



# ST JOSEPH ENGINEERING COLLEGE

(Affiliated to VTU, Belagavi and recognised by the AICTE, New Delhi. B.E. - CSE, ECE, EEE, ME Accredited by NBA, New Delhi)

Vamanjoor, Mangaluru - 575 028

## DEPARTMENT OF CIVIL ENGINEERING

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CIVIL BYTES-2017

# CIVIL BYTES-2017

### SPECIAL POINTS OF INTEREST:

- Message from Director
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### DIRECTOR'S MESSAGE

"All of us do not have equal talent. But, all of us have an equal opportunity to develop our talent."- Dr A P J Abdul Kalam. Opportunity doesn't knock twice. Recognising the opportunity, seizing it with bravery and determination and acting on it with a positive attitude will always make you a winner living at the very top of your hopes and aspirations.

I congratulate the Civil Department of SJEC for bringing out "CIVIL BYTES-2017" – The Newsletter of the department which showcases the many activities held by the department during the year. Kudos to the HOD and the editorial team for their spectacular effort.

My appreciation and thanks also to all the staff and students of the Department who have worked together as a team to bring out this newsletter. I am happy that the department, through its academic growth, is striving hard to make a mark in this Institution.

I pray for continued success of the Civil Department in all its endeavours.

**Fr Wilfred P. D'Souza**

Director – SJEC



### ASSISTANT DIRECTOR'S MESSAGE

Happy to note that the Department of Civil Engineering has come out with a informative News Letter. The detailed information and the articles speak about the growth of the department. I appreciate the hard work put in by the Editorial board in bringing out the News letter. Let the articles and the content of the news letter become an inspiration to the students to learn more about the domain and become more innovative and society friendly. It's high time that students should observe the existing problems society and try to find solution during their engineering studies so that their study becomes fruitful and interesting.

With best wishes

**Rev. Fr Rohith D'Costa**

Asst Director - SJEC



### Editorial Team



**Govinda Krishna M**  
Assistant Professor



**Ms. Sharon Leo Noronha**  
USN: 4S014CV046



**Ms. Apoorva**  
USN : 4S014CV007

## PRINCIPAL'S MESSAGE

Civil Engineering has been one among the oldest known engineering sciences to man. Over thousands of years engineers belonging to this branch of engineering have been in search for solutions to create better living environment. This way engineers from generation to generations have been involved in this process. SJEC is also producing engineers to sustain this endeavour. Students are transforming from being a raw input to accomplished civil engineers, a journey across four years on the campus during which time they engage in learning; technical, management, team work, and certain social and cultural aspects that make them complete professional engineers who get ready to society and the nation.



“Civil Bytes” is a repertoire of the account of happenings in the department that include the activities among the staff and the students. I am delighted to know that the department has taken initiatives to bring this news letter that helps reminisce the nice moments in the department. I thank the HOD, staff and all the students who have put their best in bringing this volume. I wish them the best.

### **Dr Joseph Gonsalvis**

Principal-SJEC

## VICE PRINCIPAL'S MESSAGE

It is heartening to note that the Department of Civil Engineering is bringing out an issue of the newsletter “Civil Bytes”. The department has been growing steadily and a newsletter will do well to document its development into a full-fledged partner of the college.



Here's wishing the newsletter, and the team behind it, all success! May your work raise the bar and bring in waves of fresh thinking and excitement!

### **Dr Rio D'Souza**

Vice Principal-SJEC

## HOD'S MESSAGE

The Civil Engineering department and the Editorial team are happy to present the second issue of the E-Magazine, Civil Bytes. The department has seen a few noteworthy milestones in its pursuit towards Excellence. With two batches of students rolling out from the Department and few Alumni pursuing their Higher studies at Different Universities across the globe, indeed I am delighted. Our students outshine in their academic endeavours and their performance has only seen an upward progress in the results as compared to the previous semesters. The Faculty have also worked hard to ensure that our students do well in achieving their goals. We look forward to motivate our students towards achieving holistic growth in terms of compassion, emotional quotient and empathy towards others.



I congratulate the Editorial team for their wonderful effort in compilation and preparation of the magazine

### **Dr Nalini Rebello**

Professor & Head



## DEPARTMENT VISION

To impart technical education and nurture research in Civil Engineering to meet needs of the society

## DEPARTMENT MISSION

1. Deliver curricula for students to meet the national and global demands of industry, society and research
2. Strengthen the practical skills of students through interaction with industry
3. Promote research and consultancy in all aspects of Civil Engineering
4. Provide skilled training in emerging aspects of design and construction
5. Develop in students and staff the spirit of innovation and professional ethics

## PROGRAMME EDUCATIONAL OBJECTIVES

1. To impart to students in depth knowledge of Civil Engineering subjects to solve practical problems using modern techniques.
2. To develop in students the ability to plan, analyze, design and construct structures from the foundation to the superstructure level with cost-effective design methods.
3. To develop in students the ability for successful careers as entrepreneurs and to pursue research.
4. To enable in students the ability to identify issues related to the environment and find suitable solutions.
5. To train students to understand the ethical responsibility of Civil Engineering profession and apply relevant code for engineering practice while delivering service to the nation.



## BACKGROUND OF THE DEPARTMENT

The Department of Civil Engineering started in the year 2012 with the first batch of undergraduate students graduating in 2016, has currently 62, 66, 67 & 53 students in final, pre-final, second and first year respectively. The Civil Engineering Department aims to produce graduate engineers equipped for careers in the public and private sector encompassing areas such as Structural Engineering, Geotechnical Engineering, Water Resources, Transportation, Environmental and Construction Industries. The faculty is well trained in all major specializations of Civil Engineering. Spacious and well equipped state-of-the-art laboratories and computing facilities are the mainstay of the Department. Frequent visits by professionals from the construction industry and guest lectures by visiting faculty provide practical experience and keep students abreast with the latest advancements. Apart from the syllabus, extra activities like manual modeling and 3D AutoCAD modeling of structures are also conducted. The Department also offers consultancy services for soil testing and concrete testing to construction sites in and around Mangaluru. About 200 sq m of lab area for Environmental Engineering as well as for CAD lab, have been built during the academic year 2015-2016.



## ACTIVITIES

### INAUGURATION OF 'NIRMAN'

The inauguration of Civil Engineering Students Association – NIRMAN for the Academic Year 2016-17, was held on 31st, August, 2016. I. Dr K.V. Rao, Director, Regional Science Centre, Pilikula Nisarga Dhama, graced the occasion as the Chief Guest. Rev. Fr Rohith D'Costa, Assistant Director of SJEC, presided over the function. Dr Rio D'Souza, Vice Principal – SJEC was the guest of honor.



## ENGINEER'S DAY

On the occasion of Engineer's day, the department had organized four different competitions for the students of all the semesters:

Model Making Competition, namely, 'Structural models' was won by, V Semester Students. The Poster Making Competition, 'New Trends in Building construction' was won by V Semester and the third place by VII Semester students respectively.

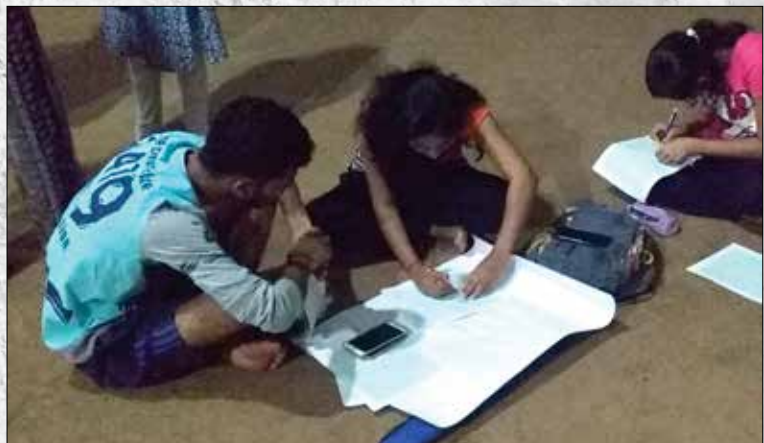
Paper Presentation competition was won by Ms Deekshitha K and Ms Vishika Keshava of V Semester students in the order of first and second place respectively.

Free hand Drawing of Civil Structures was won by Ms Sree Vidya.

## EXTENSIVE SURVEY CAMP

An Extensive Survey Camp for the academic year 2016-2017 for V semester students of Civil Engineering Department was held at Bayar, Kasargod District, Kerala. The Inauguration of the camp was held on 15th January 2017 in Bethania Hall. A group of 63 students were accompanied by all Civil Engineering Faculty. During these ten days students were trained to handle practical difficulties of surveying, which they may face during their profession in future.

Few tasks assigned to the students were, New tank Project, Old Tank Project, New Road Alignment Project, Town planning and water supply Project to Village. While executing these projects, a detailed hands on training was given on Total Station, which is a most essential modern digital equipment in Surveying department. Students enjoyed a pleasant stay for 10 days and returned back to the college with only happy memories. Later they presented before the management, the projects they have carried out during the camp as well as office work carried out back in the college.



## INVITED LECTURE ON INDIAN VAASTU-A SCIENTIFIC APPROACH BY ER RAGHAVENDRA HOLLA

The Civil Engineering Students' Association, NIRMAN organized a technical talk on Indian Vaastu-A Scientific Approach by, Er Raghavendra Holla, Assistant Professor at MIT Manipal on 21st September, 2016 at Bishop Aloysius Paul Hall at 2:00 pm.



Er Raghavendra Holla, said in his talk that Vaastu Sastra has become a money making means rather than a scientific one, though there are certain specific reasons behind following Vastu, but which are deliberately unrevealed to confuse the public.

## INVITED LECTURE ON PILE FOUNDATION BY DR SRINATH SHETTY

Dr Srinath Shetty from NMAMIT - Nitte delivered a talk on Pile Foundation- Design and Construction on 18th March 2017, between 2:00 -4:00 PM. Dr Nalini Rebello welcomed the guest to the program.

Dr Srinath Shetty, in his talk, spoke about the circumstances in which Pile Foundations are used, the types of pile foundations based on the method and type of construction.



## INDUSTRIAL VISIT TO SEWAGE TREATMENT PLANT, KAVOOR, MANGALURU

The Department of Civil Engineering organized a one-day industrial visit to Sewage Treatment Plant, Kavoor, Mangaluru on 8th October 2016 for VII Semester students. Two faculty members accompanied a group of 34 students.

The main objective of the visit was to make students aware of the onsite process and the various waste water treatment processes carried out in the municipal treatment plant. The students were explained about every activity happening in the treatment process and also were exposed to see live functioning of units



## INDUSTRIAL VISIT TO MASTER PLANNERY – PUTTUR

The Department of Civil Engineering at SJEC organized a one-day Industrial visit to Master Plannery, Puttur on 7th October, 2016 for V Semester students. Three Faculty members accompanied a group of 59 students.



Students observed the process of manufacturing various concrete products such as, tiles, computer tables etc. They also witnessed construction of low cost houses.

Mr Anand Kumar S. K., the Director of Master Plannery advised the students to come up with new innovation in making products of concrete than wood, so as to save our forests. The exposure to industrial practices was an invaluable source of information for the students.

## INDUSTRIAL VISIT TO NIRMITHI KENDRA, SURATHKAL



The Department of Civil Engineering at SJEC organised an industrial visit to Nirmithi Kendra – Surathkal, Mangaluru on 1st October 2016 for its second year students. A total of 70 students participated in the visit. The visit was aimed at enhancing the knowledge and visualization of the use of alternative building materials with appropriate technologies.

Er Rajendra Kalabavi welcomed the students and faculty. The visit helped the students in understanding many alternative technologies which would reduce the cost of construction and conserve energy by recycling of waste materials.



A Model House made up of cost effective building materials was shown to the students. Also the practical aspects of construction were explained by giving on-site demonstration of an arch construction.

A rain harvesting project executed within the campus was also explained to students.





## FACULTY ACHIEVEMENTS

### **Dr Nalini Rebello**

Attended Two days workshop on “Practical Approach to Recent Advancements in Civil Engineering and Sustainable Development” organized by the Department of Civil Engineering, NMAM Institute of Technology, Nitte on 12th and 13th January 2017.

Presented a paper in the International Conference on Geotechniques for Infrastructure Projects GIP-2017 organized by Department of Civil Engineering, LBSITW, Thiruvananthapuram in association with Indian Geotechnical Society, Thiruvanthapuram Chapter and Sponsored by TEQIP – 2 on 27th and 28th February 2017.

### **Mr Govinda Krishna M**

Attended Two days workshop on “Practical Approach to Recent Advancements in Civil Engineering and Sustainable Development” organised by the Department of Civil Engineering, NMAM Institute of Technology, Nitte on 12th and 13th of January, 2017.

### **Ms Bhavya**

Attended Ambuja Concrete Mix Deign workshop at Panambur held on 23rd and 24th August 2016.

### **Mr Manjunath B**

Attended Ambuja Concrete Mix Deign workshop at Panambur held on 23rd and 24th August 2016.

### **Ms Apoorva K V**

Presented a paper in the International Conference on Geotechniques for Infrastructure Projects Gip-2017 organized by Department of Civil Engineering, LBSITW, Thiruvananthapuram in association with Indian Geotechnical Society, Thiruvanthapuram Chapter and Sponsored by TEQIP – 2 on 27th and 28th February 2017.

### **Mr Prashant Kurdekar**

Attended National Seminar on “Swatchh Bharath Drive for Solid Waste Management” to commemorate the birthday of Sir M Visvesvaraya as Engineer’s Day 2016 held on 23rd September 2016 at SJB Institute of Technology in association with IWWA and IPHE.

## PUBLICATIONS

### Proceedings of National / International Conferences

Sl. No.	Authors Name	Title	Conference Details (Date, Conference Name)
01	Dr R Shivashankara , Dr V R Sastry and Dr Nalini Rebello	Tunnel-soil-structure interaction with blast loads of varying intensities	Proceedings of the International Conference on Geotechnical Engineering, Colombo, 495-498, 10th – 11th August 2016.
02	Dr Nalini Rebello and Ms. Apoorva K V	Effect of Geosynthetics on reduction of displacement and acceleration induced due to vibrations in the presence and absence of Tunnels	Proceedings of the International Conference on Geotechniques for Infrastructure Projects GIP – 2017, Thiruvananthapuram, 27th and 28th February 2017.

### Journals

Sl. No.	Authors Name	Title	Publication details (Journal, Volume, Page No. and Year (National / International Journal))
01	Dr Nalini Rebello, Dr R Shivashankara and Dr V R Sastry	Response of strata and buildings to blast induced vibrations in the presence and absence of a tunnel.	Journal of Geotechnical and Geological Engineering, Springer Publications, 34, 1013–1028, 2016.



## FACULTY DEVELOPMENT PROGRAM

The Department of Civil Engineering at SJEC organized a Two Days Workshop on STAAD.Pro on 28th and 29th June, 2017. The Workshop aimed at providing a platform to enhance knowledge on the software STAAD.Pro, which is a structural analysis and design computer software

The inauguration of workshop was held at Bishop Aloysius Paul Hall on 28th June, 2017 at 9:30 am. Mr Reece and Mr

Shawn led the prayer. The programme was presided by Rev. Fr Wilfred Prakash D'Souza, Director - SJEC, Rev. Fr Rohith D'Costa, Assistant Director SJEC and Dr Joseph Gonsalvis, Principal SJEC were the guest of honour.



Dr Nalini Rebello, HOD, Department of Civil Engineering and Ms Apoorva K V, Assistant Professor and Convener of the Workshop were also present on the dais. Dr Nalini Rebello welcomed the gathering. The introduction about the workshop was provided by

Mr Govinda Krishna M., Assistant Professor of the Department. Dr Joseph Gonsalvis emphasized on the importance of structural elements in Civil Engineering. Rev. Fr Wilfred Prakash D'Souza in his presidential address mentioned about the innovations in technology over the years.

In the workshop, 5 external registrants and all Civil staff along with the final year students had participated. There were 5 sessions. First session was delivered by Mr Govinda Krishna, the second by Mr Manjunath and remaining sessions by Mr Chitharanjan M.



## Events conducted under Tech Fest TIARA – 2016-17

Department of Civil Engineering had conducted five events during a two - day National Tech Fest TIARA 2017 organized by SJEC, Vamanjoor for students of SJEC and the students from in and around colleges of Karnataka.

### Innovative Mind

“Innovative Mind”, a paper presentation competition, had been conducted by the Department of Civil Engineering on the occasion of TIARA-2017. Twelve teams presented their papers. Dr Nalini Rebello, HOD, Department of Civil Engineering and Ms. Ivy Savia Dantis, Assistant Professor, Department of Civil Engineering were the judges for the event. V Semester students, won the first place while the second place was bagged by VII Semester students

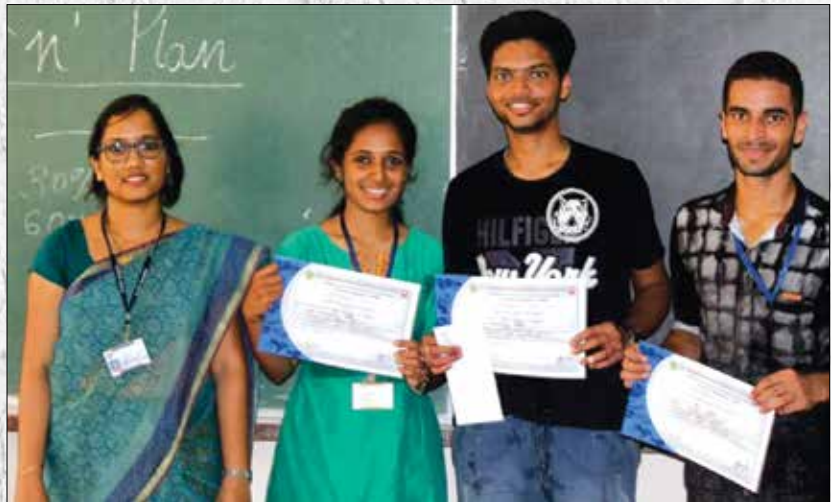


### Bridge It

“Bridge It was a competition for students to construct a bridge by using Popsicle sticks, thread, adhesive (Fevicol) etc. and the time allocated was three hours. Sixty teams were registered for the event. Mr Pruthvi Loy Rozario Serrao, Assistant Professor, Department of Mechanical Engineering and Mr Mithun, Assistant Professor, Department of Civil Engineering judged the event. Mr Saquib and Mr Sameer of SJEC, won the first place and the second place was bagged by Mr Shubham Kumar and Mr. Sugandh Kumar of SJEC. Judgments criteria were based on creativity, aesthetics and presentation.

## Walk N Plan

Walk N Plan, a competition conducted by Department of Civil Engineering on 23-02-2017, in which students had to find the area of a building without using any measuring devices such as tape, chain, apps, calculator etc. and time allocated was 2 hrs. Forty six teams registered for the event. Mr Vinod T D'Souza, Assistant Professor, Department of Civil Engineering was the judge for the event. Mr Shubham Kumar and Mr Sugandh Kumar of SJEC won the first place and the second place was bagged by Mr Brindon D'Souza and Royston Dsouza of SJEC. Judgments criteria were based on time taken and accuracy of result.



## Battle of Time

"Battle of Time" a time management skilled event, had been organized on 23rd February at 2.00pm at Bishop Aloysius Paul Hall. The maximum number of participants in a team was two. Totally 37 teams registered for the event. First round of competition was on general quiz which was judged based on the points and was also elimination round. Sixteen teams have been selected for final round. Totally there were four rounds in the finals. The

event was judged based on the score and the time elapsed to complete the task. Ms Rhea Maria Lobo and team of SJEC and Mr Amarnath Shenoy and team of Canara Engineering College won first and second place respectively.

## STUDENTS ACHIEVEMENTS

### Placement

Three of the students of Final Year were placed in different companies as listed below:

Sl. No	Name of the Company	Name of the students placed
1	Indian Navy	Ms Megha Rachel Kurian
2	Hinduja Global Solutions	Mr Jackson Jabadurai Ms Kavya S Kumar
3	IBM	Ms Megha Rachel Kurian

Mr Shawn Aluersan Pereira, Ms Apoorva Kamath, Ms Sharon Noronha, Ms Iryl Avita Lasrado, Ms Sanjana Rao, Ms Abhijina Yashwanth and Mr Gaurav Maheshwari participated in the Technical Fest "TECHNIDARSHAN- 16" organised by NMAMIT, Nitte on 21st ,23rd and 24th October 2016.

Ms Vishika Keshava and Mr Abhijith Acharya U P Presented the paper in the Technical Fest "TECHNIDARSHAN- 16" organised by NMAMIT, Nitte on 23rd October 2016 title on "Cellular Lightweight Concrete"

Ms Deekshitha K and Ms Harshitha B M Presented the paper in the Technical Fest "TECHNIDARSHAN- 16" organised by NMAMIT, Nitte on 23rd October 2016 title on " Soil Stabilization".

## Outgoing Batch 2016-2017



## STUDENTS ACHIEVEMENTS

The Project Exhibition and Competition for the final year Civil Engineering Students was organized on 26th May 2017 under the banner of Technova 2017. The event commenced with a brief welcome note in the board room followed by a brief introduction of the Judges in the Department.



In the Civil Engineering Department, there were 15 teams in total participating in the competition. Seven projects were experimental basis while four were software based

and remaining were case study based. The external judge of the event was Mr Anil Hegde, Proprietor of Vimal Anil Structural and Survey Consultants - Mangalore and the Internal Judge was Mr Chitharanjan M,



Assistant Professor of Civil Engineering Department.

The winners were Mr Parashuram & Group, Mr Shashank & Group and Ms Megha

Rachel Kurian & Group in the order of I, II and for Innovative project respectively. The exhibition was open till 5:00 PM for the visitors.

HAPPY READING .