaz	Amarnath Burde Mohd Yasin Lehazuddin Quazi	VIII	An Analysis of Multi Storyed Building with Floating & Non-Floating Column under Seismic Load in Different Zone	International Research Journal of Engineering and Technology (IRJET)	5.181	2395-0056