EDIFICE

NEWSLETTER OF THE DEPARTMENT OF CIVIL ENGINEERING

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EDIFICE

The Half Yearly Newsletter of the Department of Civil Engineering, SSN College of Engineering

EDITORIAL TEAM

Dr. S Ramana Gopal

Professor & Head of the Dept.

Ms. Sumetha R

Assistant Professor

Saranya S, IV yr.

Gokul Krishna J, III yr.

Student Editors

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FROM THE HOD's DESK

Warm Greetings to all,

The year 2018 saw the fourth graduating class of civil engineers from our institute and I am extremely pleased that 26 students have been placed and six students have secured admission to pursue higher studies both in India and abroad. Through the continued efforts of our students and faculty, we have successfully conducted a series of activities which includes a National Conference on Advances in Civil Engineering (ACE-2k18), a Workshop, a Seminar and construction site visits. The faculty members have published 30 papers in indexed journals and conference proceedings during the AY2017-2018, which includes 15 publications along with the students as a result of internally funded research projects. I wish to congratulate all of them for their contribution which brings laurels to the department. More than fifty students have attended inplant training/internship in major companies like CMRL, L&T, AFCONS, Dow Chemicals, during their summer vacation

I appreciate and thank the editorial team for their sincere effort in bringing the fifth edition of the news letter. I wish all our students to attain great success in their future endeavours.

Dr. S. Ramana Gopal

JOURNAL PUBLICATIONS

Dr. S Ramanagopal published the paper, "Case Study on Double Tube Stub Columns", in the Indian Journal of Science and Technology, Vol. 11 (21), Jun 2018, pp 1-9.

Dr. Y K Sabapathy, Ramya Sajeevan*, J Rekha*, V Vishal* (*2013-17 B.E. Civil Engg.), S Sabarish** (**2016-20 B.E. Civil Engg.) and D Revathy*** (***2012-16 B.E. Civil Engg.), published the paper, "Impact Resistance of Sisal Fiber Reinforced Concrete", in the International Journal of Engineering and Technology, Vol. 7 (2), May 2018, pp 742-745.

Dr. Y K Sabapathy, Priyadarshini K P*, Manimanickam R M*, V Srilekha* (*2015-19 B.E. Civil Engg.), S Sabarish** (**2016-20 B.E. Civil Engg.) and D Revathy*** (***2012-16 B.E. Civil Engg.), published the paper, "Strength Properties of Sisal Fiber Reinforced Concrete", in the International Journal of Science and Innovative Engineering and Technology, Vol. 3, May 2018.

Dr. Y K Sabapathy and D Ravichandar, published the paper, "The Effectiveness of Surface Modification in Steel Slag using Granite Powder", in the Research Journal of Pharmaceutical, Biological and Chemical Sciences, Vol. 9 (1), Jan-Feb 2018, pp 415-420.

Dr. Y K Sabapathy, S Santhanabharathi*, M Bhagirathan* (*2013-17 B.E. Civil Engg.), Priyadarshini K P**, Manimanickam R M**, Durga Abishek K** (**2015-19 B.E. Civil Engg.) and Pown Krishnan B*** (***2014-18 B.E. Civil Engg.), published the paper, "Behaviour of Concrete Short Columns with GFRP Reinforcements", in the International Journal of Civil Engineering and Technology, Vol. 9 (1), Jan 2018, pp 455-461.

Dr. Y K Sabapathy, Dr. P Sangeetha, V P Haripriya*, D Revathy* (*2012-16 B.E. Civil Engg.), D Ravichandar and S Sathyapriya** (**2014-18 B.E. Civil Engg.), published the paper, "Experimental Study on Strength of Slag Mortar by Replacing the Fine Aggregate with EOF Slag", in the International Journal of Civil Engineering and Technology, Vol. 8 (12), Dec 2017, pp 850-858.

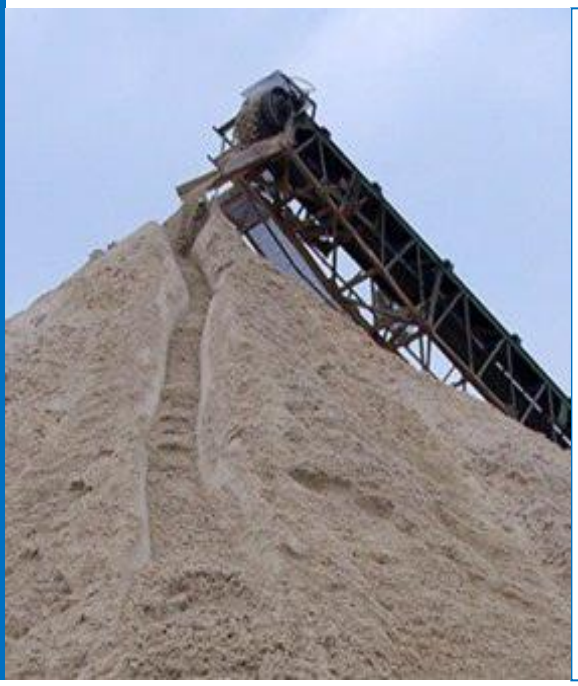
JOURNAL PUBLICATIONS (contd.)

Dr. B Mahalingam, Kannan Meena*, N Prathibha Devi* and K Dharmasekaran* (*2015-19 B.E. Civil Engg.), published the paper, "Green Buildings in India – Rating Systems, Implementation and Cost Benefit Analysis – A Literature Review", in the Journal of Civil Engineering and Environmental Technology, Vol. 5 (2), Jan-Mar 2018, pp 68-72.

Dr. R Vijayalakshmi and Dr. S Ramanagopal, published the paper, "Structural Concrete using Expanded Clay Aggregate: A Review", in the Indian Journal of Science and Technology, Vol. 11 (16), Apr 2018, pp 1-12.

Dr. P Sangeetha and Dr. R Senthil, published the paper, "Experimental Study on the Service Load Behaviour of the Composite Space Truss", in the Journal of Structural Engineering, Vol. 44 (6), Feb-Mar 2018, pp 44-62.

Dr. P Sangeetha and Dr. R Senthil, published the paper, "Experimental Behaviour of Steel Tubular Columns for Varying In-filled Concrete", in the Archives of Civil Engineering, Vol. 63 (4), Mar 2018, pp 149-160.



M-Sand: What is it?

Manufactured sand (M-Sand) is a substitute of river sand and is produced from hard granite stone by crushing. The crushed sand is angular with grounded edges, washed and graded for use as a construction material. The size of manufactured sand (M-Sand) should less than 4.75 mm.

Due to the depletion of good quality river sand for the use of construction, the use of manufactured sand has increased.

Manufactured sand can be of a coarser and angular texture than natural sand, which is smooth and rounded due to natural gradation. This can lead to more water and cement requirement to achieve the expected workability.

CONFERENCE PRESENTATIONS

Dr. Y K Sabapathy, T Nithila* (*2011-15 B.E. Civil Engg.), K Vaishnavi**, A Shrinidhi**, V Srilekha** and A Jai Vigneshwar** (*2015-19 B.E. Civil Engg.), presented a paper titled, "In-plane Shear Behaviour of Unreinforced Brick Masonry Strengthened by Bio-Composite Fabrics", in the International Conference on Contemporary Engineering and Technology, held at Prince Shri Venkateshwara Padmavathi Engineering College, Chennai on 10th & 11th March, 2018.

Dr. Y K Sabapathy and S Sabarish* (*2016-20 B.E. Civil Engg.), presented a paper titled, "Diagonal Load Test on Jute Fabric Strengthened Masonry Wall", in the National Conference on Advances in Civil Engineering, held at SSN College of Engineering on 1st March, 2018.

Dr. B Mahalingam, Dr. P Sreehari, Dr. Srinath R, Dr. S Ramanagopal and Dr. Mohammed Haneefa K, presented a paper titled, "Mechanical Characterization and Robustness of Self Compacting Concrete with Quarry Dust Waste and Class-F Fly Ash as Fillers", in the International Conference on Engineering Materials, Metallurgy and Manufacturing, held at SSN College of Engineering on 15th & 16th, February, 2018.

Dr. Rajkumar R, Manoharan R, Gokula Krishnan B* and Aravindh R* (*2015-19 B.E. Civil Engg.), presented a paper titled, "Retrofitting of Reinforced Concrete Beams using Polymer Ferrocement Laminates – Laboratory Model Study and Finite Element Analysis", in the International Conference on Engineering Materials, Metallurgy and Manufacturing held at SSN College of Engineering on 15th & 16th, February, 2018.

Dr. Rajkumar R and Nirmala R, presented a paper titled, "Experimental and Analytical Studies on Buried Un-plasticized Poly Vinyl Chloride Pipe" in the International Conference on Sustainable Technologie in Building and Environment, held at Sathyabama University, Chennai on 23rd & 25th, January, 2018.

CONFERENCE PRESENTATIONS (contd.)

Dr. Rajkumar R, A Surya Teja* (*2013-17 B.E. Civil Engg.), Gokula Krishnan B** and Aravindh R** (**2015-19 B.E. Civil Engg.), published a paper titled, "Field Investigation on Structural Performance of the Buried UPVC Pipes with and without Geogrid Reinforcement", in the AIP Conference Proceedings (Feb 2018) of the International Conference on Engineering Technology, held at Putrajaya, Malaysia on 23rd & 24th, November 2017.

Dr. Srinath R, Dr. B Mahalingam, Dr. P Sreehari and Dr. Mohammed Haneefa K, presented a paper titled, "On Mechanical and Thermal Properties of Concrete with Rubber as Partial Replacement to Well Graded Conventional Aggregates", in the International Conference on Engineering Materials, Metallurgy and Manufacturing, held at SSN College of Engineering on 15th & 16th, February, 2018.

Dr. Sivapriya S V, Jai Vigneshwar A*, Shrinidhi A*, Prathibha Devi N*, Bala Murukan R* and Vaishnavi K* (*2015-19 B.E. Civil Engg.), presented a paper titled, "Parametric Study of Soil-Structure Interaction Properties of Pile Subjected to Lateral Load", in the National Conference on Advances in Civil Engineering, held at SSN College of Engineering on 1st March, 2018.

Dr. Sivapriya S V, Dr. Sundaravadivelu R and Dr. Gandhi R, presented a paper titled, "Design of Piles for a Berthing Structure on Artificial Slope", in the 4th International Conference in Ocean Engineering, held at IIT Madras, Chennai on 18th-21st February, 2018.

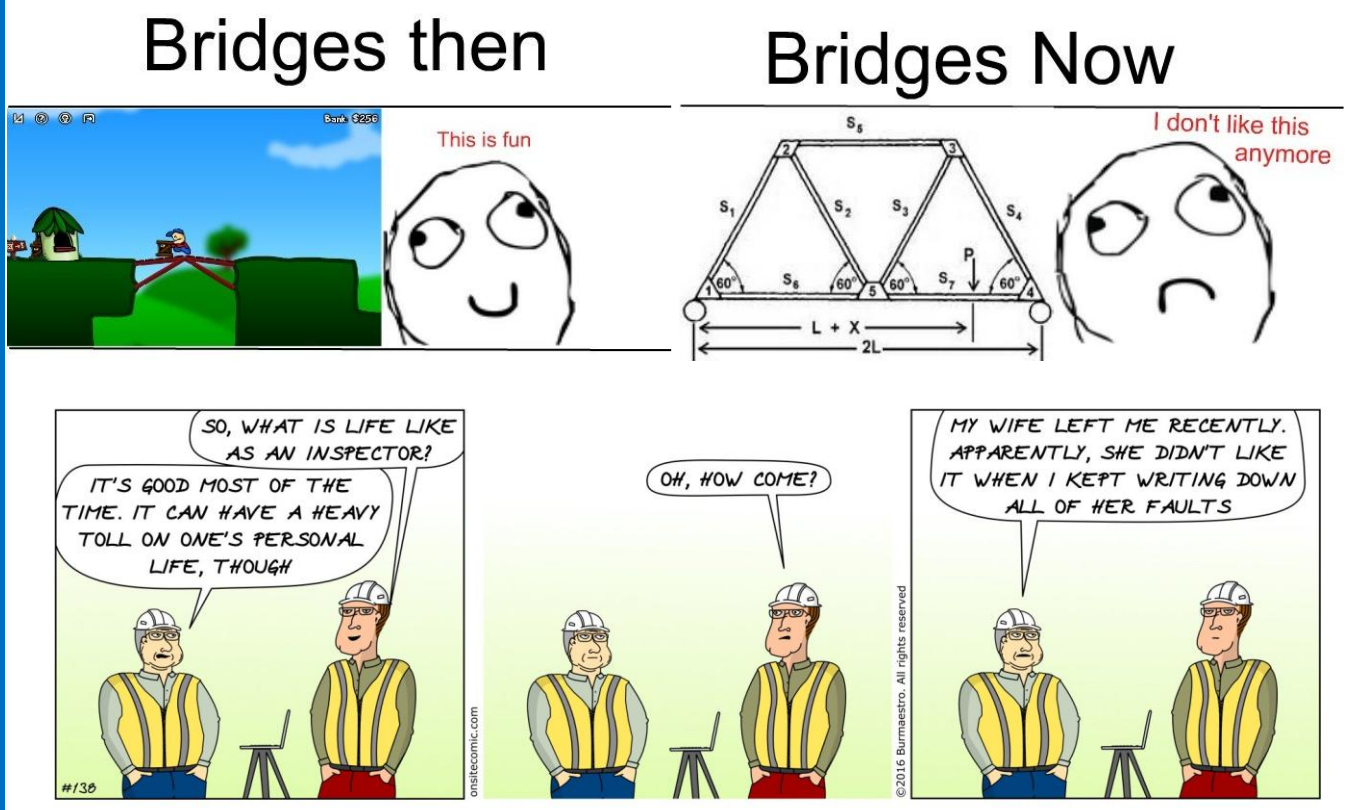
Dr. Sivapriya S V and N Charumathy, presented a paper titled, "Effect of Crumb Rubber on Inorganic and High Compressible Clay", in the International Conference on Engineering Materials, Metallurgy and Manufacturing, held at SSN College of Engineering on 15th & 16th, February, 2018.

CONFERENCE PRESENTATIONS (contd.)

Dr. Sangeetha P, Dr. Senthil R and Naveen Kumar P* (*2011-15 B.E. Civil Engg.), presented a paper titled "Influence of Design Parameters on Composite and Non-Composite Space Truss Analysed using ANSYS", in the International Conference on Engineering Materials, Metallurgy and Manufacturing, held at SSN College of Engineering on 15th & 16th, February, 2018.

EVENTS ATTENDED

Dr. Sivapriya S V participated in the Indian Geotechnical Society's Workshop on 'Rock Engineering Issues and Future Challenges' held at IIT Madras, Chennai on 9th June, 2018.



EXTERNAL RECOGNITION

Dr. S Ramanagopal attended the 24th meeting of the Board of Studies of Faculty of Civil Engineering for Affiliated Institutions of Anna University, Chennai on 28th February, 2018. The agenda for the meeting was to approve the curricula and syllabi for the UG (CBCS) degree programmes under R2017.

Dr. Vijayalakshmi R received recognition as Supervisor from Anna University, Chennai to guide Ph.D./MS (by research) students in the areas of Ocean Management, Water Resources, Disaster Mitigation and Management.

Dr. Sivapriya S V delivered a lecture titled 'Top Down Constructions' in the One Day National Workshop on Modern Construction Techniques in Civil Engineering at Jeppiaar SRR Engineering College, Chennai on 25th January 2018.

Dr. Sivapriya S V reviewed a manuscript titled "Optimization of Plasticity Indices of Fibre Reinforced Fine Grained Soil using Taguchi Technique" for KSCE (Korean Society of Civil Engineers) - Journal of Civil Engineering.

Dr. Sangeetha P received recognition as Supervisor from Anna University, Chennai to guide Ph.D./MS (by research) students in the areas of Steel Concrete Composite Structures, Space Truss Structures, FEA , Composite Construction.

Dr. Sangeetha P is a Doctoral Committee member for Ph.D. scholars Ms. V Revathy at Vels University, Chennai and Ms. R Chitra at Bharath University, Chennai.

Dr. Sangeetha P is an Editorial Member of the Journal "Nanoscience and Nanotechnology", a multidisciplinary open access peer-reviewed journal covering fundamental and applied research in the field of nanoscience and nanotechnology of Whioce Publishing Pte. Ltd.

FACULTY UPDATES

FAREWELL AND WELCOME

It is bittersweet to bid farewell to two faculties from the department – **Dr. S Muthulingam and Dr. Suryakanta Biswal**. Dr. S Muthulingam has joined as Assistant Professor, Department of Civil Engineering, Indian Institute of Technology Ropar, Punjab. Dr. Suryakanta Biswal has joined as Post-Doctorate Research Fellow – Structural Health Monitoring in the School of Computing and Engineering at the University of West London, UK. We wish them the best.

Meanwhile, we are thrilled to welcome a new faculty to the department, **Dr. Jijo James**. He did his Bachelor's Degree in Civil Engineering at Tagore Engineering College, affiliated to Anna University, Chennai and passed out in 2006 securing the University third rank. Thereafter, he pursued his Master's Degree in Soil Mechanics and Foundation Engineering from College of Engineering Guindy, Anna University, which he obtained in the year 2008, while securing the University second rank.

He immediately joined Tagore Engineering College in the same year as Lecturer in Civil Engineering and was promoted to Assistant Professor in the year 2010. He obtained his Doctoral Degree in the Faculty of Civil Engineering from Anna University, by successfully defending his thesis titled "Strength, Mineralogy and Microstructure of a Lime Stabilized Expansive Soil Amended with Waste Materials" in March 2017. He is a recognized supervisor for guiding doctoral research scholars under Anna University. His areas of interest include soil stabilization, stabilized soil blocks, solid wastes in soil engineering and geo-environmental engineering.

He has authored/co-authored 24 papers in peer-reviewed international journals and 18 papers in various national and international conferences. He is a reviewer for international journals like Journal of Solid Waste Technology and Management, Disaster Advances, International Journal of Pavement Research and Technology, The Open Civil Engineering Journal and Journal of Scientific Research and Reports. He has delivered invited lectures for institutions like the Regional Training Institute of Central Public Works Department, Govt. of India and M.G.R. University.

3rd National Conference on Advances in Civil Engineering (ACE '18)

The 3rd edition of the National Conference on Advances in Civil Engineering was held on 1st March, 2018. Dr. S Ramanagopal, Professor and Head of the Department, was the convenor and the conference co-ordinators were Dr. Sivapriya S V and Dr. Survakanta Biswal.

The One Day National Conference was inaugurated by Dr. S R Satishkumar, Professor, Structural Engineering Division, Department of Civil Engineering, Indian Institute of Technology Madras, Chennai. Following the invocation song and the formal lighting of the lamp, the conference proceedings were released by the chief guest, Head of the Department and the co-ordinators. Dr. S Ramanagopal delivered the welcome address.

This was followed by the key note address by Dr. S R Satishkumar on the topic of "Steel in Construction". His talk emphasized on bridging the gap between the class room and the field.

His lecture covered the applications of steel in recent years in the construction sector, its advantages, state of affairs and the future scope in India. He illustrated the importance of moving on to steel as a primary material in construction using case studies from India as well as outside India.

The conference saw contributions in various fields of Civil Engineering from a plethora of institutions. In addition to the paper presentation sessions, this year, corporate presentations were also arranged. Representatives from HEICO, Indus Instruments and Aimil Ltd. presented a brief overview on the advanced test equipments, survey instruments and services offered by them to the participants.

Seminar on "Water Resources"

A one day seminar on "Water Resources" was conducted by the department on 14th February, 2018. The event was co-ordinated by Dr. P Sreehari and attended by the II and III year, B.E. Civil Engineering students.

Water Resources Engineering is the quantitative study of the hydrologic cycle - the distribution and circulation of water linking the earth's atmosphere, land and oceans. It is concerned with the development, operations and maintenance of water resource systems. In this day and age, water resource systems are something we rely on day to day basis of our life. Civil Engineers play a vital role in the optimal planning, design and operation of water resource systems. Water Resources Management is a very important issue from several angles such as development of water bodies for future, protection of available water bodies from pollution and over exploitation and to prevent disputes.

Two expert lectures were delivered by Dr. R Balamurugan and Dr. R Saravanan, Associate Professors, Centre for Water Resources, Anna University, Chennai.

Dr. R Saravanan, helmed the forenoon session, and addressed the gathering on the topic of 'Water Resources Engineering'. His detailed lecture helped the students to understand the origin of Water Resources Engineering in India, why its study is important, the various processes and the ramifications of poor planning and execution. He emphasized the need for an interdisciplinary approach for a holistic Water Management System. The water crisis at Cape Town, South Africa was taken up as a case study and explained in detail by Dr. R Saravanan.

In the afternoon session, Dr. R Balamurugan delivered a lecture on 'Irrigation Engineering'. He spoke about the water market and how it has an impact on the allocation of available resources. His lecture also detailed how to estimate the water consumption and the various irrigation methods and management.

Faculty Seminar

Faculty seminar was conducted on 6th January 2018. Dr. Suryakanta Biswal, Associate Professor, gave a talk on "Prediction of Long-time Prestress Loss in Concrete Structures based on Short-time Measurements".

He explained how empirical models from codal provisions and standard recommendations are normally used for prediction of long-time creep and shrinkage in concrete structures. Most of the researchers and analysts have been inclined to select a single model, rather than taking all possibilities into consideration i.e. the model selection is made based on the hardly realistic assumption that we can certainly select a correct model.

He also briefed about the vibrating beam strain gauge designed and fabricated in the laboratory, for measuring the existing prestressing force in the concrete structures and experiments from North-Western University database, and concrete beams and slabs cast in the laboratory. A brief overview of various damage detection techniques developed was presented in the talk. The advantages when uncertainties in measurements are expressed through interval bounds or imprecise probability bounds were emphasized. The talk concluded with future research directions.

Industrial Visit – Pile Load Tests

II year and III year B.E. Civil Engineering students visited the construction site of the Computer Science and Engineering department building and got to see the Static Pile Load Test on 31st January and 1st February, 2018 respectively. The III year B.E. Civil Engineering students visited the construction site again on 22nd February, 2018 and got to see the Dynamic Pile Load Test. The visit was co-ordinated by Dr. Sivapriya S V with Mr. Sivakumar from the HoCF team. The students were accompanied by Dr. Sivapriya S V and they gained first-hand exposure as to how pile load tests are conducted in-situ.

Shallow foundations are used in case of small buildings or structures, which carry lesser loads and hence the loads are dissipated into the soil mass at much lower depth. However, when we are considering large structures, which carry heavy loads, the loads are dissipated at greater depths, where, usually the soil bearing capacity is quite high. One guideline of differentiating between the shallow and deep foundations is that in case of the deep foundations the depth of foundations is more than the dimension of the structure. The most common type of deep foundation is pile foundation.

Pile load test is the most reliable of all the approaches to determine the allowable load on the pile. This test is done on test piles to determine the safe load or allowable load or ultimate load bearing capacity.

Ordinary static pile load tests using reaction piles are most commonly used in India. Owing to increasing time and cost, particularly with the difficulties associated with transporting static load testing accessories into congested city centres and the lack of space on many sites, contractors are seeking an alternative system for pile testing. The tendency is for contractors to use dynamic techniques in order to supplement ordinary static tests.

Dynamic load test

Static load test

In recent times, dynamic load test is increasingly being used for pile load testing. Compare to static pile loading test, dynamic load test offers a considerable savings of time, cost and requires less space. The most attractive advantages are the cost of the test is much cheaper as compared with the cost of ordinary static load test and the duration of the test is very short. The dynamic test is common for driven piles mainly because similar driven or hammer used for the pile installation can be used for the test. As for the cast-in-situ pile especially the large diameter piles, the dynamic test is relatively less common because extra effort to bring in hammer for the test is required. In addition, design pile capacity for large diameter cast-in-situ pile is generally large; a very heavy hammer is required. As a general guideline, in order to verify the pile capacity, the required hammer weight is about 1.5% of the pile static load carrying capacity.

The load is applied by means of a remote controlled hydraulic jack taking reaction against a loaded plot form. The test is usually applied in increments of about 20% of the assumed safe load. Settlement is recorded with at least three dial gauges of sensitivity 0.02 mm. Each stage of loading shall be maintained till the rate of movement of pile top is not more than 0.1 mm per hour.

Industrial Visit – Ready Mix Concrete (RMC) Plant

II year B.E. Civil Engineering students visited the RMC Batch Plant inside our college campus on 20th March, 2018. The visit was co-ordinated as part of Indian Concrete Institute's (ICI) Student Chapter with Mr. Sivakumar from the HoCF team. The students were accompanied by Dr. B Mahalingam, ICI faculty co-ordinator, and they gained knowledge on the various phases of the process and its operation.

Ready Mix Concrete (RMC) refers to concrete that is specifically batched or manufactured tailored for customers' construction projects. It is a mixture of Portland cement, water and aggregates: sand, gravel, or crushed stone. Ready-mix concrete is batched or manufactured under controlled conditions and hence has higher precision and control.

The students, at first, saw the hopper that stores the cement (capacity 5-10 tonnes) and feeds to mixing tank by a pump which can pump at a speed of 18 m^3/hr. Later, they were divided into groups and saw the storage places for coarse aggregate, fine aggregate and the control unit. From the plant engineer's explanation they came to know that they are using coarse aggregate of 20 mm and 12.5 mm sizes and M- sand as fine aggregate.

Control unit is computerized and operates the whole batching plant. It has prefixed mix designs that are used at the construction site. It weighs the materials and feeds them to mixing tank using pumps. The errors can be easily found as digital display is provided, and checking for errors should be done at least for every two months and changes regarding temperature should be updated for every 6 hours. For every batch 0.3 m^3 of concrete is obtained and for mixing of first batch it takes nearly 7 minutes but later the time is reduced to 2 to 3 minutes.

SSN Gets Autonomous Status

For an institute like ours, where we strive towards achieving world class standards in technical education and scientific research, autonomy is a great power. The University Grants Commission has granted autonomy to SSN College of Engineering for maintaining high academic standards. This was announced by the Minister of Human Resource Development, Shri. Prakash Javadekar at a media briefing in New Delhi on 20th March 2018.

The MHRD press notification posted on 20th March, 2018 states, 'In a historic decision today, the University Grants Commission has granted autonomy to 60 Higher Educational Institutions which have maintained high academic standards.' The 60 Institutions include 52 Universities and 8 colleges in India. We are one among the 8 affiliated colleges, 'which have maintained high academic standards', and also the only affiliated college to be granted autonomy under Category I based on our NAAC score of 3.55. This is recognition of the hard work, dedication and the commitment put in by our faculty, staff and students to ensure high standards of academics and research.

Sports Day

The 19th Annual Sports Day was held on 29th March 2018 at the new International Football Stadium. Shri. Raman Vijayan, Former Indian Footballer was the chief guest for the function.

Sai Pradeep, 2014-18 B.E. Civil Engineering, Sports Secretary, leading the house captains.

Chandramouleeshwar G, 2015-19 B.E. Civil Engineering, lighting the torch.

Deva Raamanathan V, 2014-18 B.E. Civil Engineering, was honoured as the Overall Champion.

The Department of Civil Engineering won the third place in March-Past.


SSN

College Day

The 22nd College Day was held on 4th April, 2018 at the Justice Prathap Singh Auditorium. Mr. Srinivasan Damodaram, Vice president, Banking and Financial IT Services, Cognizant Technology Solutions, was the Chief Guest.

Dharanedharan K S, President, Association of Civil Engineers, presented the Civil Department's annual report. Vighnesh Kumar Shivashankar won the best outgoing student from the Department.

Scholarship Day

The 19th Annual Scholarship Day was held on 5th February, 2018 at the Justice Prathap Singh Auditorium. Hon'ble Justice C T Selvan, Chief Guest at the event and Mr. Suresh Sambandam, Founder, Orangescape Technologies Ltd., Special Invitee distributed scholarships worth Rs. 4 crore to around 540 students. Mr. R Srinivasan, Chairman, SSN Institutions, Mrs. Kala Vijaykumar, President, SSN Institutions, Dr. S Salivahanan, Principal, SSN College of Engineering and Prof. B Srinivasan, Director, SSN School of Management were also present. The students received scholarships across various categories: Rural scholarships, Walk-in-walk-out scholarships, Sports scholarships, Music scholarships, Merit scholarships, Merit-cum-means scholarships and SSN Vidyagyan Scholarships.

Tribute 2018

SSN hosted its annual alumni meet, The Tribute – 2018 on 6th January 2018. The event witnessed participation from over 800 alumni from across batches and programs. This year the theme of the event was "Join the Carnival" and the alumni were treated to a carnival atmosphere on the campus. The highlight of the event was a show by one of India's foremost magicians, illusionists and laser show expert Mr. SAC Vasanth followed by a gala dinner.

Various fun and nostalgic activities were lined up to give the former students a chance to relive their life at the SSN campus. SSN alumni have contributed over Rs. 12 Lakhs in 2017 towards scholarships for supporting disadvantaged students at SSN. The Alumni Avenue was also inaugurated with trees sponsored by alumni.

PLACEMENT UPDATE – 2014-18, B.E. CIVIL ENGINEERING

COMPANY	STUDENTS
Saint Gobain	Akshay Krishnan B
Mu Sigma Technologies	Akshay D Desai
	Sathya Priya S
L&T Infotech	Saravanan A
Maveric	Saravana Kumar A
Accenture	Arun Kumar R
	Dharshika D
	Gautham S
	Rahul Narayan R
	Vignesh B S
Infosys	Dharshana Rajasekhar
	Harika Y
	Mahesh D
	Vigneshwaran S T
Dow Chemicals	Jemshia S Canis
L&T ECC	Adithyan M P
	Ajay S
	Nikhileesh N U
L&T Technology Services	Vignesh N
IDBI Federal Bank	Abinaya K
	Amirtha R
	Baranidharan D
	Deva Raamanathan V
	Sangeetha G
Face-Selection Process	Deva Raamanathan V
Emjay Constructions	Ajith Kumar

HIGHER STUDIES UPDATE

INSTITUTE	STUDENTS	COURSE
University of Melbourne, Australia	Ashwin Muthuraman	ME in Structural Engineering
	Syed Ajmal	ME in Construction Management
University College London, UK	Vighnesh Kumar S	MS in Project and Enterprise Management
Dalhousie University, Canada	Sharon Victor	ME in Environmental Engineering
Delft University of Technology, Netherlands	Surya Teja A	MS in Geo-Engineering
Indian Institute of Management (IIM) Bangalore	Vigneshwaran S T	MBA

IN-PLANT TRAINING AND INTERNSHIPS (IV year)

COMPANY	STUDENTS
Murugappa Groups	R M Manimackam
Dow Chemicals	S Saranya
	P Shobana
AFCONS Infrastructure	R Aravindh
	A Harikrishnan
PEE ENN Constructions	B Gokulakrishnan
	R Aravindh
	A Harikrishnan
Gulf Spic General Trading Company, Kuwait	K P Priyadharshini
Southern Railways (Construction Division)	V R Rakesh Raj
	K Dharmasekharan
Chennai Metro Rail Ltd.	Ajay Kumar
	Annal
	Dinesh Kumar
	Durai Murugan
	Gokul V
	Mohammed Kamal
	Rakesh S
	Ravikumar
	Surya Prakash
Chennai Port Trust	Dinesh Kumar
	Durai Murugan
	Gokul V
	Mohammed Kamal
PWD, Chennai	V Srilekha

IN-PLANT TRAINING AND INTERNSHIPS (III year)

COMPANY	STUDENTS
School of Renewable Energy Tech., Naresuan Univ., Thailand	Gokul Krishna
L&T ECC	K Sai Likitha Hema Naga Sri Pushpa Swetha U Amrutha Vishnu Vardhan Sajid Ali Nithish C N A
L & T Engg. Division & Research Centre	Manjula R
Chennai Metro Rail Ltd.	Kavya Vishwa Santhosh Gayathri Tharanyaa Sweatha Dhivya Deepika Swarna Varshini Ramasamy Revathi Syed Mohammed
Hi-Tech Concrete Solutions	Aadithya Jagadeesh Akilan G S Balasubramaniam A Deveshwar K Kamaleshwari T
L&T Geostructures	Deepak Madhumitha Shriraman Hemanth

CO-CURRICULAR ACTIVITIES – WORKSHOPS

- C Roshini and S Sadhana, IV year, attended the Indian Geotechnical Society's Workshop on 'Rock Engineering Issues and Future Challenges' held at IIT Madras on June 9, 2018.
- Ajith V and R M Manimanickam, IV year, attended the workshop on "Construction and Project Management" held at CEG, Anna University on March 8, 2018.
- Ajith V, R Aravindh, Mukul Anand and Gokula Krishnan B, IV year, attended the workshop on "Chennai Underground Metro Ventilation" held at CEG, Anna University on February 3, 2018.
- Rahul Goenka, IV year, attended the workshop on Ethical Hacking and Information Security held at IISc Bangalore on January 18 & 19, 2018.

CO-CURRICULAR ACTIVITIES – SYMPOSIUMS & COMPETITIONS

- C Roshini and S Sadhana, IV year, won III prize in the Sustainability Challenge held at IIT Madras in June, 2018.
- Raghunandan T S, III year, participated in Chemflux 2018, a National Level Technical Symposium, at SRM Institute of Science and Technology on March 15 & 16, 2018.
- Gokul Krishna, III year, participated in Model Making Challenge and Quiz in CEA Fest, at IIT Madras on March 2 to 4, 2018.
- 2 projects of Manjula R, Hema Naga Pushpa Swetha and Bijivemula Sruthi Reddy, III year, in the themes of Smart Vehicles, and Medical Devices/ Bio-Sensing were selected for video submission in the Smart India Hackathon 2018 - Hardware.

EXTRA-CURRICULAR ACTIVITIES

- Manjula R, III year, was honoured for her achievements while representing Anna University in the Annual Sports Day Celebration 2017-18, at CEG on March 23, 2018.
- Kannan Meena, IV year, was presented with “High Commendation” at the Model United Nations, SRM University on February 8 to 10, 2018.
- Dharmasekaran K and Chandramouleeshwar G, IV year, were the Winners (Badminton) at the sports meet in Shiv Nadar University in February, 2018.
- Chandramouleeshwar G, IV year, was also Winner (Badminton) in the Inter-University CM Trophy, Kamaraj Trophy and Runner in the Tamilnadu Badminton League.
- Dharmasekaran K, IV year, also won the Inter-District Memorial Trophy in Badminton in both Singles and Doubles events.
- U Amrutha, Manjula R and Aadithya Jagadeesh, III year, won the Chess tournament at Sastra University in February, 2018.
- Madhumitha, III year, was a part of the winning Basketball (girls) team at GEC Fest, at Gudlavalleru Engineering College, Vijayawada in February, 2018.

GPA vs Skills

The three letters G P A forms an integral part of an engineer's life whether he approves of it or not. Of late with the ridiculously large number of "engineering graduates" marching out of colleges throughout the country, GPA is invariably used by companies to filter the students. At the same time, there are several discussions which are being held at various forums as to what defines an engineer, GPA or the skills that he possess. Often we find out that a student who had got into a company by virtue of his/her GPA struggles to come in terms with the vagaries of the industry. This is simply because the student has not been able to apply what he has learnt, and the term skill comes into play here. Now, the most obvious question which pops up is how to obtain that skill required to survive in the industry. Doing a valid internship is one way of solving this problem. But most internships are awarded on the basis of the GPA that the student possesses and we are again back to square one.

In my opinion, both GPA and skills are equally important for a student to have a successful career. These days we have students who fail to obtain a good GPA come out with excuses like "*Hey!! Anyways the GPA is of no use!".* Moreover the students who come up with such statements do very little to hone their practical skills and hence put their careers in jeopardy. Then there are certain classes of students who come into college from a background of rote learning in school who just want to score those fancy marks. And invariably, these students are the ones who end up struggling in the industry. This is where the right balance has to be struck. For the students who are looking to pursue higher studies, the GPA could turn out to be the tiebreaker in case the university comes across students with an identical practical or research background. The colleges have their share of responsibility in guiding the student in the right way.

The incomplete curriculum and examination patterns add to the woes as there is a difference between what we should know and what we should learn and the system has clearly failed to recognize this. Every semester we see the rush by the faculties to finish the portions and conduct lots of tests. Sometimes assignments which are given to make students acquire additional knowledge end up being photocopies of each other. Sadly, the examination patterns are such that it offers no scope for a student to test his or her understanding of the concept.

There is an aura of fear surrounding exams in India which is not the case in foreign institutions and this fear of exams tend to put enormous pressure on the students to learn without understanding. Learning to get marks and learning to understand a concept have become two different aspects.

With the competition getting all the more difficult with each passing day, it is very important for students to make him/her employable. And focusing solely on just GPA will not help the case. It is very important for the students to take the right decisions and become productive so that they become “engineers” rather than “engineering graduates”.

HARIKRISHNAN A,

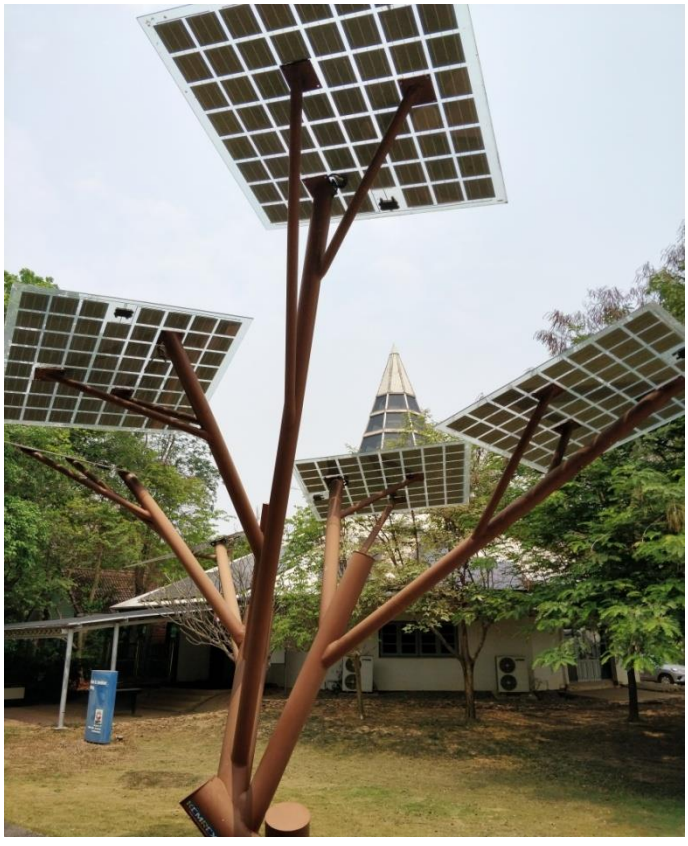
IV yr., B.E. Civil Engg.

Internship at School of Renewable Energy Technology, Thailand

This summer, I had the unique opportunity of visiting the School of Renewable Energy Technology (SERT) department of the Narusean University, Phitsanulok, Northern Thailand for an internship during April 1-7, 2018. At this juncture, I would like to convey how privileged I felt to observe all the undertakings pursued by the department, to initiate some path-breaking improvements in academia.

About SERT

The Energy Park of the university spanning large grounds, houses various forms of renewable energy sources, for research students to work on. Ranging from biomass and biogas machinery to numerously arranged solar panels for electricity production, SERT seemingly elevates the approaches of innovation adopted through renewable energy sources. It mainly focuses on its research and development, especially to solve problems relative to energy crisis, environment and economy.



Facilities

The Biomass Plant is the source of fuel through methane, obtained by fermentation during 28 days. Typically, the biogas plant, which is more sought-after than the former, ensures the adequate combustion of wood to produce smokeless gases of carbon monoxide, hydrogen, and methane for fuel using raw materials like saw dust.

The vast expanse of solar powered panels present in the Energy Park varies in use for low, medium and high capacity heating purpose, as well as electricity production. The heating through solar energy contributes in drying of vegetables, solar cooking, heating of water even through evacuated tubes lined for heating within 10 minutes. A temperature of 100-120 degree Celsius is effortlessly achieved within minutes from solar energy.

As far as energy production is concerned, power is produced in 2 main ways: 1. Thermal approach or through 2. Photovoltaic (PV) Cells. With funding provided from countries like Japan, Germany, The school develops on renewable energy technologies for self-reliance, wide-spread implementation and use. Also, in association with the Government of Thailand, it provides electricity to certain provinces in the country. The whole campus is self-sufficient in electricity, thanks to the solar power generated through the Energy Park.

Another remarkable endeavour the campus has undertaken is the presence of a Building Energy Management System (BEMS) which serves as the energy control management for the whole campus. Started as a seed idea 10 years ago, this venture aims at controlling the electricity and energy conditions of all the rooms of the University automatically through a single database in the computer. This also manages the back-up facilities and air-condition and switch-control facilities as well. This, indeed, seemed to be an extremely progressive facility in here, and the management is keen working on further improvements in the future.

Research and Projects

Renewable energy, unlike how most textbooks patronize, is not an all-out win-win approach with respect to addressing the energy claims. Like all sources, this has tremendous challenges and limitations with respect to its expertise and working conditions. SERT, having realized that, encourage the students to mainly minimize these challenges through research and constantly improve the conditions in which such methodologies can be adopted.

For example, in one of the guest lectures I could attend, the topic of discussion was aimed at the case studies of Renewable energy in countries like Yemen, Nigeria and Pakistan. Comprising of several international students across various disciplines like Civil Engineering, EEE, Physics etc, there happened to be people from those countries attending the class as well. And it so happened that, their core intention of joining this course was to bring about a change and address these issues in their country, so as to least transform the current conditions through their research. Apart from getting the first-hand details of the happenings, it seemed to be really heart-warming, to see how people collaborated through an exchange.

Currently the Thai Government is making strict amends to bring about 2nd generation engineering graduates through a revamped educational curriculum, more so to suit the modern engineering techniques adopted by industries. Another suggestion to take home with.

GOKUL KRISHNA J

III yr., B.E. Civil Engg.