

2018-2019

90



Developer Student Clubs  
powered by Google Developers



Sir M. Visvesvaraya  
Institute of Technology

6

CSE Seminar Hall  
23rd April  
(01:35 pm Onwards)



Write code. Blow minds.

Events Coordinator

Mrs. A. Ajlha  
Dr. Savitha Choudhary

Presenter



DSC Lead  
Kanishk Saxena



Akshay Kumar



Aswin Gopinathan



Aditya Raman

Contact Details

- Kanishk  
+91 94536 02511

- Akshay  
+91 70226 43972

SDP - WORKSHOP

Design by  
Rajat Goyal

Date 15/04/2019

To,  
Head of Department Computer Science and Engineering,  
Sir M. Visvesvaraya Institute of Technology,  
Bengaluru -562157


Subject: Permission to conduct an event "Write Code. Blow minds"

Respected Sir,

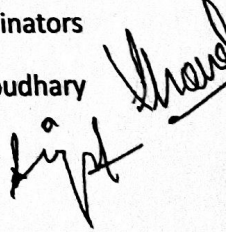
With respect to the above subject, we request you to allow for conduction of the event. The goal of the event is to introduce first year students to various domains under computer science like Web Development, Machine Learning etc.

We request you to grant permission to conduct this event in CS seminar hall on 23<sup>rd</sup> April 2019 from 1.00 pm to 4.00pm.

Place: Bengaluru

Conduct the program  


Coordinators  
Dr.Savita Choudhary  
Ajina A





# Introduction to C++ STL

Organised by Computer Science & Engineering (CSE) Department

Conducted by Developer Student Club SMVIT powered by Google Developers

Date and Time of Workshop: 23.04.2019, from 1:35 PM to 4:00PM

Venue: CSE Seminar Hall

Intended audience: 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> year

Faculty Coordinators: 1. Mrs. A. Ajina 2. Dr. Savitha Choudhary

Student Coordinators: 1. Kanishk Saxena 2. Akshay Kumar 3. Aswin Gopinathan 4. Aditya

No. of Registrations: 150

No. of Attendees: 120

## Objectives:

To demonstrate and familiarize students with, C++ Standard Template Library (STL). C++ STL is important for Competitive Programming, and Competitive Programming in turn is essential for students as it strengthens their "Data Structures and Algorithms" concepts necessary for Job interviews.

Students aspiring for global competitions like ACM-ICPC and Google Code Jam, will benefit from this workshop.

## Topics Covered:

1. Overview of C++ STL
2. auto keyword and Iterators
3. Data Structures / Containers in STL
4. Algorithms in STL
5. Summary

## Hands-on / Practical session conducted: Yes

An online coding competition was set up on HackerRank website. A 45 min long coding contest with 3 problems ranging from easy to medium level were given to the students. Top 2 performers in the contest were given the goodies.

## Signature of Faculty Coordinators:



# C++ STL!

## Session is about to Begin

1. Kindly keep your phones in Silent Mode.
2. Switch on your laptop and keep in sleep mode.
3. Keep pen and paper ready(optional).
4. Wifi: CSEDEPT2

Password: It's Open ;)



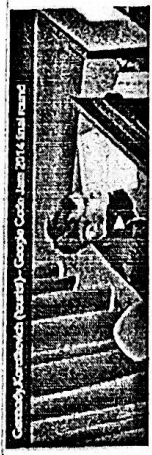
# A. We'll not tell you why use C++ for competitive Coding

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Tools used by gennady korotkevich for programming



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Sameer Sankaruna, Participated in ICPC regionals 2015  
 Answered May 12, 2017

In my personal opinion, C++ is ideal for programming in ICPC. Reason

- Strong STL support which allows programmer to use inbuilt in and data structures quickly. During my regional ICPC contest, organizing committee even provided STL docs during the contest.
- Less typing as compared to Java
- Fast compared to other languages like Python. A code which can SOLVIDES give TLE in Python but can pass in C++.
- Also, such cases are generally handled in the time limits provided in problem.

813 Views · View Upvotes · Answer requested by Deep Dey

[Upvote](#) [Share](#)

Narash Bhandrich, Selected for ACM-ICPC 16 Asia Onsite Regionals  
 Updated Mar 4, 2017

Actually there are 3 most popular languages Java, C, C++. But your question asks for one then I will say C++ is the most popular language. Because programming competitions not only tests your programming skills but also your algorithmic knowledge. As C++ is easy to start with, many

C++

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Alex Meed, 2017 ACM ICPC World Finals  
 Answered Jun 13, 2016

At the World Finals, you have to use one of the languages listed here: (for 2015): C, C++, Java, Python, or Kotlin (new in 2015). Most regionals have similar restrictions. Of those choices, I recommend C++ and Java, as I'll explain below. Disclaimer: I'm not familiar with Kotlin in competitive programming—it might be a great choice that I'm ignoring.

Of the languages allowed at the Finals, C++ is by far the most used. This is because unlike some other programming contests, the time limits aren't expanded if you use a slower programming language. As I recall, the organizers guarantee that every problem is solvable in C++ and Java, but not in Python—so if you use a slower language, you might literally not be able to solve the problem. As a result, most programmers use the fastest language available, which is C++.

Why not Java, you may ask? There seems to be an unspoken assumption among competitive programmers that C++ is The One True Language to use. Almost every blog post, essay, etc. about competitive programming on the Internet that includes code has it in C++. That means it's easiest to build up your code library

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When language is preferable in a contest?

You do prepare for ACM-ICPC in best cases by choosing a suitable competitive programming event. There are the most popular ones: Competitive Programming and UPP.

is Best (Narash) in ACM-ICPC

→ Ask New Question

View Related Questions

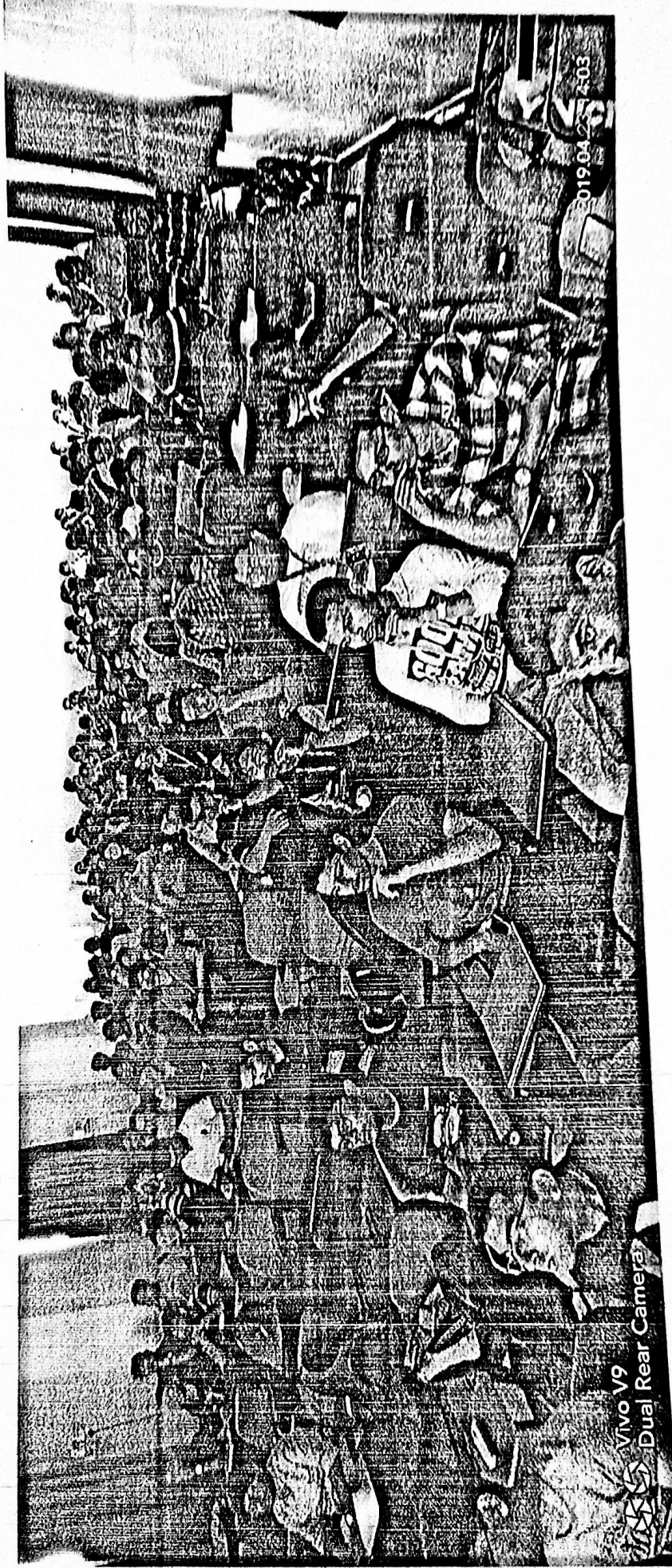
# This is where Standard Template Library(STL) comes into picture..

- The Standard Template Library (STL) is a set of C++ templates to provide common programming data structures and functions such as lists, stacks, arrays, etc.
- In simple words, it is a library of container classes, algorithms and iterators.
- This means you don't need to waste time re-inventing the wheel (be precise re-implementing).



# Hands-On Time!

- Let's get started.
- Please login to [HackerRank.com](https://www.hackerrank.com).
- Open this Link in a New Tab.
- [Link: <https://www.hackerrank.com/cstl>]



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Vivo V9  
Dual Rear Camera





Vivo V9  
Dual Rear Camera

2019.04.23 13:04

IV Sem  
(17 Batch)



2019/04/23 16:12

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Dual Rear Camera



**SIR M.VISVESVARAYA INSTITUTE OF TECHNOLOGY**

**Krishnadevaraya Nagar, Hunasamaranahalli, BANGALORE-562157**



**REPORT**  
**OF**  
**SKILL DEVELOPMENT PROGRAMME**  
**ON**  
**ADVANCED SURVEYING**  
**TECHNOLOGY**  
**USING TOTAL STATION, LIDAR,**  
**DGPS & UAV**

**28<sup>th</sup> to 30<sup>th</sup>**

**November 2018**

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#### About Workshop:

This workshop is aimed at the overall objectives, contents, tools and approaches of how the participants will be provided the customized training in Surveying with Total Station. This programme is aimed at providing uniform, comprehensive and customized guide to the participants in course of performing survey works in the field by Total Station

Since the nature of task demands field work around 50% of the training time will be focused on imparting practical training and remaining on theoretical concepts. The course of training will ensure that the trainees achieve required understanding on how to effectively handle and work on total station for multiple approaches.

#### Training Outline

#### Learning objectives:

- ✓ To learn the concepts of Advanced surveying.
- ✓ To understand how total station works.
- ✓ To learn how to operate and use total station.
- ✓ To learn surveying using total station, techniques and real world applications.
- ✓ To learn how to use related surveying software for data downloading and interpreting.
- ✓ To generate outputs and present the results.

#### CHIEF PATRONS

**Dr A.C. Chandrasekhar Raju**  
President, SRI KET  
**SRI K. SIVARAJU**  
Secretary, SRI KET

#### PATRON

**Dr Virsa K Bhasinalli**  
Director, SRI MYIT

#### ORGANISING CHAIR

**Dr. V. R. Manjunath**  
Principal, SRI MYIT

#### CONVENOR:

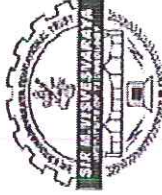
**Sri H.P. Mahendra Babu,**  
RETIRED  
**Dr. H. Ravikumar**  
Associate Professor, Civil

#### CO-ORDINATOR

**Mrs. Remya**  
Assistant Professor, Civil

#### COMMITTEE MEMBERS

**Sri K. R. Ramesh**      **Sri K. Subramanian**  
**Dr. S. Saranya**      **Sri A. Srinivas**  
**Sri. Arintha**      **Ms. Harsha S**  
**Sri. Pradeep S**      **Ms. Sravanth S**  
**Sri. Jagan Srin**



Skill Development Programme  
On

Advanced Surveying Technology  
Using Total Station, LIDAR,  
DGPS & UAV

28 - 30 November 2018

Venue:  
Faraday Seminar Hall  
Civil Block



By  
**Mr S Umanath Reddy, Chief Executive**  
Sir M. V School Of Excellence

Organized by  
**SRI M. V. VIGNESHWARA INSTITUTE OF TECHNOLOGY**  
Krishtadevarayana Street, Hunsur, Channarayana, Yelbarga,  
International Airport Road,  
Ponghuru, 562 157

**About the Trust:**

Sri Krishnaadevaraya Educational Trust provides quality education through selfless service. It was established in 1985 by a group of 19 philanthropists with the sole objective of imparting quality technical education. The professional colleges run by Sri KET include Sir M Visvesvaraya Institute of Technology and Krishnaadevaraya College of Dental Sciences (KCDS), Sir M V School of Architecture.

**About the Institute:**

Sir M Visvesvaraya Institute of Technology-Bangalore, is one of the leading technical institutes established in 1986, having completed its silver jubilee. The institute has spacious campus covering about 139 acres. The lush green ambience of Sir MVT makes the campus, free from pollution. Sir M Visvesvaraya Institute of Technology is recognized by AICTE, New Delhi, approved by Government of Karnataka and is affiliated to Visvesvaraya Technological University (VTU), Belgaum, and ISO Certified. The institute offers 9 Undergraduate, 5 Postgraduate courses along with 8 Research and consultancy activities in most of the departments with provision for Ph.D.

**About The Department:**

Into its 31<sup>st</sup> year of existence, the Department of Civil Engineering has an optimum blend of highly experienced and creative young staff. The department is known for its healthy student-faculty interaction, an active student forum and faculty up gradation programs. The Department offers consultancy services to various Government & Private agencies in the realm of concrete technology, highway material testing, soil testing and water sample testing and concrete mix design.

**Scope and Objective:**

The planning and design of all Civil Engineering projects such as construction of highways, bridges, tunnels, dams etc. are based upon surveying measurements. Moreover, during execution, project of any magnitude is constructed along the lines and points established by surveying. Thus, surveying is a basic requirement for all Civil Engineering projects.

A total station or TST (Total Station Theodolite) is an electronic/optical instrument used for surveying and building construction. The total station is an electronic Theodolite (transit) integrated with an electronic distance measurement (EDM) to read slope distances from the instrument to a particular point, and an on-board computer to collect data and perform advanced coordinate based calculations.

**Vision of The Department**

To attain competence, discipline, quality, excellence and commitment of global standards in civil engineering with capability of accepting new challenges.

**Mission of The Department**

To impart quality education in civil engineering to raise satisfaction level of all stakeholders.

To serve society and the nation by providing professional civil engineering leadership to find solution to community, regional and global problems and also accept new challenges in rapidly changing technology.

To create trained competent professional who can develop civil engineering systems and contribute towards developmental activities.

**Registration Form**

**Skill Development Program  
on**

**Advanced Surveying Technology  
Using Total Station, LIDAR,  
DGPS & UAV**

**(A Training program for Faculties, and  
Students)**

1. Name : .....
- (in Block Letters)
2. Designation: .....
3. Department: .....
4. Institution: .....
5. Address for Communication: .....
6. Telephone: (O) .....
- (R) .....
- Fax: .....
- Cell: .....
7. E-Mail: .....

Signature of the  
Applicant

Signature of the  
Principal



**Programme Schedule - Day 01: 28/11/2018**

Session	Timing	Topic Coverage
	0900-0930	Inauguration and introduction
I	0930-1100	Presentation on Advanced Surveying Technologies Using Total Station theory
	1100- 1115	Tea/Coffee Break
II	1115-1245	Presentation on Using LIDAR
	1245-1330	Lunch Break
III	1330-1500	On field training for faculty and students
	1500- 1515	Tea/Coffee Break
IV	1515-1645	On field training for faculty and students

**Programme Time Sheet - Day 02: 29/11/2018**

Session	Timing	Topic Coverage
V	0930-1100	Presentation Using DGPS
VI	1100- 1115	Tea/Coffee Break
	1115-1245	Presentation on Using UAV
	1245-1330	Lunch Break
VII	1330-1500	On field training for faculty and students
	1500- 1515	Tea/Coffee Break
VIII	1515-1645	On field training for faculty and students

**Programme Time Sheet - Day 03: 30/11/2018**

Session	Timing	Topic Coverage
IX	0930-1100	Case studies on using Total Station for Highway Project
	1100- 1115	Tea/Coffee Break
X	1115-1245	Case studies on using Total Station for Highway Project
	1245-1330	Lunch Break
XI	1330-1500	Case studies on using Total Station for Public Health Engineering Project
	1500- 1515	Tea/Coffee Break
XII	1515-1645	Case studies on using Total Station for Public Health Engineering Project

**Sir M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
Krishnadevaraya Nagar, Hunasamaranahalli, BANGALORE-562157

**THE MANAGEMENT, PRINCIPAL & STAFF**

Cordially invite you for

**THE INAUGURAL FUNCTION OF**

**“SKILL DEVELOPMENT PROGRAMME**

**on**

**Advanced Surveying Technology Using  
Total Station, LIDAR, DGPS & UAV”**

**On 28<sup>th</sup> November 2018 at 9-00 a.m. in the Faraday Seminar Hall**

**By**

**Mr S.Hemanth Reddy, B.E., M.Tech.(GIS&RS)**

**(Chief Executive, Sir MV Institute of Engineering Skills)**

**will conduct the workshop**

**Organised by the Department of Civil Engineering**



## REPORT

### Report on three day Skill Development Programme on “Advanced Surveying Technology Using Total Station, LIDAR, DGPS & UAV”

At the outset, we would like to express our gratitude and thanks to the Management of Sri KET and Principal for supporting the Civil Engineering Department for organizing Three Day Workshop on “Advanced Surveying Technology Using Total Station, LIDAR, DGPS & UAV” conducted from 28<sup>th</sup> - 30<sup>th</sup> November 2018 at Faraday Seminar hall, Sir MVIT campus.

The objective of this Skill Development programme on Advanced Surveying Technology Using Total Station, LIDAR, DGPS & UAV, is to make the participants aware about the usage and to carryout various Civil Engineering projects such as Highway alignment, Public Health Engineering, Layout plan, Canal alignment etc. To provide an opportunity to acquire knowledge on recent advances in survey instruments and their usage in the field of Civil Engineering. To understand the significance and methodologies which help the civil engineers to complete the task (survey) in a short time when compared with good old methods. Over 12 faculty members and 59 V semester B.E. Civil Engineering students participated in this three day skill development programme on Advanced Surveying Technology using Total Station.

Welcome note and opening remarks and significance of the workshop was delivered by Prof K.V.R.Prasad.

In the first session, Mr. Hemanth Reddy explained about various types of surveying instruments and development of modern equipments in surveying. He also explained in detail about total station, steps involved or followed in the usage of Total station and how it will save the data and its transfer for analysis (for C/S, L/S, block leveling etc)

In session 2 - Mr. Reddy explained about LIDAR or Laser Scanner (Light Detection and Ranging) and its usage in large scale surveying for Civil Engineering Projects like Highways, Townships and Tunnels.

In session 3 & 4 – Mr. Reddy and his associates gave field training. During this session they explained how to select Centering (Control Points), Major leveling, Minor leveling, Creation of job, Station setup, Back orientation and Establishing fore sight.

#### Day 2

In the first session Mr. Reddy gave a presentation on the usage of DGPS (Differential Global Positioning System). He explained us about the Theodolite, Total station and how the DGPS survey is different from other types of surveys. And also he explained that this technique is very recent and it is in use since 2000.

In session 2- Mr. Reddy explained about UAV technique in surveying. UAV is nothing but Unmanned Aerial Vehicle and it can be controlled from the ground. It is the most advanced surveying technique but it is very costly affair and is in use since 2015 for various surveying purposes.

In afternoon (Session 3 & 4), Mr. Reddy and his associates gave us field training for the Highway alignment project.

### Day 3

On Day three Mr. Reddy and his associates gave us field training for the Water Supply Project and later students carried out the Reconnaissance survey in the Sugatta Village to find out the higher elevation point to propose site for elevated water tank.

Valedictory session was held at 3:00 pm at Faraday Seminar Hall. Smt. Ramya N, Assistant Professor welcomed the gathering. Students expressed their happiness over the workshop, presentation by the speaker and also they thanked the Management and especially the principal for his efforts in arranging this workshop.

We once again thank the Management and Principal for their continuous support and guidance to conduct this three day Skill Development Programme on "Advanced Surveying Technology Using Total Station, LIDAR, DGPS & UAV".

#### CONVENERS

Dr. H. Ravi Kumar  
Associate Professor

Prof. H. P. Mahendra Babu,  
Head of the Department

#### COORDINATOR:

Mrs. Ramya .N  
Assistant Professor

#### COMMITTEE MEMBERS:

Sri K.V.R.Prasad	Smt.Vyshnavi.D.R
Dr.S.Shivanna	Smt.Agilin.R
Smt. Anitha.J	Ms.Bhavya.S
Smt.Pradeepa.S	MS.Saranya.S
Smt.Tamil Selvi N	



## Profile of Expert Trainer



**Name:** S Hemanth Reddy  
**Date of Birth:** 01-06-1968, Bellary, Karnataka.

**Qualification:** B.E Civil, Siddaganga Institute of Technology, Tumkur, Karnataka M.Tech (GIS & Remote Sensing), Anna University, T.N

**Present profession:** CEO, Sir M V Institute of Engineering Skills, Bangalore.

Partner Madhusiri Engineers & Properties-Consultancy group

### EXPERIENCE

Er.S Hemanth Reddy has 25 years experience in Civil Engineering industry especially. Worked for reputed Companies like, NICE Ltd, Bangalore, ESSAR Projects Ltd, Mumbai, SECON Ltd, Bangalore, Odisha, Pune, Ahmedabad (Gujarat), Krishmohan Constructions Pvt Ltd, Udaipur (Rajasthan) Nagarjuna Constructions Pvt Ltd, (Hyderabad & Bangalore) National Industrial Development Corporation, New Delhi, etc many other companies and projects all over India.

In 2002 started own consultancy firm and carried out the many projects across India. Few of them area

- Chitradurga-Haveri Western Transport corridor (NH-4) project in Karnataka.
- Trichy-Dindigul/Trichy-Karur/Tindivanam-Ulundurpet National Highway Projects in Tamilnadu.
- Hyderabad-Vijayawada Six laning project for GMR Projects.
- Hospet-Hungund (NH-13) toll road in Karnataka, Hyderabad-Vijayawada (NH- 9) toll road in Telangana for GMR Infrastructure Ltd,
- Bangalore Mysore Infrastructure Corridor Project (BMICP), Expressway project for Nandi Infrastructure Corridor Enterprises Ltd. Bangalore.
- Four laning of NH-26 Project for Transitory India Ltd in Sagar Dist, Madhya Pradesh.
- Topographical survey of 700 acre property for M.S Ramaiah group Bangalore.
- Topographical survey of around 100 Bridges for re construction purpose for NCC Ltd, Bangalore.
- Topographical survey of Gadag-Badami road project for R N Nayak & Sons, Hubli.
- Topographical survey of Hungund-Badami road project for India International Infrastructure Engineers, Bangalore.
- Topographical survey of Asia's Largest Solar power project in Santalpur Patan Dist, Gujarat.
- Carried out around 3000km of State Highway, PMGSY, and Rural road projects.
- Carried out around one lakh Hectare command area survey DPR consultancy of Irrigation projects in Andhra Pradesh, Gujarat and Karnataka.
- Conducted more than 2000 property surveys and column marking projects.

Conducted guest lectures and workshops on "Advanced Surveying Technologies using Total Station/DGPS/LiDAR" at following colleges/Construction Companies in Karnataka, Andhra Pradesh, Telangana and Tamilnadu



- ❖ Guest Lecture on "Advanced Surveying Technologies using Total Station, DGPS and LiDAR" for ACCE Engineers at BIT.
- ❖ One Day workshop for Nirmatikendra Engineers at Koushalya Shaale Kengeri.
- ❖ Guest lecture on Total Station for Valuation Engineers at Institution of Engineers, Dr Ambedkar Veedhi, Bengaluru.
- ❖ Two day National level workshop on Advanced surveying technologies at Brindavan Institute of Technology, Kurnool, Andhrapradesh
- ❖ Five Days workshop for 8<sup>th</sup> Sem students at STJ College of Engineering and Technology, Ranebennur, Haveri Dist, Karnataka.
- ❖ Two days workshop for 6<sup>th</sup> sem Diploma students at Gnanavikas polytechnic Chitradurga, Karnataka
- ❖ One day Workshop at STJIT-Ranebennur for 3<sup>rd</sup> and Final year Engg students, Karnataka
- ❖ One week training program for Final year Engg students of Adhiyamaan college of Engg, Hosur, Tamilnadu
- ❖ One Week FDP @Siddaganga Institute of Technology, Tumkur-Karnataka.
- ❖ One week FDP program @Malnad College of Engineering, Hassan- Karnataka.
- ❖ Three days Total station Training for Seventh Sem Students of BGS Institute of technology, Bellur cross, Nagamangala, Mandya-Karnataka.
- ❖ Three days Total station Training for Fifth Sem Diploma Students of SJBGS Polytechnic, Bellur cross, Nagamangala, Mandya-Karnataka.
- ❖ Three Days Total station Training for 5<sup>th</sup> SEM students @SJC Institute of Technology, Chikballapur-Karnataka.
- ❖ FDP for 40 Faculty from 10 Colleges @PES College of Engineering, Mandya- Karnataka.
- ❖ One day workshop for 7<sup>th</sup> Sem students @Rao Bahadur Y Mahabaleswarappa Engineering College, Bellary-Karnataka
- ❖ Three day Total station training for 7<sup>th</sup> sem students @Moodlakatte Institute of Technology, Kundapura. Mangalore-Karnataka.
- ❖ One day workshop for 7<sup>th</sup> sem students @Govt Engineering College, Ramanagara-Karnataka.
- ❖ One day workshop for 4<sup>th</sup> sem students @SJ BGS Polytechnic Bellur cross. Mandya-Karnataka.
- ❖ One day workshop for 5<sup>th</sup> sem students @Maratha Mandal Polytechnic Belgaum-Karnataka.
- ❖ One day workshop for 5<sup>th</sup> sem students @Sanjay Gandhi Polytechnic Bellary- Karnataka.
- ❖ One day workshop for 5<sup>th</sup> sem students @Govt Polytechnic, Bellary- Karnataka
- ❖ Extensive survey project for 5<sup>th</sup> Sem Students of SIT @ Melukote-2014, Karnataka.
- ❖ Extensive survey project for BGSIT and SJ BGS polytechnic Students at Melukote-Karnataka.
- ❖ Extensive survey project for 5<sup>th</sup> Sem Students @ Ghati Subramanya SJ CIT Chikballapur-Karnataka.
- ❖ Extensive survey project for 5<sup>th</sup> Sem Students of SIT @ Melukote- 2013, Karnataka
- ❖ Skill development training for Dept AEE's and AE's @ Koushalya shale Bangalore-Karnataka.
- ❖ Five Days Workshop on Total Station Training for L & W Constructions Staff (Survey training for 21 Graduate Engineer Trainees-2013), @ Bangalore - Karnataka.
- ❖ Three Days Workshop on Total Station Training for L & T Staff @ Mysore- Karnataka.
- ❖ One day workshop on Total Station Training for 5<sup>th</sup> sem students @G.S.S Institute of Technology, Bangalore-Karnataka.
- ❖ One day workshop on Total Station Training for 5<sup>th</sup> & 7<sup>th</sup> sem students @SJB Institute of



- Technology, Bangalore-Karnataka.
- ❖ One day workshop on Total Station Training for 7<sup>th</sup> sem students @JSS Academy of Technical Education, Bangalore-Karnataka.
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>& 7<sup>th</sup> sem students @Raja Reddy Institute Of Technology, Bangalore-Karnataka.
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>& 7<sup>th</sup> sem students @KNS Institute of Technology, Bangalore-Karnataka
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>& 7<sup>th</sup> sem students @Sai Vidya Institute of Technology, Bangalore-Karnataka.
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>&7<sup>th</sup> sem students @Bheemanna Khandre Institute Of Technology,Bidar-Karnataka.
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup> sem students @Basava Academy Of Engineering, Bangalore-Karnataka.
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>&7<sup>th</sup> sem students @Ghousia College Of Engineering, Ramanagar-Karnataka
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>&7<sup>th</sup> sem students @Kongu College of Engineering, Erode-Tamilnadu.
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>&7<sup>th</sup> sem students @Nandha Engineering College, Perundurai Erode-Tamilnadu.
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>&7<sup>th</sup> sem students @Adhiyamaan College Of Engineering, Hosur-Tamilnadu,
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup> students @PVP Polytechnic, Mallathahalli, Bangalore-Karnataka
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>&7<sup>th</sup> sem students @Arya Bharathi polytechnic, Tumkur-Karnataka
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>sem students @SJCIT, Chickaballapur-Karnataka.
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>&7<sup>th</sup> sem students CMRIT,Bangalore-Karnataka
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>&7<sup>th</sup> sem students @Nitte Meenakshi Institute of Technology, Bangalore-Karnataka
  - ❖ One day workshop on Total Station Training for 5<sup>th</sup>&7<sup>th</sup> sem students @T.John Institute of Technology, Bangalore-Karnataka.
  - ❖ One day workshop on Total Station Training for 7<sup>th</sup> sem Government Polytechnic Ramanagaram-Karnataka.
  - ❖ One day workshop on Total Station Training for 7<sup>th</sup> sem Students @ Government Polytechnic Channapatna-Karnataka.
  - ❖ One week Faculty Development program @P E S Engineering College, Mandya
  - ❖ Five Days Workshop on Total Station Training for L & W Constructions Staff @ Bangalore - Karnataka.
  - ❖ Six days workshop on Total Station Training For 7<sup>th</sup> Sem Students @Aditya Institute of Technology and Management, Srikakulam-Andhra Pradesh
  - ❖ Guest Lecturer on Total Station For 5<sup>th</sup> Sem Students @Aditya Institute of Technology and Management, Srikakulam-Andhra Pradesh
  - ❖ One week Total station Training for 5<sup>th</sup> Sem Students @S J C Institute of Technology, Chickballapur-Karnataka.
  - ❖ One day workshop on Total Station Training for Final year students @R.V.College of Engineering.Bangalore-Karnataka.
  - ❖ Two days workshop Total station Training for Final year students @P.A.Polytechnic, Nadupadav Mangalore-Karnataka.

- ❖ Two days workshop Total station Training for Final year students @Government Polytechnic, Bantwal Mangalore-Karnataka.
- ❖ One week Total station Training for 5<sup>th</sup> Final year students @P.E.S College of Engineering, Mandya-Karnataka.
- ❖ Two days Total station Training for Final year students @D.R.R Government Polytechnic, Davanagere-Karnataka.
- ❖ Two days Total station Training for Fifth Semester students @CMRIT Bengaluru-Karnataka.
- ❖ Three Days Workshop on Total Station Training for L & T Staff @ Mysore- Karnataka.
- ❖ One week Extensive project for 6<sup>th</sup> sem Students of BGS Institute of Technology, Bellur cross, Mandya at Melukote, Mandya Dist.
- ❖ One week Total station training and Project assistance for 8<sup>th</sup> sem students of Adhiyamaan college of Engg, Hosur, Tamilnadu.
- ❖ Live Project work guidance for 4 batches of final year B.E students- Adhiyamaan college of Engg, Hosur Tamilnadu.
- ❖ Live Project work guidance for 1 batch of final year B.E students-Shridevi College of Engineering, Tumakuru, Karnataka
- ❖ LiDAR and other advanced surveying technologies presentation to 1000 students from 30 colleges from Tamilnadu at Adhiyamaan college of Engg, Hosur, T.N.
- ❖ One week training for final year students of G Pullaiah College of Engg, Kurnool, Andhrapradesh
- ❖ One day workshop for 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> year students of BITS- Kurnool, Andhrapradesh
- ❖ Live Project work guidance for 90 Students of final year B.E students- Adhiyamaan college of Engg, Hosur(TN) September 2015.
- ❖ Guest Lecture for 3<sup>rd</sup> Sem students of R V College Bangalore.
- ❖ Guest Lecture for newly appointed RDPR Engineers at UVCE Campus in August and September 2015.

### **FINISHING SCHOOL**

Started finishing school in July 2015 for fresh Civil Engg graduates to impart industry oriented skills internship and job opportunities in the Industry. Placed around 150 Civil Engineers in Different companies

**S HEMANTH REDDY**



SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF CIVIL ENGINEERING  
V SEM B.E (CIVIL) One Day Workshop on Total Station Training  
Attendance sheet

SL NO	USN	NAME	Student signature		
			S1	S2	S3
1	IMV14CV035	Prajwal P.Naik	[Signature]	[Signature]	[Signature]
2	IMV15CV014	Fouad Payaz	[Signature]	[Signature]	[Signature]
3	IMV15CV023	Krishna Murari	[Signature]	[Signature]	[Signature]
4	IMV15CV063	Pavan Kumar Shripa	[Signature]	[Signature]	[Signature]
5	IMV15CV064	Suman Gowda M.A	[Signature]	[Signature]	[Signature]
6	IMV15CV066	Avinash .N	[Signature]	[Signature]	[Signature]
7	IMV16CV001	Aadesh Kumar	[Signature]	[Signature]	[Signature]
8	IMV16CV003	Akshay .S	[Signature]	[Signature]	[Signature]
9	IMV16CV005	Ameer Malikasab	[Signature]	[Signature]	[Signature]
10	IMV16CV006	Ananth Kumar .G	[Signature]	[Signature]	[Signature]
11	IMV16CV007	Anshu Kumar Singh	[Signature]	[Signature]	[Signature]
12	IMV16CV008	Arjun .A	[Signature]	[Signature]	[Signature]
13	IMV16CV009	Ashish	[Signature]	[Signature]	[Signature]
14	IMV16CV010	Davalasab M.Jalageri	[Signature]	[Signature]	[Signature]
15	IMV16CV011	Deepak .T	[Signature]	[Signature]	[Signature]
16	IMV16CV012	Ekta R. Iyer	[Signature]	[Signature]	[Signature]
17	IMV16CV014	Goutham R.Gowda	[Signature]	[Signature]	[Signature]
18	IMV16CV015	Hemanth Kumar K.S	[Signature]	[Signature]	[Signature]
19	IMV16CV016	M. Karthick	[Signature]	[Signature]	[Signature]
20	IMV16CV017	Karthik Sagar .R	[Signature]	[Signature]	[Signature]
21	IMV16CV018	Kavya Annie Jacob	[Signature]	[Signature]	[Signature]
22	IMV16CV019	M.Ankith Prasad	[Signature]	[Signature]	[Signature]
23	IMV16CV021	M.J Manoj Kumar	[Signature]	[Signature]	[Signature]
24	IMV16CV022	Madan R.S	[Signature]	[Signature]	[Signature]
25	IMV16CV023	Manoj Kumar .K	[Signature]	[Signature]	[Signature]
26	IMV16CV024	Mohammed Raihan	[Signature]	[Signature]	[Signature]
27	IMV16CV026	Mrudula .M	[Signature]	[Signature]	[Signature]
28	IMV16CV029	Narayan Mishra	[Signature]	[Signature]	[Signature]
29	IMV16CV030	Nehil Diwan	[Signature]	[Signature]	[Signature]
30	IMV16CV032	Niraj .R	[Signature]	[Signature]	[Signature]
31	IMV16CV033	P. Sai Tejeswar Reddy	[Signature]	[Signature]	[Signature]
32	IMV16CV034	Pooja .C	[Signature]	[Signature]	[Signature]
33	IMV16CV036	Prashant	[Signature]	[Signature]	[Signature]
34	IMV16CV037	Prittam Kumar	[Signature]	[Signature]	[Signature]
35	IMV16CV038	Pruthvi Kumar .N	[Signature]	[Signature]	[Signature]
36	IMV16CV040	Rakshith M.Gowda	[Signature]	[Signature]	[Signature]
37	IMV16CV041	Ramesh	[Signature]	[Signature]	[Signature]

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF CIVIL ENGINEERING  
V SEM B.E (CIVIL) One Day Workshop on Total Station Training  
Attendance sheet

SL NO	USN	NAME	Student signature		
			S1	S2	S3
38	IMV16CV042	Rohith R.V	Rohith R.V	Rohith R.V	Rohith R.V
39	IMV16CV044	Sharanabasava	Sharanabasava	Sharanabasava	Sharanabasava
40	IMV16CV045	Shilpashree .K	Shilpashree	Shilpashree	Shilpashree
41	IMV16CV047	Shobith Pandey	Shobith	Shobith	Shobith
42	IMV16CV049	Spandana .J	Spandana	Spandana	Spandana
43	IMV16CV050	Swaroop .O J	Swaroop	Swaroop	Swaroop
44	IMV16CV051	Syed Imdad	Syed Imdad	Syed Imdad	Syed Imdad
45	IMV16CV052	Tejashwini	Tejashwini	Tejashwini	Tejashwini
46	IMV16CV053	Vijay Kumar	Vijay Kumar	Vijay Kumar	Vijay Kumar
47	IMV16CV057	Yashaswini J.C	Yashaswini	Yashaswini	Yashaswini
48	IMV16CV058	Sumit Kumar Sinha	Sumit	Sumit	Sumit
49	IMV16CV059	Rakshan .N	Rakshan	Rakshan	Rakshan
50	IMV17CV400	Acharya Jatin	Acharya	Acharya	Acharya
51	IMV17CV401	Akhilesh .V	Akhilesh	Akhilesh	Akhilesh
52	IMV17CV402	Ambika K.Methre	Ambika	Ambika	Ambika
53	IMV17CV403	Ankush A.Gudigar	Ankush	Ankush	Ankush
54	IMV17CV404	Aravind .D	Aravind	Aravind	Aravind
55	IMV17CV405	Chavan Anil Tukaram	Chavan	Chavan	Chavan
56	IMV17CV406	Erappa	Erappa	Erappa	Erappa
57	IMV17CV407	Manjunath D.R	Manjunath	Manjunath	Manjunath
58	IMV17CV408	Mohan S.V	Mohan	Mohan	Mohan
59	IMV17CV409	Sharanappa B. Kalgudi	Sharanappa	Sharanappa	Sharanappa
60	IMV17CV410	Shreedhara	Shreedhara	Shreedhara	Shreedhara
61	IMV17CV411	Yashaswini G.C	Yashaswini	Yashaswini	Yashaswini



SKILL DEVELOPEMENT ON ADVANCE SURVEYING TECHNOLOGY USING  
TOTAL STATON, LIDAR, DGPS & UAV

STAFF REGISTRATION FORM

	Day 1	Day 2	Day 3	Signature
1.H P Mahendra Babu				
2.Dr. Shivanna				
3.K V R Prasad				
4. Dr.H Ravi kumar				
5. Pradeepa				
6. Anitha J				
7.Tamil selvi				
8. Ranya N				
9. Vyshnavi D R				
10. Agilin R				
11. Bhavya S				
12. Saranya				

SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY, BENGALURU – 562 157

Department Of Civil Engineering

Skill Development Programme

Advanced Surveying Technology Using Total Station ,LIDAR ,DGPS & UAV

(28<sup>th</sup>-30<sup>th</sup> November 2018)

**FEEDBACK FORM**

1. Name of the participant : \_\_\_\_\_

2. USN : \_\_\_\_\_

3. College/ Institution name : \_\_\_\_\_

Course/Training name : Advanced Surveying Technology Using Total Station ,LIDAR ,DGPS & UAV

4. The course/program is relevant and can improve my performance

Poor

Below Average

Good

Very Good

Excellent

5. Presentations, Learning content and sequence

Poor

Below Average

Good

Very Good

Excellent

6. The quality of teaching, exercises and activities were helpful

Poor

Below Average

Good

Very Good

Excellent

7. The instructor promoted the class participation and made it interactive

Poor

Below Average

Good

Very Good

Excellent

8. The training facility, seating arrangement and refreshments were

Poor

Below Average

Good

Very Good

Excellent

Any other Inputs you wish to share:-

\_\_\_\_\_

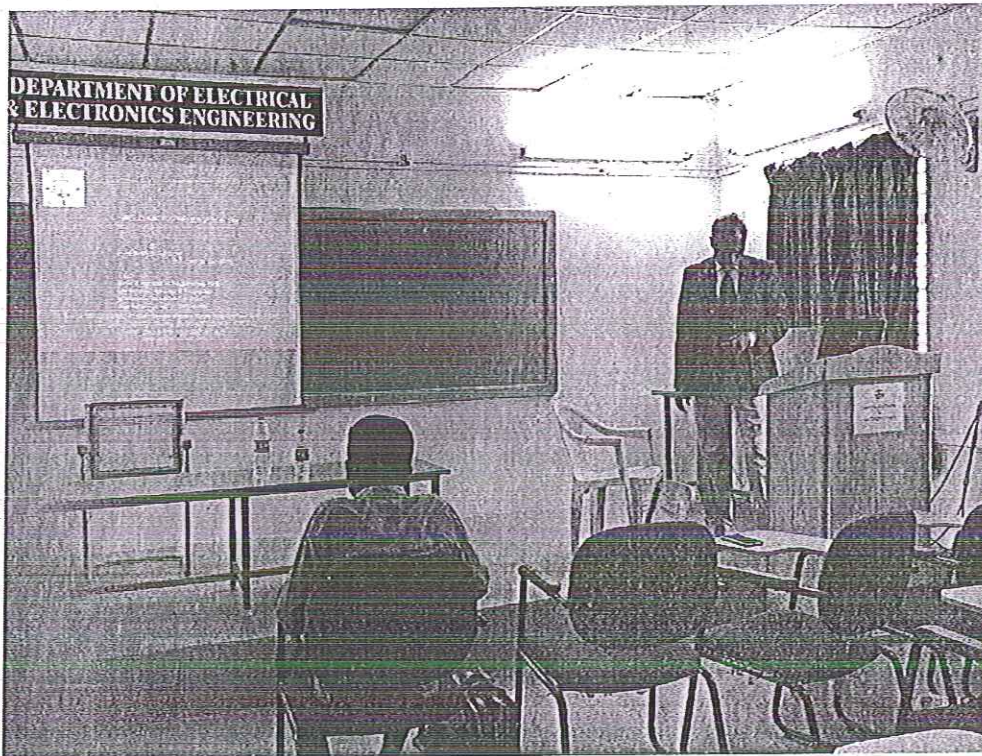
\_\_\_\_\_

Signature of Participant

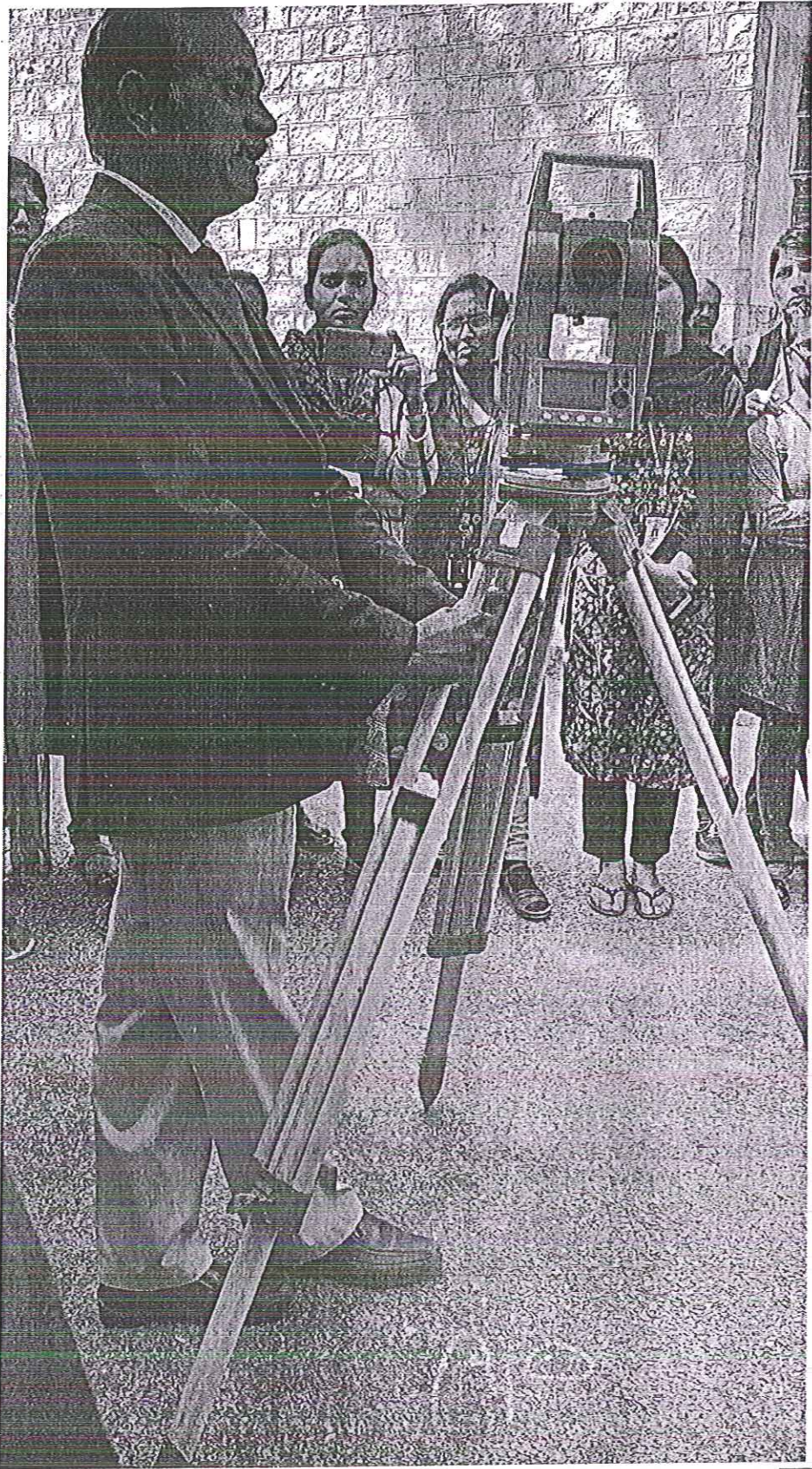
Date:



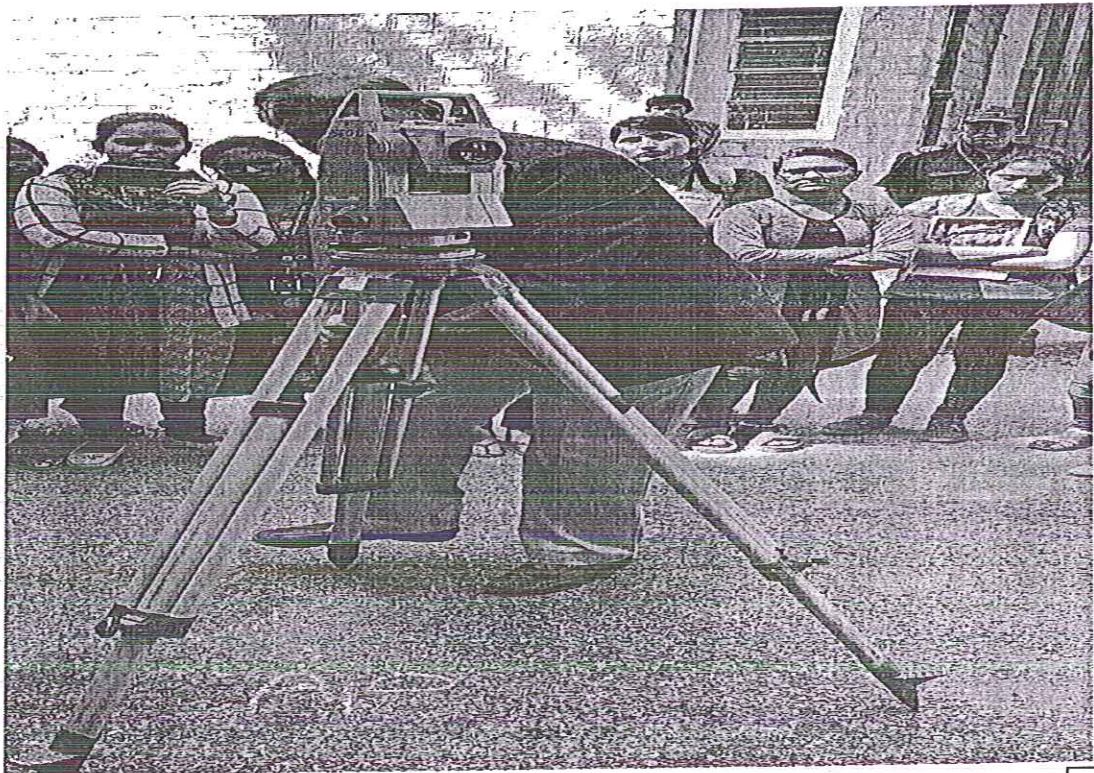
## PHOTO GALLERY













## REPORT

Report on three day Skill Development Programme on "Advanced Surveying Technology Using Total Station, LIDAR, DGPS & UAV"

At the outset, we would like to express our gratitude and thanks to the Management of Sri KET and Principal for supporting the Civil Engineering Department for organizing Three Day Workshop on "Advanced Surveying Technology Using Total Station, LIDAR, DGPS & UAV" conducted from 28<sup>th</sup> - 30<sup>th</sup> November 2018 at Faraday Seminar hall, Sir MVIT campus.

The objective of this Skill Development programme on Advanced Surveying Technology Using Total Station, LIDAR, DGPS & UAV, is to make the participants aware about the usage and to carryout various Civil Engineering projects such as Highway alignment, Public Health Engineering, Layout plan, Canal alignment etc. To provide an opportunity to acquire knowledge on recent advances in survey instruments and their usage in the field of Civil Engineering. To understand the significance and methodologies which help the civil engineers to complete the task (survey) in a short time when compared with good old methods. Over 12 faculty members and 59 V semester B.E. Civil Engineering students participated in this three day skill development programme on Advanced Surveying Technology using Total Station.

Welcome note and opening remarks and significance of the workshop was delivered by Prof K.V.R.Prasad.

In the first session, Mr. Hemanth Reddy explained about various types of surveying instruments and development of modern equipments in surveying. He also explained in detail about total station, steps involved or followed in the usage of Total station and how it will save the data and its transfer for analysis (for C/S, L/S, block leveling etc)

In session 2 - Mr. Reddy explained about LIDAR or Laser Scanner (Light Detection and Ranging) and its usage in large scale surveying for Civil Engineering Projects like Highways, Townships and Tunnels.

In session 3 & 4 – Mr. Reddy and his associates gave field training. During this session they explained how to select Centering (Control Points), Major leveling, Minor leveling, Creation of job, Station setup, Back orientation and Establishing fore sight.

### Day 2

In the first session Mr. Reddy gave a presentation on the usage of DGPS (Differential Global Positioning System). He explained us about the Theodolite, Total station and how the DGPS survey is different from other types of surveys. And also he explained that this technique is very recent and it is in use since 2000.

In session 2- Mr. Reddy explained about UAV technique in surveying. UAV is nothing but Unmanned Aerial Vehicle and it can be controlled from the ground. It is the most advanced surveying technique but it is very costly affair and is in use since 2015 for various surveying purposes.

In afternoon (Session 3 & 4), Mr. Reddy and his associates gave us field training for the Highway alignment project.



### Day 3

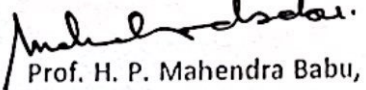
On Day three Mr. Reddy and his associates gave us field training for the Water Supply Project and later students carried out the Reconnaissance survey in the Sugatta Village to find out the higher elevation point to propose site for elevated water tank.

Valedictory session was held at 3:00 pm at Faraday Seminar Hall. Smt. Ramya N, Assistant Professor welcomed the gathering. Students expressed their happiness over the workshop, presentation by the speaker and also they thanked the Management and especially the principal for his efforts in arranging this workshop.

We once again thank the Management and Principal for their continuous support and guidance to conduct this three day Skill Development Programme on "Advanced Surveying Technology Using Total Station, LIDAR, DGPS & UAV".

#### CONVENERS

Dr. H. Ravi Kumar  
Associate Professor

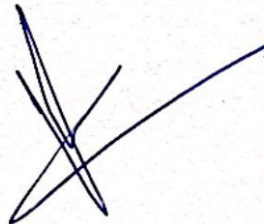
  
Prof. H. P. Mahendra Babu,  
Head of the Department  
neag  
Dept. of Civil Engg.  
MVIT, Bangalore-562 157

#### COORDINATOR:

Mrs. Ramya .N  
Assistant Professor

#### COMMITTEE MEMBERS:

Sri K.V.R.Prasad	Smt.Vyshnavi.D.R
Dr.S.Shivanna	Smt.Agilin.R
Smt. Anitha.J	Ms.Bhavya.S
Smt.Pradeepa.S	MS.Saranya.S
Smt.Tamil Selvi N	



Registration Form

CSI Sponsored 3 Day SDP on  
"App Building Fundamentals"  
Sales force Cloud Platform"

14<sup>th</sup> – 16<sup>th</sup> November, 2018

1. Name : .....  
(in Block Letters)
2. USN : .....
3. Department: .....
4. Institution: .....
5. Address for Communication: .....
6. Telephone: (O) .....  
(R) .....
7. E-Mail: .....

Signature of the  
Applicant

Signature of  
Principal/E

**Objective of the Workshop**

The objective of the workshop is to enable the students to work on Cloud Platform and certification provided by this workshop can enhance their employability opportunities.

**Schedule**

**Day1** - During Morning session students created their login to explore the cloud platform. Module-1 How to launch playground. Install Apps and Packages in Your Trail head Playground. After completion of every module they need to accept the challenges to gain digital badge to move on to next level.

**Day2** - Module 2 includes Locale Settings can be used to change Language ,Location and Time zone, Data Modeling were covered with Creating Object, Create Object Relationships and Working with Schema Builders and Data Management ,challenges pertaining to topics covered. Modules covered include Data Security, Creating Permission set, Control Access to Records, Creating the Role Hierarchy and Hands-on session includes challenges, quiz regarding the topics covered.

**Day3** - Modules covered includes Customize an Org to Support a New Business Unit. Create Reports and Dashboards for Sales and Marketing Managers.

CSI Sponsored 3 day's workshop

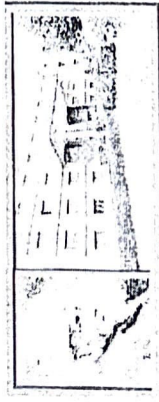
on

"App Building Fundamentals on  
Sales force Cloud Platform"

14<sup>th</sup> –16<sup>th</sup> November, 2018

Venue:

MCA Seminar Hall



By  
**Mr. Kumara Murali,**  
Salesforce Bengaluru

**Organized by**

SRI KRISHNADEVARAYA EDUCATIONAL TRUST  
SIR M VISVESVARAYA INSTITUTE OF

TECHNOLOGY

Krishnadevarayanagar, Hanumanaramahalli, Yelahanka,  
International Airport Road,  
Bengaluru- 562 157

Phone :080-28467248,28477024 Web site: www.sirmv.edu



### **About the Trust:**

Sri Krishnadevaraya Educational Trust provides quality education through selfless service. It was established in 1985 by a group of 19 philanthropists with the sole objective of imparting quality technical education. The professional colleges run by Sri KET include Sir M Visvesvaraya Institute of Technology and Krishnadevaraya College of Dental Sciences (KCDS), Sir M V School of Architecture.

### **About the Institute:**

Sir M Visvesvaraya Institute of Technology-Bengaluru, is one of the leading technical institutes established in 1986, having completed its silver jubilee. The institute has spacious campus covering about 133 acres. The lush green ambience of Sir MVIT makes the campus, free from pollution. Sir M Visvesvaraya Institute of Technology is recognized by AICTE, New Delhi, approved by Government of Karnataka and is affiliated to Visvesvaraya Technological University (VTU), Belagavi, and ISO Certified. The institute offers 9 Undergraduate, 5 Postgraduate courses along with 8 Research and consultancy activities in most of the departments with provision for Ph.D. Our Institution is Accredited by NAAC in the year 2018 for a duration of 5 years

### **About MCA Department**

The department was set up in 1998 with an annual intake of 30 students and subsequently enhanced to 60. Over the years, the department has established well-equipped laboratory with internet facility and excellent library. It offers an excellent academic environment to boost complete personality development, increase the capabilities and confidence of both the teachers and students to take up the challenges of the dynamic socio-technical world. The department has organized Seminar series by eminent personalities from industry, academia and from Professional bodies. The dept. has organized various workshops to upgrade the technical and teaching skills of the staff. The dept. encourages participation in National/International conferences to present research papers. The faculties of the dept. have published several research papers in various reputed National/International journals and conferences where the papers are published in IEEEExplore/Springer series. To support creativity amongst the students, we have brought forth the departmental forum called "PRAYOG". Other activities like ALUMNI Meet and Parent-Teacher meetings are conducted regularly.

### **SPEAKER**

**Mr. Kumara Murali,**  
Salesforce Bengaluru

### **CHIEF PATRONS**

**Dr A C Chandrashekar Raju,**  
President, Sri KET

**Sri K Syama Raju,**  
Secretary, Sri KET

### **ORGANISING CHAIR**

**Dr. V.R.Manjumath,**  
Principal, Sir MVIT

### **CHIEF COORDINATOR**

**Dr. Manjula Sarjaya koti**  
Prof. and HOD, MCA  
Mobile: +91 988605600

Dr Manjula Sanjay <manjula.dsce@gmail.com>



3-day training program from Salesforce.com for Sir MVIT, Bengaluru

8 messages

Wed, Oct 31, 2018 at 5:32 PM

Dr Manjula Sanjay <manjula.dsce@gmail.com>  
To: "Dr.Prakash. Sheelvanthmath" <prakash.hospet@gmail.com>

Dear Sir,

Greetings!!!  
As per our discussion yesterday, I request you to please arrange for the 3-day training program from Salesforce.com for our 5th sem MCA students. The feasible dates would be from Nov 12-16, 2018.

Kindly do the needful so that our students get benefit from this.

Regards,  
Dr. Manjula  
Prof. & HOD, Dept. Of MCA,  
Sir MVIT

Thu, Nov 1, 2018 at 3:53 PM

Dr.Prakash. Sheelvanthmath <prakash.hospet@gmail.com>  
To: Manjula Sanjay <manjula.dsce@gmail.com>, Kumara Murali <kumara.murali@salesforce.com>

Dear Kumar  
In continuation of our discussion , I request you to kindly check your calendar for the above dates. Madam is very active and has worked with me.at DSI . she will do justice to your time and effort. She will take forward the leaning with salesforce after the training program  
Kindly take it forward  
[Quoted text hidden]

Thu, Nov 1, 2018 at 4:52 PM

Kumara Murali <kumara.murali@salesforce.com>  
To: "Dr.Prakash. Sheelvanthmath" <prakash.hospet@gmail.com>  
Cc: manjula.dsce@gmail.com

**boxbe** Kumara Murali (kumara.murali@salesforce.com) added themselves to your Guest List | Remove them | Block them

Prakash Sir,

Thank you very much for connecting me with Sir MVIT. I am ok with 14, 15 and 16th. Let's fix these dates.

Manjula Madam,

Glad to connect with you. I am sure this program would benefit your students in exploring new career opportunities.

As a pre-requisite please ask your students to sign up on developer.salesforce.com, using their primary email id and using those credentials login to trailhead.salesforce.com by selecting 'login using salesforce'. Please make sure everybody does this before they walk into the workshop.

Waiting to meet you soon.

Thank you,  
Kumara Murali  
Technical Instructor, Trailhead for Students  
Mobile : +91 9972822353  
"Sent from mobile device"

On Thu 1 Nov, 2018, 3:53 PM Dr.Prakash. Sheelvanthmath, <prakash.hospet@gmail.com> wrote:

Dear Kumar

Kindly check your calendar for the above dates. Madam is very



----- Forwarded message -----

From: **Dr Manjula Sanjay** <manjula.dsce@gmail.com>

Date: Wed, 31 Oct 2018, 5:33 pm

Subject: 3-day training program from Salesforce.com for Sir MVIT, Bengaluru

To: Dr.Prakash. Sheelvanthmath <prakash.hospet@gmail.com>

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Regards,

Dr. Manjula

Prof. & HOD, Dept. Of MCA,

Sir MVIT

Thu, Nov 1, 2018 at 5:38 PM

**Dr.Prakash. Sheelvanthmath** <prakash.hospet@gmail.com>

To: Kumara Murali <kumara.murali@salesforce.com>

Cc: Manjula Sanjay <manjula.dsce@gmail.com>

Thanks a lot. Kumar

On Thu, 1 Nov 2018, 4:52 pm Kumara Murali, <kumara.murali@salesforce.com> wrote:

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Waiting to meet you soon.

Thank you,

Kumara Murali

Technical Instructor, Trailhead for Students

Mobile : +91 9972822353

"Sent from mobile device"

[Quoted text hidden]

Fri, Nov 2, 2018 at 11:42 AM

**Dr Manjula Sanjay** <manjula.dsce@gmail.com>

To: Kumara Murali <kumara.murali@salesforce.com>

Cc: "Dr.Prakash. Sheelvanthmath" <prakash.hospet@gmail.com>

Dear sir,

Thanks Dr. Prakash sir for connecting me to Mr. Kumara Murali sir in conducting the program at our campus.

Kumara sir, thanks a lot for giving us your valuable time and cooperation in organising this 3-day training program to our students. Definitely, the prerequisites which you have mentioned will be completed by our students before commencement of the program.

Warm Regards,

Dr. Manjula

2019  
boxbe Kumara Murali (kumara.murali@salesforce.com) added themselves to your Guest List | Remove them | Block them

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Mobile : +91 9972822353  
"Sent from mobile device"

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[Quoted text hidden]

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**Dr.Prakash. Sheelvanthmath** <prakash.hospet@gmail.com>  
To: Manjula Sanjay <manjula.dsce@gmail.com>  
Cc: Kumara Murali <kumara.murali@salesforce.com>

Fri, Nov 2, 2018 at 11:48 AM

ALL THE BEST FOR THE PROGRAM  
[Quoted text hidden]

--  
With Warm Regards  
Dr. Prakash.S  
Editor in Chief, CSI Adhyayan  
9535797327

---

**Kumara Murali** <kumara.murali@salesforce.com>  
To: "Dr.Prakash. Sheelvanthmath" <prakash.hospet@gmail.com>  
Cc: Dr Manjula Sanjay <manjula.dsce@gmail.com>

Fri, Nov 2, 2018 at 12:37 PM

Thanks for your support Sir.  
[Quoted text hidden]

--  
Thank You,  
Murali  
Technical Instructor  
Trailhead For Students  
Salesforce

---

**Dr Manjula Sanjay** <manjula.dsce@gmail.com>  
To: "Dr.Prakash. Sheelvanthmath" <prakash.hospet@gmail.com>  
Cc: Kumara Murali <kumara.murali@salesforce.com>

Sat, Nov 3, 2018 at 9:54 AM

Thanks Prakash sir and Kumara Sir.,  
[Quoted text hidden]

--  
Warm Regards,

.....  
**Dr. Manjula Sanjay**, MCA, M.Phil, Ph.D, MCSI, MISTE  
Professor & Head, Dept. of MCA,  
Sir M. Visvesvaraya Institute of Technology,  
Member-ROF-Visvesvaraya Technological University



**SRI KRISHNADEVARAYA EDUCATIONAL TRUST**  
No. 16, Ballari Road, Sadashivanagar, Bengaluru - 560 080

Ref.No.KET/122/1012/2018 - 2019

Date: 05/11/2018

**NOTE:**

Sub: Sanction of financial assistance for organizing 3 day Training Programme on "SAAS & PAAS" for V Semester students of MCA.

Ref: Letter from HOD, Dept. of MCA. No. MVIT/MCA/850/2018-2019, dated 31/10/2018, with Principal's endorsement No. 3691, dated 31/10/2018 and recommended by the Chairman, Research Advisory Committee.

\*\*\*

With reference to the above, approval is accorded to conduct a 3 day Training Programme under CSI (Computer Society of India) on "SAAS & PAAS" for V Semester students of MCA on 13<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup> November, 2018 in association with salesforce.com - an American Cloud Computing Company, headquartered in San Francisco, California, to facilitate students to assess themselves and to get global digital certificates from the said agency.

An amount of Rs.15,000/- (Rupees Fifteen Thousand only) is sanctioned to conduct the said programme and the amount be drawn from the Principal S.B. A/c. Relevant bills / vouchers along with the report be submitted to this Office within 15 days of the conduct of the programme, for reimbursement.

  
(K. SYAMA RAJU)  
SECRETARY

To  
The Principal,  
Sir MVIT, Bengaluru.

Copy to:

1. The HOD, Dept. of MCA, Sir MVIT, Bengaluru.
2. The Accounts Officer, Sri KET, Bengaluru.

**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF COMPUTER APPLICATIONS**

Ref. No: MVIT/MCA/ 894 /2018-2019

Date: 07/01/2019

To  
The Principal  
Sir MVIT  
Bangalore - 562157.

Respected Sir,

Sub: Submitting the accounts for organizing 3-day training programme  
on "SAAS & PAAS" on 14<sup>th</sup> to 16<sup>th</sup> November 2018 - reg.  
Ref: KET Note. No. KET/122/1012/2018-2019, dated 05.11.2018

With reference to the above, I am herewith enclosing the original bills (09 Bills, 04 Vouchers, 2 challans for expenses incurred towards conducting 3-day training programme on "SAAS & PAAS" on 14<sup>th</sup> to 16<sup>th</sup> November 2018. The details are as follows:

Total Expenditure incurred towards programme (Detailed expenditure statement enclosed)	-	Rs. 21,537
Less: Amount received from the Principal's A/c as per KET letter No. 122/1012/2018-19, dated 05.11.18 vide Ch. No. 009692, dtd 13.11.2018	-	<u>Rs. 15,000</u>
Shortage of amount for final settlement	-	<u>Rs. 6,537</u>

Further, the amount of Rs. 5,500/- (Rs. 300/- candidate x 33 students) collected towards Registration fees from 5<sup>th</sup> semester MCA is remitted to Principal's SB Principal's SB A/C No. 183110000011 on 27.11.2018.

I request you kindly to reimburse the balance amount of Rs. 6,537/- (Expenditure Rs. 21,537 - 15,000 advance amount received from Principal's A/C) at the earliest.

Thanking You,

Yours Sincerely,

Prof. & HOD, MCA

PROF. & HEAD

DEPARTMENT OF COMPUTER APPLICATIONS

Sir M. Visvesvaraya Institute of Technology  
Munagambanahalli, Bangalore-562 157

Encl: Same as above.

Received a cheque for Rs. 6537/-  
vide ch. no. 010501, dated 14/1/2019  
on 16/1/2019



SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF COMPUTER APPLICATIONS  
REPORT ON

CSI Sponsored 3 Days Workshop

on

**“App Building Fundamentals on Sales force Cloud Platform”**

The Workshop titled “App Building Fundamentals on Sales force Cloud Platform” has been organized by Department of Computer Applications as part of CSI chapter for V sem M.C.A students. **Cloud computing** is shared pools of configurable computer system resources and higher-level services that can be rapidly provisioned with minimal management effort, often over the Internet. Cloud computing relies on sharing of resources to achieve coherence and economics of sale similar to a public utility.

The inaugural function of 3 days workshop started at 9.30 a.m in M.C.A Seminar Hall.

Dr.Manjula Sanjay Koti, HOD-MCA welcomed the dignitaries, students and other department HOD's for the workshop. Dr. V.R Manjunath, Principal, Sir MVIT had given presidential remarks.

The objective of the workshop is to enable the students to work on Cloud Platform and certification provided by this workshop can enhance their employability opportunities.

The program was scheduled for 3 days November 14<sup>th</sup> to 16<sup>th</sup> 2018.

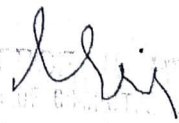
Mr. Kumara Murali, Salesforce Bengaluru was the Resource person for the 3days workshop.

Day1 –During Morning session students created their login to explore the cloud platform. Module-1 How to launch playground. Install Apps and Packages in Your Trail head Playground. After completion of every module they need to accept the challenges to gain digital badge to move on to next level. Module 2 includes Locale Settings can be used to change Language, Location and Time zone.

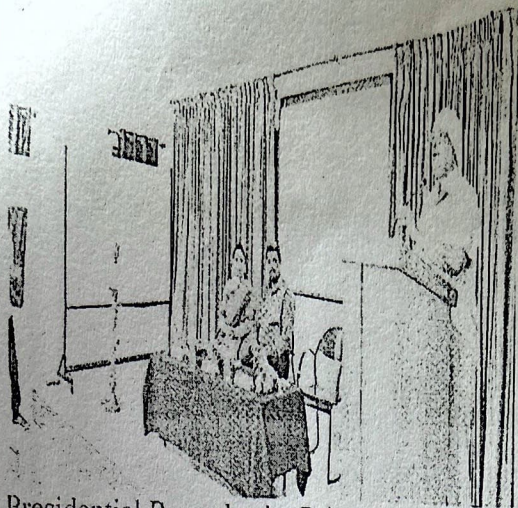
Day 2: Data modeling were covered with Creating Object, Create Object Relationships and Working with Schema Builders and Data Management, challenges pertaining to topics covered. Module3 covered includes Import Data and Export data. Challenges and Quiz were taken up on Topics covered. Creating Profile which includes activation and Deactivation challenges. Modules covered includes Data Security

Day3: Creating Permission set, Control Access to Records. Creating the Role Hierarchy and Hands-on session includes challenges, quiz regarding the topics covered. Module covered includes Customize an Org to Support a New Business Unit. Creating Reports and Dashboards for Sales and Marketing Managers

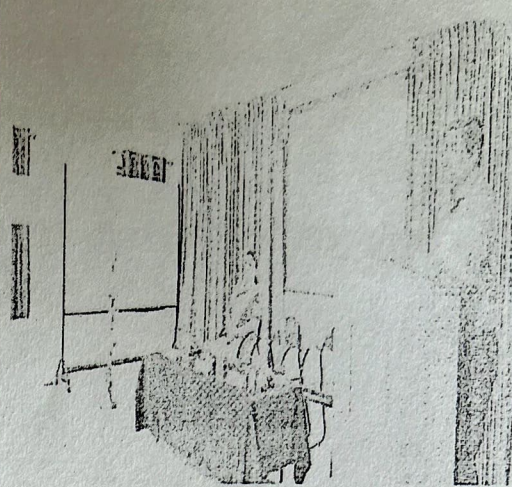
Finally Super badge challenge contest was conducted to identify the Best performers. Six best Performers were awarded with T-Shirts

  
MUNASAMARANAHALLI  
Dr. M. Visvesvaraya Institute of Technology  
Munasamaranahalli, Bangalore-562 167

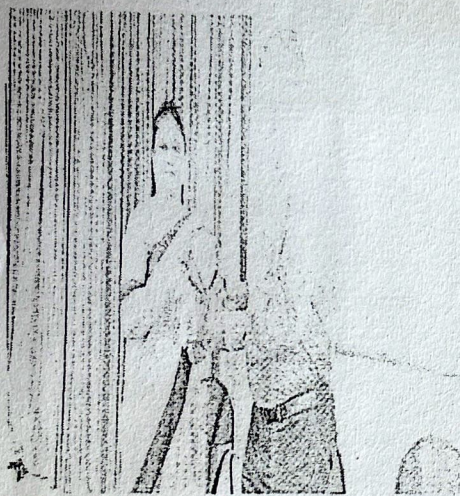




Presidential Remarks by Principal



Workshop description by Chief Guest



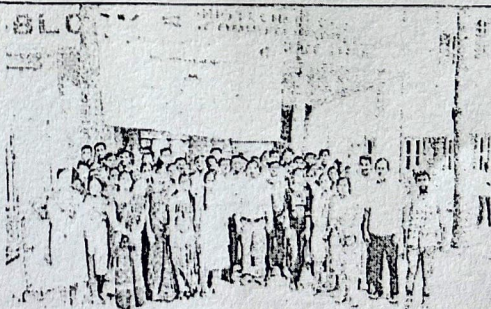
Felicitating the Chief Guest



Hands-on session



Workshop Audience



Workshop Group photo

*lly*  
PROF & HEAD  
MASTER OF COMPUTER APPLICATIONS  
M. Visvesvaraya Institute of Techno  
Munasamaranahalli, Bangalore-562 1



SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER APPLICATIONS

CSI Sponsored 3 Day Workshop

on

“App Building Fundamentals on Salesforce Cloud Platform”

Date: 14th - 16th Nov 2018

Target: 5<sup>th</sup> Semester MCA Students

Feed Back Form

Name of the Student: SHANANTH KUMAR USN: 1MVL6EMCA18

E-mail ID : shananthkumar2211@gmail.com

Contact Number : 7411612838

Your view on the Resource Person and Workshop (Tick for appropriate choice (✓))

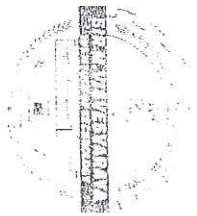
Evaluation Criteria	Excellent	Very Good	Good	Fair
a. Conveyed Clear purpose of Course	✓			
b. Captured Listeners Interest		✓		
c. Provided adequate information regarding course	✓			
d. Time management	✓			
e. Modules were clearly defined and well presented	✓			
f. Supporting material was sufficient to perform hands-on session	✓			
g. Objectives of the workshop was met.	✓			

Thank You for the workshop, very much useful.

Date: 16/11/18

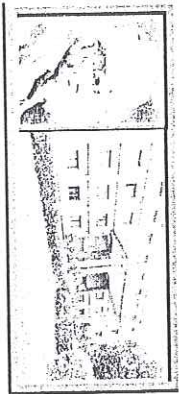
Shanant  
Kumar.N.  
Signature





**2 day's workshop**  
on  
**“Online certification Course On  
Virtualization”**  
29<sup>th</sup> – 30<sup>th</sup> October, 2018

Venue:  
MCA Seminar Hall



By  
**Mr. Sachin Regional manager,  
VMware IT Academy**

**Organized by**  
SRI KRISHNADEVARAYA EDUCATIONAL TRUST  
SIR M VISVESVARAYA INSTITUTE OF  
TECHNOLOGY  
Krishnadevarayanagar: Hunasamarahalli, Yelahanka.  
International Airport Road,  
Bengaluru- 562 157  
Phone: 080-28467248, 28477024 Web site: www.sirmvit.edu

**Objective of the Workshop**

The Objectives of online certification course are:

- Explore creating a virtual machines and the benefits
- Move from a physical environment to a virtual one
- Describe types of virtualization used for data centers
- Describe virtualization, virtual machines, hypervisors, and VMware vSphere@ components
- Describe the concepts of server, network, storage, and desktop virtualization

**Schedule**

**Day 1:** Students had theory and hands-on session on topics which includes two lab session i.e., Creating a Virtual Machine and Virtual Machine Files and Snapshots

**Day 2:** Students completed two more lab sessions which c includes Virtual Machine Cloning and Exporting and Virtual Machine Networking.

**Registration Form**

**2 Day SDP**

on

**“Online certification Course on  
“Virtualization”**

**29<sup>th</sup> – 30<sup>th</sup> October, 2018**

1. Name : .....  
(in Block Letters)
  2. USN : .....
  3. Department: .....
  4. Institution: .....
  5. Address for Communication:  
.....  
.....
  6. Telephone: (O) .....  
(R) .....
  7. E-Mail: .....
  - Mobile:.....
- Signature of the Applicant
- Signature of the Principal/H

#### **About the Trust:**

**Sri Krishnadevaraya Educational Trust**, provides quality education through selfless service. It was established in 1985 by a group of 19 philanthropists with the sole objective of imparting quality technical education. The professional colleges run by Sri KET include Sir M Visveswaraya Institute of Technology and Krishnadevaraya College of Dental Sciences (KCDS), Sir M V School of Architecture.

#### **About the Institute:**

**Sir M Visveswaraya Institute of Technology-Bengaluru**, is one of the leading technical institutes established in 1986, having completed its silver jubilee. The institute has spacious campus covering about 133 acres. The lush green ambience of Sir M VIT makes the campus, free from pollution. Sir M Visveswaraya Institute of Technology is recognized by AICTE, New Delhi, approved by Government of Karnataka and is affiliated to Visveswaraya Technological University (VTU), Belagavi, and ISO Certified. The institute offers 9 Undergraduate, 5 Postgraduate courses along with 8 Research and consultancy activities in most of the departments with provision for Ph.D. Our Institution is Accredited by NAAC in the year 2018 for a duration of 5 years

#### **About MCA Department**

The department was set up in 1998 with an annual intake of 30 students and subsequently enhanced to 60. Over the years, the department has established well-equipped laboratory with internet facility and excellent library. It offers an excellent academic environment to boost complete personality development, increase the capabilities and confidence of both the teachers and students to take up the challenges of the dynamic socio-technical world. The department has organized Seminar series by eminent personalities from industry, academia and from Professional bodies. The dept. has organized various workshops to upgrade the technical and teaching skills of the staff. The dept. encourages participation in National/International conferences to present research papers. The faculties of the dept. have published several research papers in various reputed National/International journals and conferences where the papers are published in IEEEExplore/Springer series. To support creativity amongst the students, we have brought forth the departmental forum called "PRAYOGE". Other activities like ALUMNI Meet and Parent-Teacher meetings are conducted regularly.

#### **SPEAKER**

*Mr. Sachin Regional Manu  
VMware IT Academy*

#### **CHIEF PATRONS**

*Dr A C Chandrashekar Raju  
President, Sri KET*

*Sri K Snyama Raju,  
Secretary, Sri KET*

#### **ORGANISING CHAIR**

*Dr. V.R.Maryunath,  
Principal, Sir MVIT*

#### **CHIEF COORDINATOR**

*Dr. Manjula Sanjay koti  
Prof. and HOD, MCA  
Mobile: +91 9886056009*





Dr Manjula Sanjay &lt;manjula.dsce@gmail.com&gt;

## Schedule of I phase of VM course-SIR MVIT

4 messages

Dr Manjula Sanjay &lt;manjula.dsce@gmail.com&gt;

Fri, Oct 12, 2018 at 4:42 PM

To: sachinkumar@vmware.com, "Dr.Prakash. Sheelvanthmath" &lt;prakash.hospet@gmail.com&gt;

Dear Sir,

Greetings!!!

With regard to schedule of the I phase of course on Virtualization to be taken up by the students, You had mentioned to take up the course before Oct 20, 2018. But, since we are tied up with other academic activities, fests and Internals. Can we have it on Oct 29-30,2018.

Please let me know if the above mentioned dates are feasible.

--

Warm Regards,

.....  
**Dr. Manjula Sanjay**, MCA, M.Phil, Ph.D, MCSI, MISTE  
 Professor & Head, Dept. of MCA,  
 Sir M. Visvesvaraya Institute of Technology,  
 Member-BOE-Visvesvaraya Technological University  
 Bangalore-562 157  
 Ph: +91-80-28477024/025/026(office) , 28467248- Ext. 173  
 Ph: 9886056005(M)

cc  
 to

Dr.Prakash. Sheelvanthmath &lt;prakash.hospet@gmail.com&gt;

Fri, Oct 12, 2018 at 5:27 PM

To: Manjula Sanjay <manjula.dsce@gmail.com>  
 Cc: Sachin Kumar R S <sachinkumar@vmware.com>

Dear Sachin,

Many colleges have internals this week and followed by holidays in coming week,  
 kindly facilitate for the above dates.

Regards

[Quoted text hidden]

--

With Warm Regards

Dr. Prakash.S

Editor in Chief, CSI Adhyayan

9535797327

Sachin Kumar R S &lt;sachinkumar@vmware.com&gt;

Mon, Oct 15, 2018 at 11:24 AM

To: Dr Manjula Sanjay &lt;manjula.dsce@gmail.com&gt;, "Dr.Prakash. Sheelvanthmath" &lt;prakash.hospet@gmail.com&gt;

Dear Sir,

Sorry for the late reply.

Yes, your institute can run the session on 29<sup>th</sup> October. Kindly go ahead. Attaching the document which gives the step by step information to takeup the course.

2/11/2019

Gmail - Schedule of I phase of VM course-SIR MVIT

Regional Program Manager - AP&J

VMware IT Academy

sachinkumar@vmware.com

Mobile: 974.190.1747

vmware

[Quoted text hidden]

 **Intro to Vlrt\_Steps .pdf**  
361K

**Sachin Kumar R S** <sachinkumar@vmware.com>

Mon, Oct 15, 2018 at 11:24 AM

To: "Dr.Prakash. Sheelvanthmath" <prakash.hospet@gmail.com>, Manjula Sanjay <manjula.dsce@gmail.com>

I understand Sir, College can go ahead on 29<sup>th</sup> Oct.

**Sachin Kumar R S**

Regional Program Manager - AP&J

VMware IT Academy

sachinkumar@vmware.com

Mobile: 974.190.1747

vmware

[Quoted text hidden]



SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

DEPARTMENT OF COMPUTER APPLICATIONS

REPORT ON

Online certification Course

By

VMWare IT Academy

The Department of MCA conducted "Online certification Course On "Virtualization" for 2 days 29.10.2018 and 30.10.2018 Our aim was to provide exposure to students to work on Virtualization. The certification course was conducted by Department of Computer Applications, Computer Science and Engineering and Information Science and Engineering. Around 130 students participated from Department of Computer Applications, Computer Science and Engineering and Information Science and Engineering and duration for the course was 8hrs which includes theory and hands-on session for 2 days.

Virtualization is software used to simulate hardware. It is the fundamental technology that powers cloud computing which delivers computing resources, software or data as a service through the Internet. Today, Virtualization is applied everywhere from mobile devices to Fortune 500 companies.

- Day 1: Students had theory and hands-on session on topics which includes two lab session i.e., Creating a Virtual Machine and Virtual Machine Files and Snapshots
- Day 2: students completed two more lab sessions which includes Virtual Machine Cloning and Exporting and Virtual Machine Networking.

On the same day afternoon Mr. Sachin Regional manager,VMware IT Academy gave an insight to students regarding the 2<sup>nd</sup> phase of certification in continuation after completion of 1<sup>st</sup> phase of online virtualization course and get certified by VMWare IT Academy

This course is designed to prepare students for VMware's VCA (VMware Certified Associate)Digital Business Transformation (VCA-DBT) video-based course or the IT Solutions for Digital Businesses course offered by a VMware IT Academy

The Objectives of online certification course are:

- Explore creating a virtual machines and the benefits
- Move from a physical environment to a virtual one
- Describe types of virtualization used for data centers
- Describe virtualization, virtual machines, hypervisors, and VMware vSphere® components
- Describe the concepts of server, network, storage, and desktop virtualization
- Understand how individuals and businesses benefit from virtualization
- Access embedded videos and labs to help you along the way

#### CHAPTER LIST

- Introduction to Virtualization
- The Hypervisor
- The Data Center

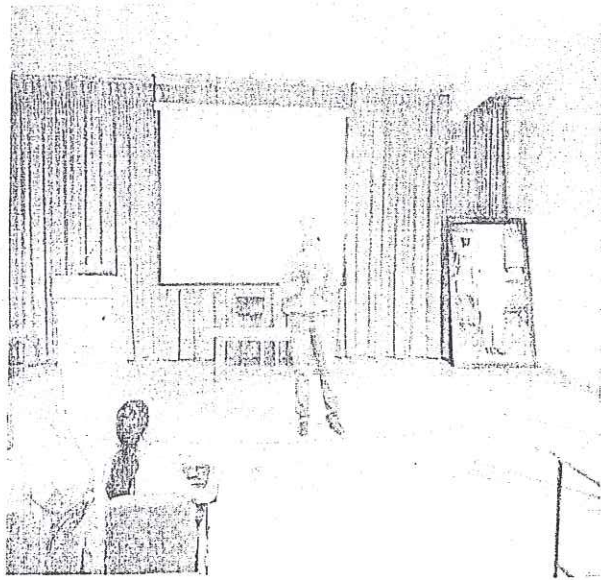
The following lab sessions conducted during hands-On

- Creating a Virtual Machine
- Virtual Machine Files and Snapshots
- Virtual Machine Cloning and Exporting
- Virtual Machine Networking

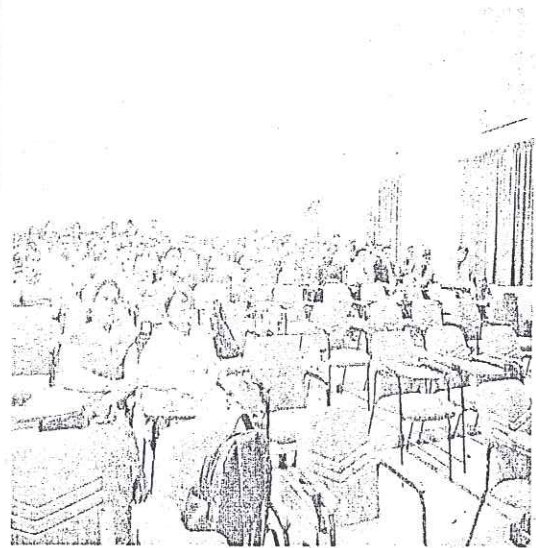
After the completion of course all the students are certified with digital badge by VMWare IT Academy.

  
**PROF & HEAD**  
**MASTER OF COMPUTER APPLICATIONS**  
M. Visvesvaraya Institute of Technology  
Munasaranahalli

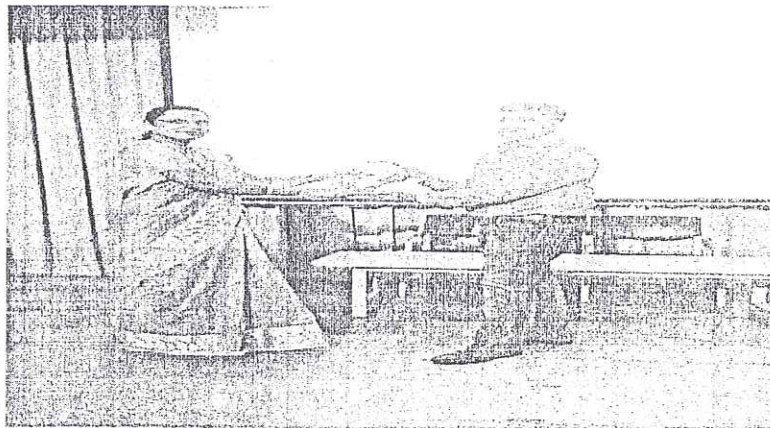




Resource person addressing  
the students



Section of Audience



Felicitating Resource person

# SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY

## FEEDBACK FORM

### ONLINE CERTIFICATION ON VIRTUALIZATION FROM VMWARE

Oct 29-30, 2018

NAME: Vishwanath Krishna Hegde  
SEM: VI<sup>th</sup>

USN: 1NU17MCA82  
BRANCH: MCA

1) What is your overall assessment of the event? (1 = insufficient - 5 = excellent)

1                      2                      3                      4                      5

2) Which topics or aspects of the workshop did you find most interesting or useful?

Testing and Development

3) Did the workshop achieve the programme objectives?

Yes                       No

If no, why?

4) Knowledge and information gained from participation at this event?

Met your expectations

Yes

No

Somehow

Will be useful/applicable in my work  
at all

Definitely

Mostly

Somehow

Not

5) Please comment on the organization of the event (from 1 = insufficient to 5 = excellent)

1                      2                      3                      4                       5

6) Comments and suggestions (including activities or initiatives you think would be useful, for the future)

It is very useful workshop, ever

Vish  
SIGNATURE OF PARTICIPANT





SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
BANGALORE 562 157



DEPARTMENT OF BIOTECHNOLOGY

*CORDIALLY INVITES ONE & ALL*

TO

# “Biosolemnates”

**Soft Skill Development Program for  
students of BT department**

<b>TIME</b>	:	<b>9 am to 3.30pm</b>
<b>DATE</b>	:	<b>29<sup>th</sup> September 2018</b>
<b>VENUE</b>	:	<b>BT Department</b>

### Events:

1. Mock Interview
2. Technical Quiz
3. Project Idea Presentation
4. Group Discussion

All staff  
K NB  
K. S. Jeyaraj  
27/9/18

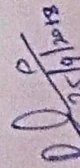




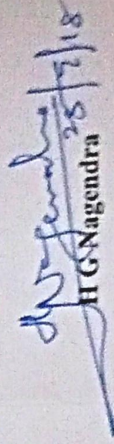
Department of Biotechnology  
Sir M Visvesvaraya Institute of Technology  
Biosolemnates 2018 -Soft Skill Development Program  
Event Schedule 29/09/2018



Sl. No.	Date	Timing	Activity	Target Group	Venue	Awards	
1.	26/09/2018	3.30 - 4.20 pm	Quiz Screening for Technical interview (MCQs)	7 <sup>th</sup> Semester Selected 10	BT Class Room	-	
2.	29/09/2018	9:30 am - 1:30 pm	Group Discussion	7 <sup>th</sup> Semester	BT seminar Hall	1 <sup>st</sup> place 2 <sup>nd</sup> place	
3.	29/09/2018	9:30 am - 1:30 pm	Mock Interview	7 <sup>th</sup> Semester Selected 10	Panel 1 : BT library Panel 2 : Downstream lab	1 <sup>st</sup> place 2 <sup>nd</sup> place	
4.	29/09/2018	9:30-10 am	Quiz Prelims	3 <sup>rd</sup> Semester	BT Class Room		
5.	29/09/2018	10.30am - 12:30 pm	Quiz Finals	3 <sup>rd</sup> Semester	BT Class Room	1 <sup>st</sup> place 2 <sup>nd</sup> place	
6.	29/09/2018	10.30am - 12:30 pm	Project Idea Presentations	3 <sup>rd</sup> Semester	BT Class Room	1 <sup>st</sup> place 2 <sup>nd</sup> place	
7.	29/09/2018	1:30 -2.30 pm	<b>LUNCH</b>				
8.	29/09/2018	2.30-3.30 pm	Valedictory & Prize distribution		BT seminar Hall	*****	

  
25/9/2018  
Mrs. Rashmi K V

Faculty coordinator

  
25/9/18  
H.G. Nagendra

HOD  
Dr. H.G. Nagendra  
Professor & Head  
Department of Biotechnology



**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY  
HUNASAMARANAHALLI, VIA: YELAHANKA, BANGALORE – 562 157  
DEPARTMENT OF BIOTECHNOLOGY**

**“Biosolemnates- Soft Skill Development Program” on 29<sup>th</sup> September 2018.**

**Report**

Department of Biotechnology, Sir MVIT organized one day soft skill development program under the title of “**Biosolemnates**” on Saturday the 29<sup>th</sup> September 2018. The various activities of the program were Mock interview, Group Discussion, Project Idea Presentations and Technical quiz.

Final year students were involved in the Mock interview activity to improve their skills of facing the interviews. There were two panels Mock interview was set. First panel included 8 experts from the industries like Monsanto, AstraZeneca, Quantumzymes, Quintiles, GE Helathcare and Aspartika. The second panel included 8 elite alumni of the department who are in various reputed industries and institutes line NCBS, BeckmanCoulter etc. A total of ten 7<sup>th</sup> semester students were selected for the Mock interview through a written quiz screening. Every student faced both the interview panel and three of them are considered as the best performers by the panellists.

The rest of the 7<sup>th</sup> semester students were involved in Group discussion activity conducted by Mr Aayush, a professional GD master.

The 3<sup>rd</sup> semester students involved in project idea presentations and also in technical quiz.

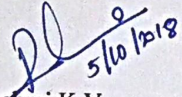
The activities continued till 1.30 PM followed by lunch.

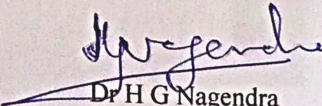
Dr V R Manjunath, Principal, Sir MVIT visited the department during the activities and congratulated the faculty and students towards the successful conduction of the event.

In the valedictory session technical experts from the company addressed the students regarding their performance and suggested the improvements.

All the winners, guests and co-ordinators were presented the medicinal plants.

Overall the event was greatly appreciated by the students towards their soft skill improvement.

  
Rashmi K V  
Assistant Professor & Event Co-ordinator

  
Dr H G Nagendra

**Dr H.G. Nagendra**  
Professor & Head  
Department of Biotechnology  
Sir M Visvesvaraya Institute of Technology  
BANGALORE - 562157





Biosolemnates 2018





Biosolemnates 2018







Parents Meet 2018



**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY**  
**HUNASAMARAHALLI, VIA: YELAHANKA, BANGALORE – 562 157**  
**DEPARTMENT OF BIOTECHNOLOGY**

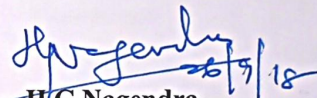
Date: 26.09.2018

**CIRCULAR**

This is to inform that the department is organizing “**Biosolemnates- Soft Skill Development Program**” on 29<sup>th</sup> September 2018. All the faculty and staff are hereby requested to extend due support to make the event successful. The event schedule is enclosed herewith for your reference. We solicit your kind cooperation in this regard and oblige.

  
Mrs. Rashmi K V

Faculty coordinator

  
H/G Nagendra  
Dr H.G. Nagendra  
Professor & Head  
Department of Biotechnology  
Sir M Visvesvaraya Institute of Technology  
BANGALORE - 562157

1. Dr CSN

2. Dr MM

3. Dr CR

4. Dr PN

5. Mrs AN

6. Mr JK

7. Ms SB

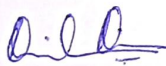
8. Mr MR

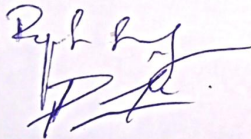
9. Ms RH

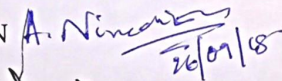
10. Mr IC

11. Mr BNM

12. Mr PH



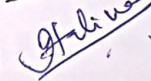


  
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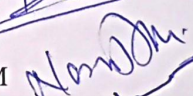


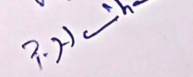
  
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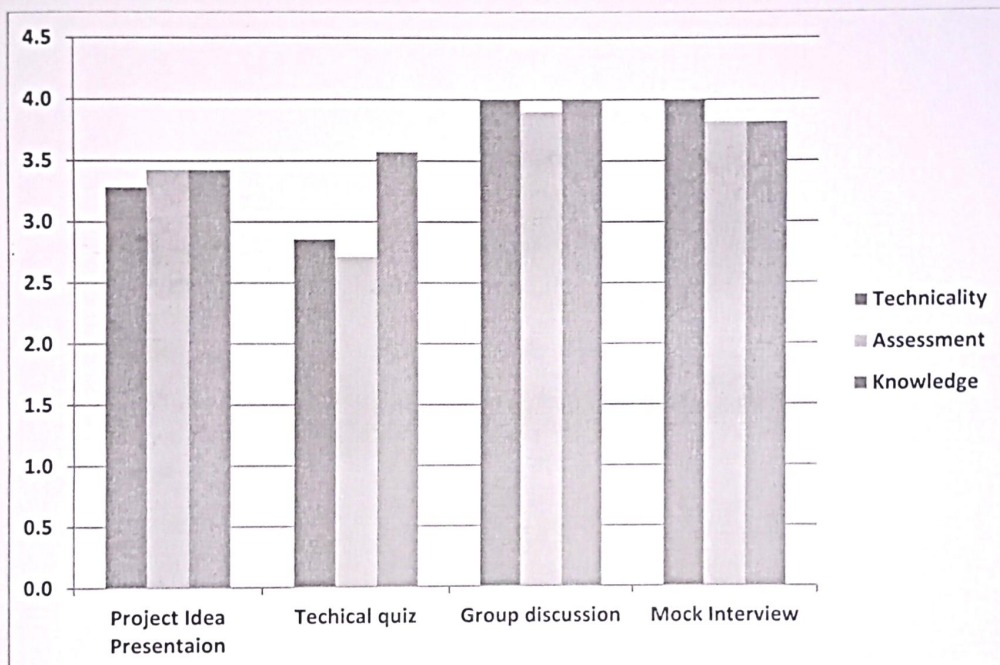
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY  
HUNASAMARANAHALLI, VIA: YELAHANKA, BANGALORE – 562 157  
DEPARTMENT OF BIOTECHNOLOGY

“Biosolemnates- Soft Skill Development Program” on 29<sup>th</sup> September 2018.

Impact Analysis

Based on the feedback of the students on various activities conducted

Assessment scale: 1 to 4

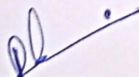


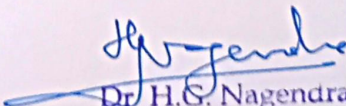
Action Plans:

For project idea presentation and Technical quiz competition the groups could be made including higher and lower semester students, to overcome the disparity and to achieve better understanding and presentation of the concepts.

Technical quiz could be handled better by a good quiz master. Questions and rounds could be framed representing all the disciplines of Biotechnology.

Both GD and Mock interview activities were highly appreciated by all the participants. In the upcoming events more students could be exposed these activities.

  
Rashmi K V  
Co-ordinator

  
Dr. H.S. Nagendra  
Professor & Head  
Department of Biotechnology  
Sir M Visvesvaraya Institute of Technology  
BANGALORE - 562157



J



DEPARTMENT OF BIOTECHNOLOGY  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
BANGALORE 562 157

*CORDIALLY INVITES ONE & ALL*

A

To

The Inaugural Session of the  
3<sup>rd</sup> Integrative workshop

On

Downstream Processing of Phytopharmaceuticals  
Research & Industrial Applications

I

V

DATE & TIME	: Saturday, 25 - 08 - 2018 @ 11: 00 AM
VENUE	: BT SEMINAR HALL, SIR M.VIT, BANGALORE
CHIEF GUESTS	: DR. V SUNDARESAN, SR. SCIENTIST, CIMAP DR. U V BABU, HEAD R & D, HIMALAYA
PRESIDED OVER BY:	DR. V R MANJUNATH, PRINCIPAL, SIR MVIT
VENUE	: BT DEPARTMENT, SIR MVIT CAMPUS

I

K

P.S:

- Duration: For 10 Saturdays from 11AM to 5PM (25/8/18 to 3/11/18)
- Course Modules are conducted by Subject Experts from Himalaya Drug Company, Bangalore



**Third Integrative Workshop on  
Downstream Processing of Phytopharmaceuticals - Research & Industrial Applications Duration - 10 Days ( Only on Saturdays)  
25<sup>th</sup> August - 3<sup>rd</sup> November, 2018  
Venue : Department of Biotechnology, Sir.MVIT College, Bangalore-562157**



**INTRODUCTION**

In recent years there is a tremendous growth in herbal edicaments and a progressive popularity in accepting additional medicines and Ayurveda as a system, even in Western / European countries. With the present potential of approximately 70-80 billion dollars of global market, the herbal industry is expected to touch around 5 trillion dollars by 2050. India has a strong indigenous knowledge of additional therapies and huge untapped resources to become a front runner in the area of herbal drug discovery. Indian Industry has to gear up to become a leader in herbal products, and develop associated critical talent pool in the areas like pharmacognosy, phytochemistry, bioprocess engineering, biotechnology, tissue culture, medicinal chemistry, bioassays and clinical trials, etc.

In IT scenario, Pharma industry has diversified its focus and funds towards developing new molecules which can be patented. The unexplored knowledge of potential therapeutic substances from the herbs can be a treasure for drug research in India.

The skill set available to work in this developing sector is diminishing, as interests of the graduates is skewed towards affluent professions like IT and other allied services. The courses offered in biological sciences and biotechnology are not aligned with the requirement of industries, and thereby the qualified graduates often find difficulty in getting suitable jobs. This workshop will not only help the students to get acquainted to the technological advancements in the pharma industry but also expose them to various opportunities available in the phytopharmaceuticals sector.

**SIR MVIT**

Started in 1986, Sir.MVIT has been an institute of technical reputation in the state of Karnataka, offering nine undergraduate programmes and five post-graduate programmes. The Institute is affiliated to Visvesvaraya Technological University (VTU) and approved by the All India Council for Technical Education (AICTE). The Institute is also certified by DSIR, SIRO and ISO-9001:2008. Most of its courses are accredited by the National Board of Accreditation (NBA), New Delhi. Seven of its departments are declared as R & D centers by VTU. The faculty of the Institute are carrying out projects sponsored by various funding agencies like AICTE, UGC, AR&D, DST, DPT, VTU, Ministry of power etc.

**DEPT. OF BIOTECHNOLOGY**

Sir MVIT was the first college under VTU to realize the need for an Engineering Course in Biotechnology wherein a student's mathematical abilities, computational talent and analytical skills, could be trained to appreciate the complexities of the biological world. The long-term objective of developing such an interface is directed towards sustainable growth & development, while generating products relevant to society. After its inception in 2002, the Department of Biotechnology at Sir MVIT has relentlessly worked towards targets and milestones. Equipped with quality lab facilities for graduate, post-graduate and research programs, the department is aiming to achieve excellence in select to domain related bioscience, bioengineering and biotechnology.

**FACILITATORS**

- |  |  |
|--|--|
| <b>Module - 1</b><br>(25 <sup>th</sup> Aug & 1 <sup>st</sup> Sept) | <b>Module - 3</b><br>(22 <sup>nd</sup> & 29 <sup>th</sup> Sep & 6 <sup>th</sup> Oct) |
| Dr. Ganesh   | Dr. U V Babu   |
| Dr. R. Kannan  | Dr. Vijayakumar  |
| Dr. Prasanna   | Dr. Priyank Mangal   |
| Mr. Zakir Hussain  | Mr. Sharath Kumar L.M  |
| Mr. Sumanth  | <b>Module - 4</b> (13 <sup>th</sup> & 27 <sup>th</sup> Oct)                          |
| Mr. Sandeep  | Dr. Vishwanathan, Dr. U.V. Babu  |
| <b>Module - 2</b><br>(8 <sup>th</sup> & 15 <sup>th</sup> Sept)     | <b>Module - 5</b> (3 <sup>rd</sup> Nov)  |
| Dr. Gururaj  | Inspire by Leaders   |
| Dr. Dhananjaya   |  |
| Mr. Raghavendra  |  |

**MODULES & DURATION**

- |                          |                    |
|--------------------------|--------------------|
| <b>Total Duration</b>    | : 10 Saturdays     |
| <b>Every Saturday</b>    | : 10 am - 4 pm     |
| <b>Theory Classes</b>    | : 2 h on Saturdays |
| <b>Hands on Sessions</b> | : 3 h on Saturdays |
| <b>Total Credits</b>     | : 50 Credits       |
| <b>Total Seats</b>       | : Limited to 30    |

**MODULE 1 (10 CREDITS)**

- Introduction to the Indigenous systems of medicines**
1. Ayurveda
  2. Siddha
  3. Unani
  4. Drug substances - Herbs, Animals, Minerals, Metals
  5. Proprietary Medicines
  6. Doctrine of Signatures

- Bioethnobotany**
1. Ethnobotany
  2. Bioprospecting
  3. Biopiracy
  4. TRDL

**Biodiversity**

1. Approximate zones
2. Biodiversity Hotspots
3. IIS

- National & International trade on endangered species**
1. International Regulation: CITES
  2. National Regulation - Negative list

**Pharmacognosy & GAP**

1. Herbs - authenticity, quality, purity, safety
2. Authentication of herbs - Microscopic; Macroscopic; powder characters
3. DNA fingerprinting/ Barcode
4. DNA fingerprinting/ Barcode
5. Herbs cultivation
6. Good Agricultural and Collection Practices.

**MODULE 2 (10 CREDITS)**

**Plant Biotechnology**

1. Introduction
2. Scope of biotechnology
3. Green revolution
4. Impact of plant Biotechnology on human kind
5. Basics for laboratory setup

**Plant Tissue Culture (plant cloning)**

1. Recombinant DNA technology (Gene cloning)
2. Hormone Functions in Plants
3. Various kinds of media
4. Composition of media and its significance
5. Enhancement of secondary metabolites

**Endangered species and Biotechnology approaches**

1. Introduction of Endangered sp.
2. Role of Tissue culture in endangered species with respect to CITES, NBA, MBP
3. Application of biotechnology in Conservation of species

**Bioprocessing engineering and its Industrial applications (airy root culture in medicinal plants)**

1. What is hairy root culture?
2. How it is beneficial in Plant system
3. Advantages of HR culture
4. Methods involved in HR culture
5. Role of A. tumefaciens to Genetically Engineer Plants

**What is a GMO and Issues of Non-GMO herb materials?**

1. Introduction of GMO plants in India
2. What is the difference between a traditional breed and GMO?
3. Current Status of GM Crops in India
4. Guidelines for the Safety Assessment of Foods Derived from GMO Plants
5. Regulatory framework for GMOs in India

**Hydroponics: An Alternative Plant Growing Method**

1. Introduction
2. Types of Hydroponics
3. Methods involved in Hydroponics
4. Advantage of the process

**MODULE 3 (15 CREDITS)**

**Natural Product Chemistry**

1. Basics of Natural Product Chemistry
2. Classification of Natural Products
3. Drug Discovery from Natural Products
4. Downstream processing of herbs/plant materials
5. Analytical and Bioactive markers

**Extraction & Isolation of Bioactive compounds**

1. Types of Extraction
2. Concentration and Drying
3. Advanced extraction techniques
4. Chromatography
5. Characterization of Natural Products

**Spectroscopy**

1. Basics of Spectroscopy
2. UV & IR Spectroscopy
3. Nuclear Magnetic Resonance (NMR)
4. Mass Spectroscopy
5. Advanced spectroscopic techniques for identification of bioactive markers
6. Assignments / Group Activities / Quiz / Presentations

**MODULE 4 (10 CREDITS)**

**Basics of Process Engineering**

1. Introduction
2. Application of process engineering to industries

**Industrial set up of Phytopharmaceuticals**

1. Comparison of lab and commercial process

**Lab Scale to Pilot Scale**

1. Process design and scaling
2. Concept of scale up

**Process Validation**

1. Process Design
2. Process Qualification
3. Process Verification

**Extraction Process**

1. Introduction to commercial scale extraction process
2. Various types of extraction processes
3. Advance extraction techniques

**Concentration Process**

1. Introduction to concentration process
2. Selection of process parameters

**Drying Process**

1. Introduction to drying, different industrial drying methods
2. Selection of drying techniques

**Recent advances in automation**

1. Introduction to process automation
2. Need for process automation
3. Advances in process automation

**MODULE 5 (5 CREDITS)**

- Inspiring Talks by Leaders, Entrepreneurs and Experts
- Assignments / Group Activities / Quizzes / Presentations / Discussions

**Credits and Assessments**

Sl. No	Module	Grade Point	Letter Grade
1	1	10	A
2	2	10	A
3	3	10	A
4	4	10	A
5	5	10	A
6	6	10	A
7	7	10	A
8	8	10	A
9	9	10	A
10	10	10	A

Assessments in the form of Group Activities / Quizzes / MCQs, Idea Presentations / Discussions shall be conducted by industry experts and Facilitators to grade the candidates

**Who Can Attend**

**Eligibility:** Graduate/Post Graduate students from Basic sciences, Life Sciences and Engineering sciences like Pharmacy, Chemistry, Botany, Zoology, Microbiology, Biochemistry, Biotechnology, Genetics, Genetic Engineering, Biotech Engineering and Chemical Engineering can register.

**Course Fees & Registration Details**

Please Contact the Faculty/Course Coordinator and register for the program by paying the defined fees on or before 21<sup>st</sup> August 2018 at the following

**ADDRESS**

**Dr C Rajendra Singh**  
Associate Professor, Department of Biotechnology,  
Sir M Visvesvaraya Institute of Technology,  
Krishnadevarayanagar, Hanasamaranahalli  
International Airport Road, Bangalore 562157  
Contact: 91-80-28477026; +91-9341809544  
Email: rajendrabiochem@gmail.com  
Course Fees: Rs. 2,000/-  
(Rupees Two Thousand Only)

- ◆ Certificate of Participation will be only given to those registered candidates who possess a minimum of 50% attendance at the workshop and secure a Credit Point Average of >5.0
- ◆ Certificate of Merit with Course Grades and Awards will be distributed on the last day of the event to the Top 5 performers of the workshop
- ✓ Participants can avail the college bus facility for these 10 Saturdays to reach the college campus



DEPARTMENT OF BIOTECHNOLOGY  
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY  
BANGALORE 562 157

Date: 03.07.2018

REF No./VIT/2017-18/104

To  
The Principal  
Sir M VIT, Bangalore 562 157

Respected Sir,

Sub: Request to provide necessary permission and extend needful financial support towards the conduction of the Third Intensive workshop on Downstream processing of phytopharmaceuticals - Research & Industrial applications - Reg.

As you aware, as per the requirements of NBA and NAAC, we need to conduct lectures and lab sessions (beyond the syllabus) so as to facilitate the graduates hone their skills towards the job market requirements. In view of this, the department is planning the "Intensive workshop on Downstream Processing of phytopharmaceuticals - Research & Industrial applications" for the third consecutive year. The program would be on all Saturdays, for a duration-10 weeks from 18<sup>th</sup> August to 3<sup>rd</sup> November, 2018. Similar training sessions were successfully conducted during last two years as well, and the response of the participants has been very encouraging. The candidates who have undergone this training are all working at the best places now.

All the session would be conducted by Industry experts from Himalaya Drug Company, Bangalore. This training program would have 5 modules each of 10 credits (50 hours) and 50 credits). Based on students' performance in the weekly tests and lab sessions, grading will be done, and a Certificate (with their grades) would be provided by the Company. Our lab facilities would be utilized by the company for the lab sessions., along with the faculty coordinators.

Hence, we request your kind self to permit us to conduct the above workshop and oblige. Each participating student will be charged a course fee of Rs. 1000/- (Rupees One thousand only). Since the overall expenses would be to the tune of Rs. 60,000/=, we sincerely request Sri KET to kindly sanction an amount of Rs. 30,000/= (Thirty Thousand Only) for this industry-assisted Student Development Program and oblige. A copy of the budget is enclosed herewith for your kind perusal.

Thanking you,

Rajendra Singh  
Dr. Rajendra Singh  
(Coordinator) 3/7/18

Sincerely yours

H.G. Nagendra  
H.G. Nagendra 3/7/18  
Dr H.G. Nagendra  
Professor & Head  
Department of Biotechnology  
Sir M. Visvesvaraya Institute of Technology  
BANGALORE - 562157


3/7/18

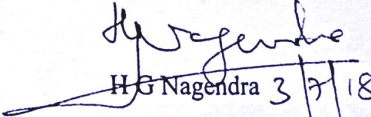
**DEPARTMENT OF BIOTECHNOLOGY  
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY  
BANGALORE 562 157**

**10-Saturday's Intensive Workshop on Downstream Processing of  
Phytopharmaceuticals - Research & Industrial Applications**

**18<sup>th</sup> August to 3<sup>rd</sup> November 2018**

Receipts	Amount (Rs)	Expenditure	Amount (Rs)
Registration Fees for n 30 participants (30 X Rs. 1000)	30,000	Travel expenses for industry experts (10 experts @ Rs. 1,000 per day)	10,000
Contribution from Sri KET	30,000	Honorarium for Subject Experts (10 experts @ Rs. 2,000 per day)	20,000
		Lunch and refreshments for subject experts, faculty coordinators and support staff (@ Rs.1,000 per day)	10,000
		Bouquets and Mementoes for Subject Experts (@ Rs.1,000 per expert for 10 persons)	10,000
		Printing & Stationery (Banners, Brochures, Hand-outs, Certificates)	10,000
<b>Total</b>	<b>60,000</b>	<b>Grand Total</b>	<b>60,000</b>

  
Dr. C. Rajendra Singh  
(Coordinator)

  
H.G. Nagendra 3/7/18  
H.G. Nagendra  
Professor & Head  
Department of Biotechnology  
S. M. Visvesvaraya Institute of Technology  
BANGALORE - 562157



**SRI KRISHNADEVARAYA EDUCATIONAL TRUST**  
No. 16, Ballari Road, Sadashivanagar, Bengaluru – 560 080

Ref.No.KET/ 157 /2018-2019/546

Date: 17/07/2018

**NOTE:**

Sub: Financial assistance for organizing Third Intensive Workshop on “Downstream Processing of Phytopharmaceuticals – Research and Industrial Applications” - Reg.

Ref: Letter from HOD, Dept. of Bio-Technology No. VIT/BT/104/2017-2018, dated 03/07/2018, signed by HOD and recommended by Convenor, Researc Advisory Committee, with Principal's endorsement No. 1648, dated 04/07/2018.

\*\*\*

With reference to the above, this is to convey approval for organizing Third Intensive Workshop on “Downstream Processing of Phytopharmaceuticals – Research and Industrial Applications” as per the requirement of NBA and NAAC to hone the skills of students to suit to the job market requirements, on Saturdays for a duration of 10 weeks starting from 18<sup>th</sup> August to 3<sup>rd</sup> November, 2018, by industry experts from Himalaya Drug Company, Bengaluru.

Rs.30,000/- (Rupees Thirty Thousand only) is granted which may be drawn from Principal's SB account and reimbursement claimed later with duly audited bills and vouchers

  
(K. SYAMA RAJU)  
SECRETARY

  
To  
The Principal,  
Sir MVIT, Bengaluru – 562 157.

Copy to:

1. The HOD, Dept. of Bio-Technology, Sir MVIT, Bengaluru.
2. Accounts Officer, Sri KET, Bengaluru

By BIL

Xerox ✓

**SRI KRISHNADEVARAYA EDUCATIONAL TRUST**  
No. 16, Ballari Road, Sadashivanagar, Bengaluru – 560 080

Ref.No.KET/ 157 /2018- 2019/546

Date: 17/07/2018

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Rs.30,000/- (Rupees Thirty Thousand only) is granted which may be drawn from Principal's SB account and reimbursement claimed later with duly audited bills and vouchers

  
(K. SYAMA RAJU)  
SECRETARY

*or CR*  
*dy*  
*26/7/18*

To  
The Principal,  
Sir MVIT, Bengaluru – 562 157.

Copy to:

1. The HOD, Dept. of Bio-Technology, Sir MVIT, Bengaluru.
2. Accounts Officer, Sri KET, Bengaluru

By BIL



**SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY  
BANGALORE- 562 157  
DEPARTMENT OF BIO – TECHNOLOGY**

**Third Integrative Workshop on  
Downstream Processing of Phytopharmaceuticals- Research & Industrial  
Applications Duration – 10 Days ( Only on Saturdays)-  
25<sup>th</sup> August -3<sup>rd</sup> November, 2018  
(collaborative efforts of Himalaya Drug Company & Sir MVIT)**

<b>INAUGURAL SCHEDULE</b>		
<b>25<sup>th</sup> August 2018</b>		
11:00- 11:05	Invocation	<b>Lakshmi Srilekha VII Semester BE Biotechnology, Sir MVIT</b>
11:05 – 11:15	Welcome Address	<b>Dr H G Nagendra, Prof and Head Department of Biotechnology, Sir MVIT</b>
11:15- 11:20	Lighting of lamp	<b>By Dignitaries</b>
11:15 - 11:20	Chief Guest Address	<b>Dr. Sundaresan V (Senior Scientist CIMAP)</b>
11:20 – 11:25	Chief Guest Address	<b>Dr. U V Babu (Head R&amp; D- Phytochemistry, HDC)</b>
11:25- 11:30	Presidential Address	<b>Dr. V R Manjunath, Principal, Sir MVIT</b>
11:30- 11:35	Vote of Thanks	<b>Dr C Rajendra Singh, Associate Prof. Dept of BT, Sir MVIT</b>



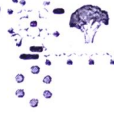
WELCOME TO  
Third Intensive Workshop on Downstream Processing of Phytopharmaceuticals - Research & Industrial Applications  
Duration - 10 Saturdays (25th August to 3rd November, 2018)  
(A collaborative effort of Himalaya Drug Company and Sir MVIT)

**Himalaya**  
SINCE 1930



Venue: Dept. of Biotechnology, Sir MVIT

Organized By  
Department of Biotechnology  
Sir M Visvesvaraya Institute of Technology  
Kethnadeswara Nagar, New International Airport Road  
Hunasamaranahalli, Bangalore - 562157





**SRI KRISHNADEVARAYA EDUCATIONAL TRUST  
SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY**

Krishnadevarayanagar, Hunasamaranahalli, Yelahanka,  
International Airport Road,  
Bengaluru- 562 157  
Phone: 080-28467248,28477024 web site: [www.sirmvit.edu](http://www.sirmvit.edu)

**Two-Day's Workshop  
On  
CONCRETE MIX DESIGN- THEORY AND PRACTICE  
24<sup>th</sup> - 25<sup>th</sup> August 2018  
REPORT**



**ORGANISED BY DEPARTMENT OF CIVIL ENGINEERING**

**ORGANISING CHAIR**

Dr. V.R. Manjunath, Principal, Sir MVIT

**CONVENORS**

Mr. H. P. Mahendra Babu, Head, CED  
Dr. H. Ravi Kumar, Assoc. Prof. CED

**ORGANIZING COMMITTEE**

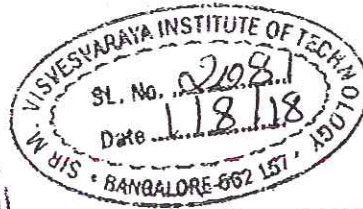
Sri K.V.R.Prasad	Smt. Ramya.N
Dr.S.Shivanna	Smt.Vyshnavi.D.R
Smt. Anitha.J	Smt.Agilin.R
Smt.Pradeepa.S	Ms.Bhavya.S
Smt.Tamil Selvi N	MS.Saranya.S

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To  
The Principal  
Sir MVIT  
Bangalore.



Date: 30/07/2018

Sub: Request regarding conduction of two day workshop on  
"Concrete Mix Design -Theory and Practice "

Respected Sir,

The Department of Civil Engineering is planning to conduct Two Day Faculty development workshop on "Concrete Mix Design-Theory and Practice on 24<sup>th</sup> and 25<sup>th</sup> August 2018,

The main themes are

- 1). Concrete- Materials (Day One)
- 2). Concrete Mix design (Theory and Practical)(Day Two)

This workshop is intended for faculty of Civil Engineering. The "QCrete Ready mix (India) Pvt. Ltd" will be invited to share their knowledge & educate the gathering during the workshop. In this regard we have prepared a budget proposal for your kind approval to conduct this program. The expected budget required to conduct this event is around Rs. 40,000/-. The detailed budget break up is enclosed for your kind perusal and approval.

Thanking you,

Yours sincerely

Encl: Budget Proposal

*[Signature]* 1/8/18  
Professor & Head

Department of Civil Engineering  
Sir M. Visvesvaraya Institute of Technology  
Bangalore-562 157.

*Reviewed  
RAC  
10  
Recommended  
by RAC  
1/8/18*

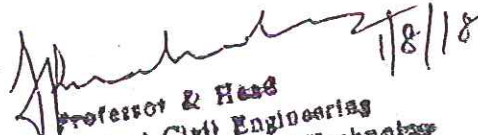
*Forwarded with Best  
compliments to the  
Secretary for kind  
approval of Budget  
Rs. 40,000/-  
07/08/18*

PRINCIPAL  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarajapuram, Hunsarasanahalli,  
International Airport Road, Bangalore-562157.

Sir M.Visvesvaraya Institute of Technology ,Bangalore  
Civil Engineering Department.

TWO DAY WORKSHOP BUDGET PRAPOSAL ( TOTAL 4 SESSIONS)

1. Honorarium ( 2,000 Per Session)		8000
2. Transport (For Two Days)		2000
3. Lunch for Participations		15000
4. High Tea (For Two days)		4000
5. Bouquet & Memento		2000
6. Writing pad & Stationary for participants		2000
7. Certificates		5000
8. Photos , brouchure and Miscellaneous		
TOTAL		40000

  
Professor & Head  
Department of Civil Engineering  
Sir M. Visvesvaraya Institute of Technology  
Bangalore-560 075



**SRI KRISHNADEVARAYA EDUCATIONAL TRUST**

No. 16, Ballari Road, Sadashivanagar, Bengaluru – 560 080

Ref.No.KET/ 56 /681 /2018 – 2019

Date: 16/08/2018.

**NOTE:**

Sub: Extension of financial assistance for organizing a Two Day Workshop on "" by the Dept. of Civil Engg., Sir MVIT.

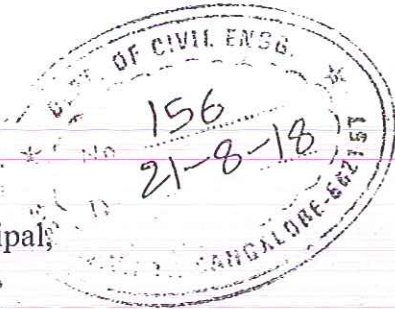
Ref: Letter from the HOD of the Dept. of Civil Engg. vide No. 136, dated 01/08/2018, duly recommended by the Convenor, Research Advisory Committee with Principals' endorsement No. 2081, dated 01/08/2018

\*\*\*

Adverting to the above, this is to convey approval for organizing a Two day workshop on "Concrete Mix Design – Theory and Practice" by the Dept. of Civil Engg., scheduled to be held on 24<sup>th</sup> and 25<sup>th</sup> August, 2018, by inviting experts from "QCrete Ready Mix (India) Pvt. Ltd. for the benefit of faculty members of the Dept.

Rs.40,000/- (Rupees FortyThousand only) is sanctioned to meet the expenditure. The amount may be drawn from Principal's SB account and reimbursement claimed later with duly audited bills and vouchers.

To  
The Principal,  
Sir MVIT,  
Bengaluru.



(K.SYAMA RAJU)  
SECRETARY

F-72

Copy to :

1. The HOD, Dept. of Civil Engg., Sir MVIT, Bengaluru.
2. The Accounts Officer, Sri KET, Bengaluru.

## DECLARATION

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Signature of the Applicant .....

Place: .....

Date: .....

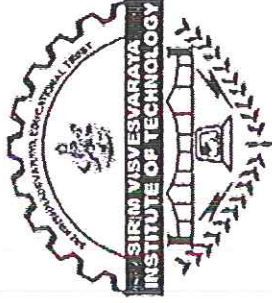
## SPONSORSHIP CERTIFICATE:

Dr./Mr./Mrs.....  
is an employee of our Institute / Organization and is hereby sponsored to participate in the two-day's workshop on "CONCRETE MIX DESIGN -THEORY AND PRACTICE" scheduled on 24<sup>th</sup> and 25<sup>th</sup> August 2018 at Sir M. Visvesvaraya Institute of Technology, Bangalore-562157. He/She will be deputed if selected during the above period.

Signature of the Head of the Institution with seal

Place: .....

Date: .....



## Two-Day's Workshop

On

CONCRETE MIX DESIGN- THEORY AND PRACTICE

24<sup>th</sup> - 25<sup>th</sup> August 2018

Organized by  
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DEPARTMENT OF CIVIL ENGINEERING



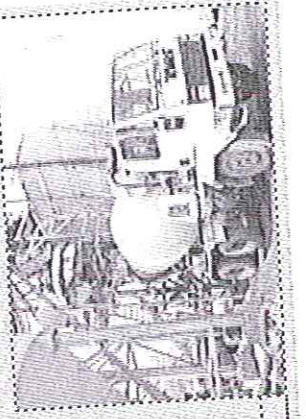
TWO DAY'S WORKSHOP

*on*

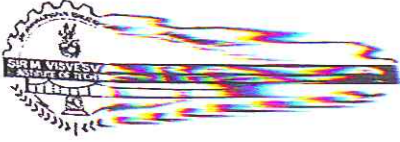
CONCRETE MIX DESIGN - THEORY AND PRACTICE  
24<sup>th</sup> - 25<sup>th</sup> August 2018

*by*

Qcrete Ready Mix (India) Pvt. Ltd







SRI KRISHNADEVARAYA EDUCATIONAL TRUST'S  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF CIVIL ENGINEERING



Two day's Workshop on  
"Concrete Mix Design-Theory & Practice"  
INVITATION

We cordially invite you for the Inauguration function of Two Day's workshop on "Concrete Mix Design-Theory & Practice" on 24<sup>th</sup> August 2018 at 9.00 AM in DAY SEMINAR HALL, Room No- E212.  
We invite you to accompany us for lunch at SIRMVIT Men's Hostel and workshop on the same day.

*T. S. Srinivasan*  
CONVENOR

*[Signature]*  
HOD  
Professor &  
Department of Civil  
Engineering  
Sir M. Visvesvaraya Institute of Technology  
Bangalore-56









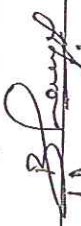



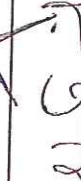







SIR M VISVESVARAYA INSTITUTE OF TECHNOLOGY  
DEPARTMENT OF CIVIL ENGINEERING

TWO DAYS WORKSHOP ON "CONCRETE MIX DESIGN - THEORY AND PRACTICE"

24<sup>th</sup> & 25<sup>th</sup> AUGUST 2018

INHOUSE FACULTY

Sl. No.	NAME	DESIGNATION	SIGNATURE
1	Dr. SHIVANNA S	Asso. professor	
2	Pradeepa S	Asst Professor	
3	Bhanya S	Asst. professor	
4	Anitha J	Asst Prof	
5	Ranjana N	Asst. prof	
6	H. P. Mahendra Babu	Asso. Prof.	
7	Vijshwan D.R.	Asst Prof	
8	N. S. Tanu Selvi	Asst Prof	
9	SARANYA S	Asst PROFESSOR	
10	R. AGILIN	Asst. Professor	
11	K V R PRASAD	Assoc. Prof	
12	H. N. A. U. T. KOMAR	ASSOC PROF	

## DECLARATION

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*Ajayan Kumar*  
Signature of the Applicant

Place: *B. Coe*

Date: *24/08/18*

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Signature of the Head of the Institution with seal.

Place: .....

Date: .....

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Treasurer, Sri KET

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Smt. Ranya.N



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Signature of the Applicant

Place: Bangalore

Date: 24/8/18

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Place: Bengaluru

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Place: .....

Date: .....

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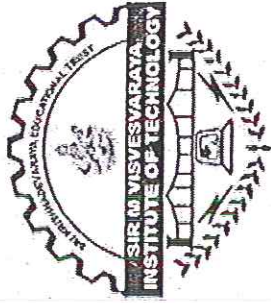
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Signature of the Applicant

Place: Bangalore

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Date: .....

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Signature of the Applicant

Place: ..... *Bangalore* .....

Date: ..... *27.8.18* .....

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## Two-Day's Workshop

On

CONCRETE MIX DESIGN- THEORY AND  
PRACTICE

24<sup>th</sup> - 25<sup>th</sup> August 2018

Organized by  
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Signature of the Applicant

Place: *Bangalore*

Date: *27/08/2018*

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Date: .....

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### ORGANISING CHAIR

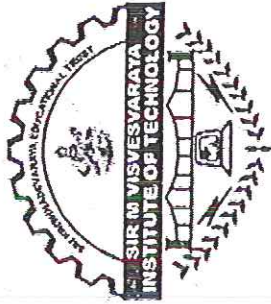
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## DECLARATION

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*Parvath Kumar R*  
Signature of the Applicant  
Place: *Bangalore*  
Date: *24.08.2018*

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Signature of the Head of the Institution with seal

Place: .....  
Date: .....

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*Sanjaneeth N.T*  
Signature of the Applicant

Place: *Bangalore*

Date: *24.08.18*

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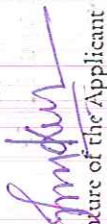
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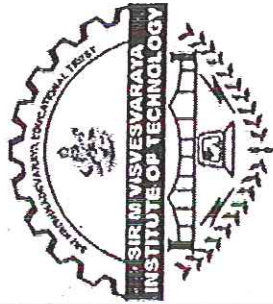
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**SRI KRISHNADEVARAYA EDUCATIONAL TRUST'S  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**



**DEPARTMENT OF CIVIL ENGINEERING**

**PROGRAM SCHEDULE**

**DAY-1 24<sup>th</sup> August 2018**

- 9.00 - 9.30 : Registration  
9.30 - 10.00 : Inauguration  
10.00 - 10.15 : High Tea  
10.20 - 11.30 : Why Concrete is Human?  
11.30 - 12.40 : Correct steps for making Concrete  
12.40 - 13.40 : Lunch  
13.40 - 14.45 : Materials used for Concrete making  
14.45 - 15.45 : Introduction to Ready mix Concrete  
15.45-16.00 : Tea Break & End of Day-1

**DAY- 2 25<sup>th</sup> August 2018**

- 9.15 - 10.15 : Concrete mix Design: Theory, Principles and Logic  
10.15 - 11.15: Concrete mix Design: Material Analysis  
11.15 - 11.30: Tea Break  
11.30 - 13.30 : Concrete mix Design: Procedure  
13.30 - 14.00 : Lunch  
14.00 - 16.00 : Concrete mix Design: Practical

End of Day -2

## Workshop Overview

Concrete has become an indispensable construction material. It is the most commonly used building material other than water in the world. According to the present state of the art, concrete has bypassed the stage of mere four component system, that is, cement, water, coarse aggregate and fine aggregate. It can be a combination of far more number of ingredients. The process of selecting suitable ingredients of concrete and determining their relative amounts with the objective of producing a concrete of the required strength, durability, and workability as economically as possible, is termed the concrete mix design.

Concrete infrastructure constitutes about 60% of the built environment. Further, more than 70% of job opportunities available for Civil Engineers require knowledge of concrete and cement. This Program intends to train Civil engineering faculties/students in the areas of Concrete Mix Design with theory and practice. Through this workshop program we are trying to build the critical gap of connecting the knowledge to practical applications



## **Report of Two Day Workshop on “Concrete mix design – Theory and Practice” conducted on 24<sup>th</sup> & 25<sup>th</sup> Aug 2018.**

At the outset, we would like to express our gratitude and thanks to the Management of Sri KET and Principal for supporting the Civil Engineering Department in organizing a Two Day Workshop on “Concrete mix design – Theory and Practice” conducted on 24<sup>th</sup> & 25<sup>th</sup> Aug 2018, at Faraday Seminar Hall.

The objective of this Two Day Workshop is to train the participants in the areas of Concrete Mix Design theory and practice. Through this training program we are trying to build the critical gap of connecting the knowledge to practical applications. To provide an opportunity to acquire knowledge on recent advances in concrete production and its wide application in the field of Civil Engineering. Over Twenty Two staff member, M.Tech Students and V semester B.E. Civil Engineering students participated in this workshop.

Sri G Prabhakar Raju, Honorable trustee, Sri KET and Chairman, Academic Council was invited as Chief Guest for the inauguration of this workshop. Er. Shelly S. Fernandez and Er. Siddhesh R. Kamath of Qcrete Readymix India acted as the resource persons. Dr. H G Nagendra, Chairman RAC Committee Sir MVIT, presided over the inaugural function.

Welcome note was delivered by Sri H.P Mahendra Babu, Head of the Civil Engineering Department. The opening remarks and significance of the workshop was given by Dr. H. Ravi Kumar, Associate Professor, Department of Civil Engineering, Sir MVIT, and also highlighted the need and significance of Concrete mix design.

### **Day 1**

In the first session, Mr. Shelly S Fernandez, explained how concrete is humane. He explained why it is necessary to take care of concrete in its plastic as well as hardened state; he imparted adequate knowledge about concrete materials science and concrete mix design.

In the second session, Mr. Siddesh R Kamat explained in detail about the different materials that are used in making concrete, and the importance of material selection and quality requirement of the concrete ingredients.

In the third session, Mr. Shelly S Fernandez, discussed the correct steps to make good concrete and also good and bad practices in concreting.

In the fourth session, Mr. Siddesh R Kamat, gave an insight into ready mix concrete, its history, and growth in modern World. He explained the various Technologies involved in ready mix concrete and how the industry is completely automated to meet the need of the rapid growing construction industry.

## **Day 2**

Session one and two: Mix design procedure was dealt with in detail apart from various types of special concretes. Workshop course notes explaining in detail the various steps and codal provisions to be followed in concrete mix design was distributed among the participants.

Session 3 of the workshop saw enthusiastic participants divided into batches undergoing hands on experience in mix designing both with and without use of admixtures, followed by slump tests.

Valedictory session was held at 1:00 pm at Faraday Seminar Hall. Smt. Ramya N, Assistant Professor welcomed the gathering. Two participants Mr. Mohammed Imran, Assistant professor, Department of Civil Engineering, Brindavan college and Mr. Sriram Mustapure, M.Tech Student, UVCE expressed their views on the workshop in which they expressed their happiness over the workshop, presentation by the speaker and also they thanked the Management and especially the principal for his efforts in arranging this workshop. Certificates were distributed by the resource persons to the participants.

In session 4, a Site visit was arranged at QCrete, Concrete Plant, Bettahalasuru Village, Jala Hobli, Bengaluru North Taluk-562157. A team of engineers at Qcrete, Concrete plant welcomed the participants, the participants were again taken to their lab in batches, and the latest equipment to test concrete in fresh as well as hardened state were shown. Later the participants were taken around the RMC plant and were shown the aggregate storage pits, automatic temperature-controlled curing ponds, cement and special cementitious materials storage silos, transit truck etc

We once again thank the Management and Principal for their continuous support and guidance to conduct this Two Day Workshop on “Concrete mix design –Theory and Practice”.

## **CONVENERS**

Dr. H. Ravi Kumar  
Assoc. Prof

Mr. H. P. Mahendra Babu,  
Head of the Department



## CURRICULUM – VITAE

Full Name: *Siddhesh R. Kamat Mhamaj.*

### Education and Qualifications:

- Diploma in Construction Technology (1996), 4 years,  
Fr. Agnel Ashram, Verna, Goa.  
Directorate of Technical Education, Goa, India.
- Certified Concrete Technologist, India.  
NRMCA Concrete Technologist India (CTI).  
*Certification Date: 04/07/2014, Certificate Expiry Date: 03/07/2019.*
- DOEACC 'A' Level Advanced Diploma (2001),  
DOEACC Society (An Autonomous body of Department of Information  
Technology, Ministry of Communications & Information Technology, Govt. of  
India).

### Summary:

*20 + years full time Professional experience.*

### Key Skills:

- experience in Project Management, Plant Auditing, Quality Assurance, Process Improvement, Manufacturing Operations and Validation in Construction industry
- Expertise in handling projects from inception till completion & overseeing all the resource planning
- Possesses a clear understanding of the industry, technology trends with the distinction of instituting quality assurance practices to achieve business excellence at the lowest overall cost
- Skilled in preparing ITP (inspection/test plan), method statements as per QMS and ISO 9001: 2001 standards

- Expertise in conducting internal audits periodically to assess the status of deployment of systems and taking corrective measures for achieving organizational objectives
- *Concrete mix design involving Fly Ash/ GGBS/ Micro-silica and LWC.*
- *Troubleshooting of fresh concrete properties under production, customer queries and grievances.*
- *Technical support to operational team at the concrete readymix batching plant.*
- *After sales technical support regarding hardened concrete properties.*
- *A practical approach to construction with a constant eye towards the progress of the project with Quality Assurance and Commitments, ISO 9001:2001 STANDARDS & client satisfaction with diversified understanding and knowledge of Civil Engineering, Building technology and Construction.*
- Ensuring quality by monitoring incoming, in-process and final inspection of procedures, records & ISO documentations
- Developing processes to ensure smooth establishment of product commercially & conducting regular audits for process compliance
- Ensuring adherence to ISO standards & evaluating vendor performance to ensure supply of quality material
- Implementing various techniques for cycle time reduction and managing identification of opportunities, analysis of data, conduction of tests; cost benefit analysis, implementation & post audits (internal & external)
- Developing production plans & schedules and arranging resources to attain organizational targets as per budgeted parameters
- Devising new process concepts for production optimization & yield improvement and preparing guidelines for the sequencing of manufacturing activities on the shop floor



- Adroit in handling quality assurance and quality control at concrete batching plant and construction site.
- Quality Assurance and Quality Control.
- Health and Safety.
- Thorough knowledge of BS, BS EN, ASTM and Indian Standards.

**Professional Experience :**

***March 2017 to Present***

**Qcrete Readymix (India) Pvt. Ltd**

As a "Head - Quality Control and Production" for their ready-mix concrete plants at Kerala and Karnataka.

***March 2013 to February 2017***

**RMC Readymix (India) (A Division of Prism Cement Limited)**

As a "Dy. Manager, Technical" "Technical Cluster Head" for their ready-mix concrete plants at Mangalore, Manipal, Cochin, Trivandrum and Calicut.

***September 2010 to October 2012***

**Al Turki Cement Products LLC, Muscat, Oman.**

As a "Sr. QA/QC Engineer" for their three Captive Ready-mix concrete plant for "Development of Muscat International Airport", MC-1, Main Contractor: CCC-TAV JV, Project Consultant: Cowi-Larson.

***August 2008 to August 2010***

**RMC Readymix (India) (A Division of Prism Cements Limited).**

As a "Technical Officer" for their ready-mix concrete plants at Sancoale and Kundiam, Goa, India.

***August 2007 to June 2008***

**Al Darwish Engineering WLL., Doha, Qatar.**

As a "QA/QC Engineer" for their following project:

10 Nos. Kindergartens in Doha and Villages, Doha, Qatar.

Project Cost = @ 160 million QR.

***December 2006 to July 2007***

Al-Fara'a General Contracting Co., Abu-Dhabi, U.A.E.

Abraj Al-Raha Project, Abu-Dhabi, U.A.E.

Area -12 acre

Project Cost = @514 million Dhs.

As an "QA/QC Engineer".

***June 2002 to December 2006:***

M/s. Sushila Constructions, Ponda, Goa

"Site Engineer", in-charge for their residential projects at in Goa.

***January 1997 to May 2002:***

M/s. A. K. Associates, Margao, Goa

"Site Engineer", for their residential projects at in and around Margao and in the process prepare detail estimates of projects, inventory of construction materials and Quality Control.

***In-plant Training (Part of academic curriculum):***

***June 1996 to September 1996:***

Mr. Jose F. P. Lourenco, B.E. (Civil)

"Trainee Engineer", for preparation of detailed R.C.C. plans for residential Buildings and Bungalows.

***March 1995 to June 1995:***

Descon, Panjim, Goa.

"Trainee Site Engineer", for their works at Amona, Goa for the construction of Jetty along River Mandovi and Retaining wall for Ms. Sesa Goa Limited.



## SPEAKER PROFILE

Er. Shelly S Fernandez

### Educational Qualifications

- ✚ 1984 Graduated in Civil Engineering From MIT, Manipal-- Mysore University.
- ✚ Post graduate Program in "Concrete Technology and Construction from Institute of Concrete Technology", UK.

With more than 30 years of Experience in Construction, Execution, and Management of Roads, Bridges, Residential Buildings, Cement, Ready Mix Concrete etc.

### Career Milestones

- ✚ 1984-1986- Worked as Site Engineer in M/s Bakthawar Singh Balakrishnan Co. Pvt Ltd. Bhilai for construction of Residential Quarter for SAIL Township, Bhilai.
- ✚ 1986-1998 - Worked has served as Executive Engineer in National Buildings Construction Corporation Ltd. ( A Govt Of India Enterprise) and executed prestigious projects like- First Expressway between Ahmedabad and Vadoadara, Indian Govt. Mint works Hyderabad
- ✚ 1998- 2003 -Worked with M/s Gujarat Ambuja Cements Ltd as Technical Head for Kerala and Mangalore for the period 1998- 2003- delivered lectures on Concrete and conducted workshops on Concrete Mix Design for professionals and students.
- ✚ 2003-2005- Worked with Design Right Lab as Managing Partner.
- ✚ Implemented the concrete mix design for 30 independent houses
- ✚ 2005- 2016- Worked as General Manager- South-1 with M/s RMC Readymix ( India) ( A Division of Prism Cement Ltd)
- ✚ Presently- Working as Managing Director with M/s QCRETE Readymix ( India) Pvt Ltd.

### Membership In Professional Bodies

- ✚ Member Institution of Engineers (India)
- ✚ Member American Concrete Institute.
- ✚ Member Indian Concrete Institute.

Played key role in the formation of Indian Concrete Institute, Kochi chapter in the year 2011, wherein served Two terms as Chairman of the centre 2011- 2015, Governing Council Member ICI 2015- 2017

Shelly S Fernandez

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# CONCRETE MIX DESIGN



**Definition:**

*Mix design – The Technique of choosing the most economical proportion of available materials (Cement, water, fine and coarse aggregates and with or without admixtures)*

- 1) To obtain a COHESIVE Concrete
- 2) Of required WORKABILITY
- 3) The specified STRENGTH
- 4) And the desired DURABILITY.

*IS-456 clause No- 9.2.1 states - As the guarantor of quality of concrete used in the construction, the constructor shall carry out the mix design and the mix so designed( not the method of design) shall be approved by the employer within the limitations of parameters and other stipulations laid down by IS 456*



*Mix design is an art not Science*

*Role of Structural Designers, Concrete Technologist and Site Engineer.*

- a) *Structural Designer- The structural designer specifies minimum concrete compressive strength based on durability aspect like site exposure conditions and as per design aspect of the structure.*
- b) *Concrete Technologists- Based on the structural Engineers input on concrete specifications the concrete technologist design the concrete mix with the knowledge of materials, type of structures, type of supervision to achieve the minimum strength.*
- c) *Site Engineer- Site Engineer is required to make the concrete at site, closely following the parameters suggested by the mix designer to achieve the minimum strength and durability parameters specified by the structural engineer. It is very essential for the Site Engineer to get the feel of the concrete materials and concrete by continuous checks on workability, cohesiveness, and finished surface, strength and durability parameters. It is only then that the Engineer acquires the art of designing concrete mixes.*

## **Concrete Mix Design**

- 1 Concrete Specifications
- 2 Material Properties
  - a) Analysis of Coarse Aggregate and Fine Aggregate
  - b) Analysis Cement
  - c) Water
  - d) Admixture
- 3 Durability
- 4 Workability
- 5 Target Mean Strength
- 6 Water to Cement ratio
  - 6a Water Content
  - 6b Cement Content
- 7 Aggregate Proportion.
- 8 Corrections in Aggregate
- 9 Mix Calculations
- 10 Worksheet for Concrete Mix design
- 11 Worksheet for Concrete Mix Design
- 12 Trials and Corrections
- 13 Tests Conducted
- 14 Conclusions



*Three stake holders to be satisfied for producing good durable concrete*

*Owners - Concrete should satisfy durability properties*

*Workers- Concrete should satisfy the workability without comprising on W/C ratio*

*Engineers- Minimum compressive strength parameters.*

## **1) CONCRETE- SPECIFICATIONS**

### **Factors Influencing Concrete Mix Design**

According to IS 456:2000 and IS 1343:1980 the important factors influencing the design of concrete mix are:

- Grade of Concrete.
- Type of Cement.
- Maximum nominal Size of Aggregate.
- Grading of Combined aggregate.
- Maximum Water/ Cement Ratio.
- Workability.
- Durability.
- Quality Control.

### **Minimum Compressive Strength: -**

It is usually measured in terms of 28th day compressive strength which is defined as characteristic strength (as per IS 456) and also termed as grade of concrete (e.g.: M20, M25, M30, M40 etc.). The characteristics strength is defined as the strength of material below which not more than 5 percent of the test results are expected to fail. (As per IS 456).

### **What is M20 ?**

- M" refers to Mix.
- 20 refers to characteristic compressive strength of 150 mm cube at 28 days in  $N/mm^2$ .
- Depending upon the degree of control available at site, the concrete mix is to be designed for a Target Mean Compressive Strength (TMS)
- The minimum Grade of Plain Concrete (PCC) shall be  $15 N/mm^2$ .
- The minimum grade of reinforced Concrete ( RCC) shall be  $20 N/mm^2$ .

**Minimum characteristic strength of the concrete is chosen from the durability condition.**



## 2) MATERIAL PROPERTIES

### Aggregates - Coarse and Fine

Concrete is a mixture of cementitious material, aggregate, and water. Aggregate is commonly considered inert filler, which accounts for 60 to 80 percent of the volume and 70 to 85 percent of the weight of concrete. Although aggregate is considered inert filler, it is a necessary component that defines the concrete's thermal and elastic properties and dimensional stability. Aggregate is classified as two different types, coarse and fine. Coarse aggregate is usually greater than 4.75 mm (retained on a No. 4 sieve), while fine aggregate is less than 4.75 mm (passing the No. 4 sieve). The compressive aggregate strength is an important factor in the selection of aggregate. When determining the strength of normal concrete, most concrete aggregates are several times stronger than the other components in concrete and therefore not a factor in the strength of normal strength concrete.

Other physical and mineralogical properties of aggregate must be known before mixing concrete to obtain a desirable mixture. These properties include shape and texture, size gradation, moisture content, specific gravity, reactivity, soundness and bulk unit weight. These properties along with the water/cementitious material ratio determine the strength, workability, and durability of concrete.

The shape and texture of aggregate affects the properties of fresh concrete more than hardened concrete. Concrete is more workable when smooth and rounded aggregate is used instead of rough angular or elongated aggregate. Most natural sands and gravel from riverbeds or seashores are smooth and rounded and are excellent aggregates. Crushed stone produces much more angular and elongated aggregates, which have a higher surface-to-volume ratio, better bond characteristics but require more cement paste to produce a workable mixture.

The surface texture of aggregate can be either smooth or rough. A smooth surface can improve workability, yet a rougher surface generates a stronger bond between the paste and the aggregate creating a higher strength.

Most stockpiled coarse aggregate is in the Air Dry state with an absorption of less than one percent, but most fine aggregate is often in the wet state with surface moisture up to five percent. This surface moisture on the fine aggregate creates a thick film over the surface of the particles pushing them apart and increasing the apparent volume. This is commonly known as bulking and can cause significant errors in proportioning volume.

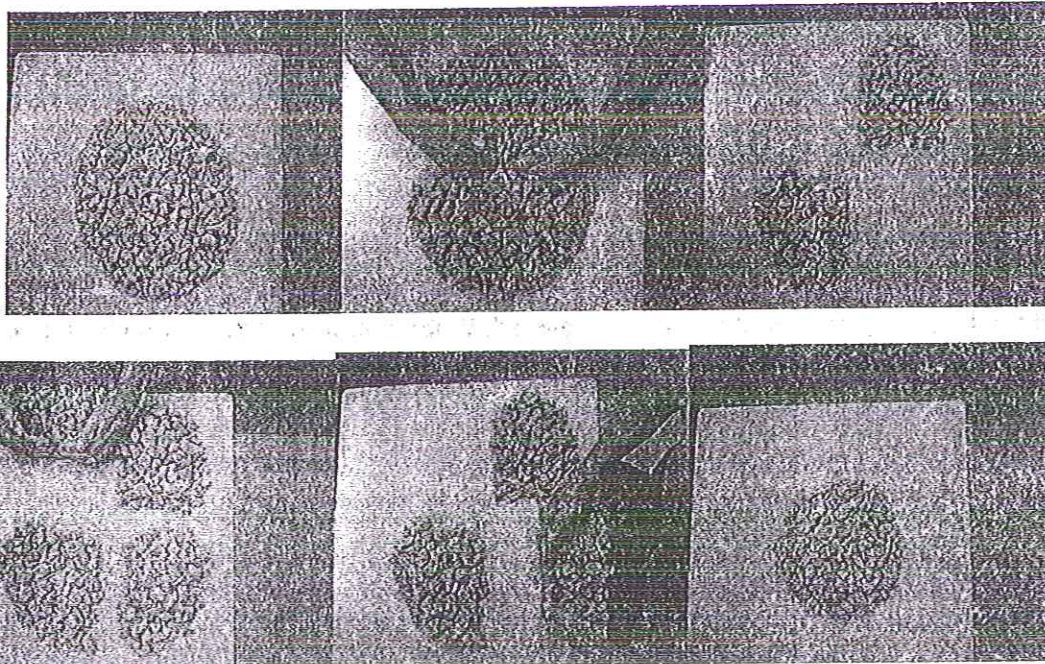
The density of the aggregates is required in mixture proportioning to establish weight-volume relationships. Specific gravity is easily calculated by determining the densities by the displacement of water. All aggregates contain some porosity, and the specific gravity value depends on whether these pores are included in the measurement. There are two terms that are used to distinguish this measurement; absolute specific gravity and bulk specific gravity. Absolute specific gravity (ASG) refers to the solid material excluding the pores, and bulk specific gravity (BSG), sometimes called apparent specific gravity, includes the volume of the



### Quartering of sample for sieve analysis.

To obtain a reduced representative sample for sieve analysis of each aggregate, spread the entire material from the pan onto the lab work table and mix it thoroughly. Divide the aggregate into 4-equal parts and remove the diagonally 2 opposite quarters as shown in fig. Remix the remaining 2 quarters and divide it into 4 equal quarters and remove the diagonally 2 opposite quarters as before. Repeat the quartering process till the quantity of the remaining 2 opposite quarter is about the sample weight required for Sieve analysis.

(Fig- 2)



### Sieve Analysis.

The proportions of the various sizes of particles constituting coarse and fine aggregates are determined by sieving. Fine aggregates have to be dried prior to sieving. The dried sample will give a more accurate analysis.

Coarse aggregates are sieved through the following sieves sizes: 40mm, 20mm, 10mm, 4.75mm

Fine aggregates are sieved through the following sieve sizes: 10mm, 4.75mm, 2.36mm, 1.18mm, 600micron, 300micron, 150micron.



of fine aggregate particles, generally 600 micron passing is in high percentage, the surface of aggregates increases per unit weight. Larger surface area will require more cement paste to bind the aggregate particles together. Due to the increase in surface area of the aggregate, the mix will require more water. To get the required workability without effecting strength or durability it is necessary to also increase the cement content so that water to cement ratio remains unchanged.

Table 2: Grading Limits for fine Aggregates (IS: 383-1970)

IS Sieve	Percentage passing for			
	Zone 1	Zone 2	Zone 3	Zone 4
10 mm	100	100	100	100
4.75 mm	90-100	90-100	90-100	95-100
2.36 mm	60-95	75-100	85-100	95-100
1.18 mm	30-70	55-90	75-100	90-100
600 microns	15-34	35-59	60-79	80-100
300 microns	5-20	8-30	12-40	15-50
150 microns	0-10	0-10	0-10	0-15

Table 3 Sieve Analysis of fine aggregates

Sieves	Retained on each Sieve		Cumulative % Retained	Passing Through		Remarks
	Wt (gms)	%		Wt (gms)	%	
40mm						
20mm						
10mm				1000	100	
4.75mm	7	0.7	0.7	993	99.3	
2.36mm	27	2.7	3.4	996	99.6	
1.18mm	176	17.6	21.0	790	79	
600micron	416	41.6	62.6	374	37.4	Zone II -35-59
300micron	281	28.1	90.7	93	9.3	
150micron	67	6.7	97.4	26	2.6	
Passing 150microns	26	2.6	100			



Before selecting the source it's essential to conduct all routine tests on aggregates as specified in IS 383 for ensuring quality. IS 4926 suggests the testing frequency of different test on aggregates in annex B

The basic properties of aggregates such as crushing value, impact value, abrasion value, soundness, potential alkali aggregate reactivity etc will not change much if the aggregate source is same.

Table -5 Sieve analysis – Coarse Aggregate 20mm

Sieves	Retained on each Sieve		Cumulative % Retained	Passing Through		Remarks
	Wt (gms)	%		Wt (gms)	%	
40mm				2000	100	
20mm	705	35.2	35.2	1295	64.8	MAS-30mm
10mm	1230	61.50	96.70	65	3.2	
4.75mm						
2.36mm						

#### Control on Aggregate Gradation

Aggregate grading has an impact on workability strength and some other properties. Since RMC producers are constrained to depend upon more than one source of aggregates there is likelihood of variation in particle size distribution. Sieve analysis is carried out on a weekly basis and records the data of cumulative percentage passing for all in aggregates used for main concrete mixes. The readings may be compared with those of all in aggregates grading limits stipulates by IS 383. These may help in tracking large variations and suitable corrections can be made in aggregate fractions.

Table- 8 Sieve Analysis Coarse Aggregate 10 mm

Sieves	Retained on each Sieve		Cumulative % Retained	Passing Through		Remarks
	Wt (gms)	%		Wt (gms)	%	
40mm						
20mm	0	0		1000	100	
10mm	19	1.9	1.9	981	98.1	
4.75mm	721	74.0	74.0	260	26.0	
2.36mm	240	98.0	98.0	20	2.0	

Table-9- Grading Limits for all in aggregates

IS Sieve	40mm	20mm
80mm	100	
40mm	95-100	100
20 mm	45-75	95-100
4.75mm	25-45	30-50
600 microns	8-30	10-35
150microns	0-6	0-6



### Dry loose Bulk Density.

The DLBD's of FA and CA often vary because the aggregates come from different quarries and whose crushing equipment vary from crusher to crusher, the shape factor vary from cubical, elongated to flaky. The DLBD varies depending on the particle size distribution, their shape and the amount of voids.

DLBD test is as follows

If the FA and CA are damp, the same is to made surface/heated dry samples.  
Containers of known volumes should be used.

A 15cm cube mould has a volume of 3.375litres is suitable for BLBD tests.

Fill the 15cm cube mould loosely (as the workers do for batching aggregates) with each size of Dry aggregates. The container must be level full. No aggregate particle should protrude above the containers top edge.

Record the weight  $W$  of each aggregate sample

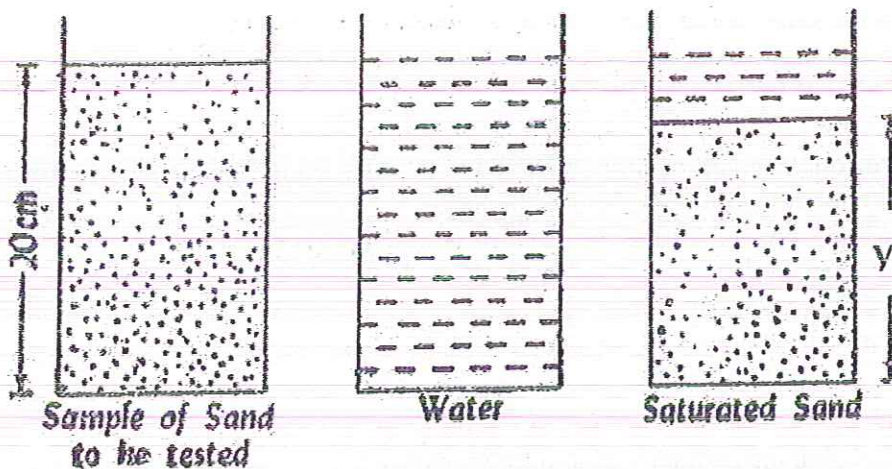
The DLBD is weight (Kg)/V (litres).  $W = \frac{W_2 - W_1}{V}$

### Bulking of fine Aggregates

The extent of bulking can be estimated by a simple field test. A sample of moist fine aggregate is filled into a measuring cylinder in the normal manner. Note down the level, say  $h_1$ . Pour water into the measuring cylinder and completely inundate the sand and shake it. Since the volume of the saturated sand is the same as that of the dry sand, the inundated completely offsets the bulking effect. Note the level of the sand say  $h_2$ .

Then Bulkage is  $h_1 - h_2 / h_2 \times 100$ .

Fig- 4



from time to time. Often, attempts are made to do mix designs without knowing the correct grade of Cement (OPC/PPC/PSC). This leads to either unsafe or over safe mix designs. An economical and technically viable concrete mix design can be achieved, only if the correct strength is known. IS 10262-1982 fig-2 gives the relation between free water cement ratio and concrete strengths, or grades classified in six types – A to F. The figure clearly shows that as W/C reduces the 28 days concrete strength (N/sqmm) increases for the same grades of OPC. The fig also shows that as the grades or cement strength increases, h increases, 28days strength (N/sqmm) increases for constant W/C.

A single day test certificate from the cement company of the cement tested on single day is not sufficient to identify the cement grade, because the concrete to be produced at site is specified as the characteristics strength 'Fck' based on the standard Deviation 's' of 30 consecutive concrete cube results. Cement companies should provide the details of 28 days Compressive Strength of their daily Average sample of the previous months as maintained in their Laboratory's register. Then the standard deviation 's' can be calculated for each month, to find out the actual characteristics compressive strength (fc) of the cement

Average Strength for the month of Cement	Standard Deviation for the month	Characteristic Compressive Strength Cement	Cement Grade
Fm	s	$F_c = F_m - 1.65s$	
580kg/sqcm	10	563	F
580kg/sqcm	20	547	E
580kg/sqcm	35	522	D

### Cement Properties

It is not practical to find the cement properties at site as it needs a full fledged laboratory. The Test Certificate and standard deviation for the month from the manufacturer specifies important cement properties.



From the table of Standard Deviation, the following data are obtained:

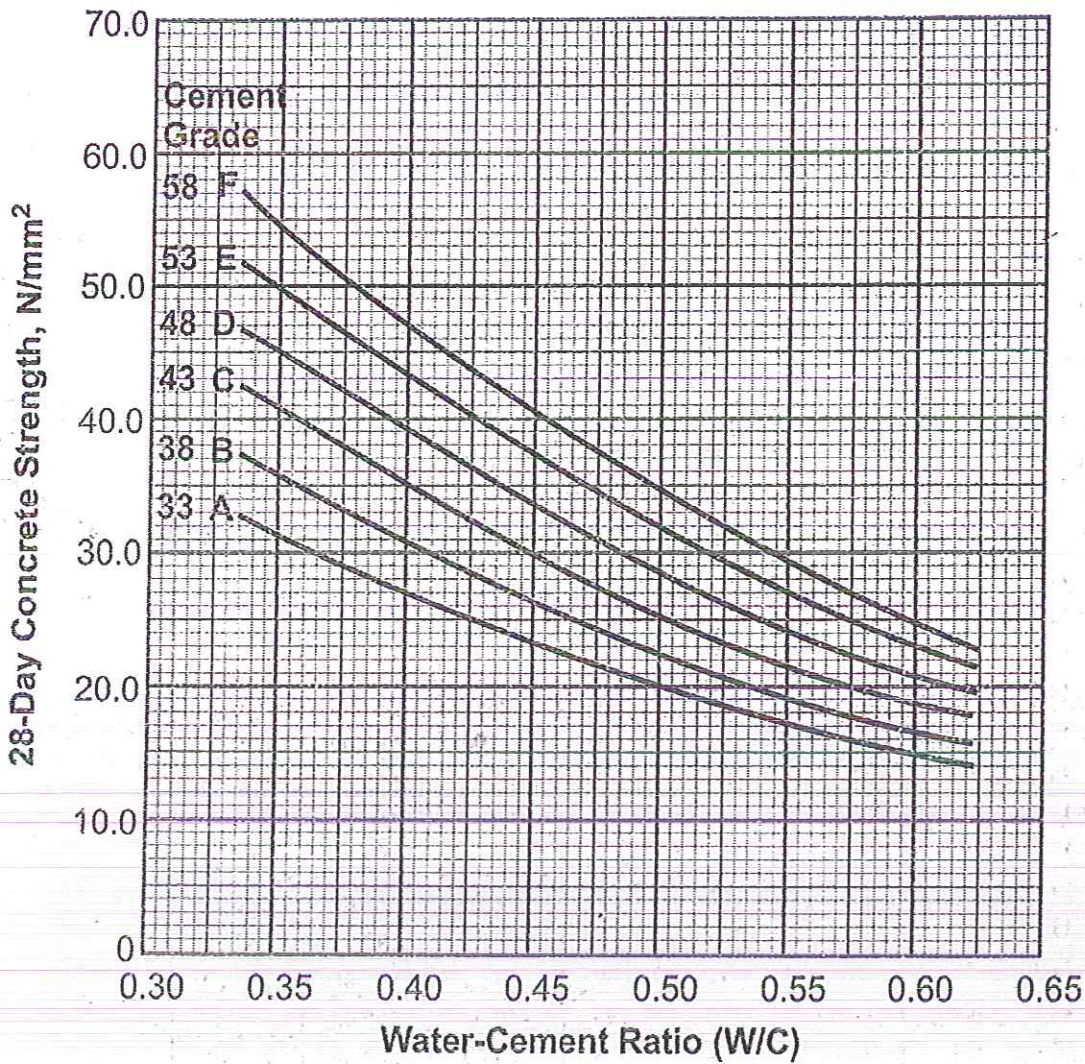
Average Strength (for the month)  $F_m$  - 674kg/sqcm

Standard Deviation (for the month)  $s$  - 11kg/sqcm

Then, Characteristic strength of Cement,  $F_r = F_m - 1.65 s$  - 655kg/sqcm

As per IS 10262-1982 - cement is categorized into grades A to F for different ranges of characteristic strength of cement.

Fig- 5



28- day strength of Cement tested according to IS 4031-1968

A- 325 - 375Kg/sqcm

D - 475 - 525 Kg/sqcm

B- 375 - 425 Kg/sqcm

E - 525- 575 Kg/sqcm

C- 425 - 475 Kg/sqcm

F - 575 - 625 Kg/sqcm



### Benefits of using Admixture

Benefit	Cement Content Kg/ cum	Admixture dosage (%)	W/ C Ratio	Slump (mm)	Strength	
					7days N/ sqmm	28 days N/sqmm
Control	300	nil	0.62	50	25	37
Increase in workability	300	0.14	0.62	100	26	38
Increase in strength	300	0.14	0.56	50	34	46
Saving in cement	270	0.14	0.62	50	25.5	37.5

### Precautions

- Establish workability, compressive strength and slump loss of concrete with and without admixtures
- Establish compatibility of chemical admixtures with cement
- Check by taking trial mixes when every fresh batch of admixture or cement is received at site or if brand or type of cement or admixture is changed
- Check solid content of liquid admixtures
- If mineral admixtures are also proposed to be used in a concrete mix, it is necessary to take trials to establish their compatibility with cement and chemical admixtures



**Table 12: Minimum Cement Contents and Maximum W/C Ratio for different exposure with Normal Weight Aggregates of 20mm Nominal Maximum Size**

Exposure	Plain Concrete (PCC)		Reinforced Concrete (RCC)		Minimum Grade of Concrete	
	Minimum Cement Kg/m <sup>3</sup>	Maximum Free W/C Ratio	Minimum Cement Kg/m <sup>3</sup>	Maximum Free W/C Ratio	PCC	RCC
Mild	220	0.60	300	0.55	-	M-20
Moderate	250	0.60	300	0.50	M-15	M-25
Severe	260	0.50	350	0.45	M-20	M-30
Very Severe	300	0.45	400	0.45	M-20	M-35
Extreme	300	0.40	400	0.40	M-25	M-40

Note: Minimum Cement Content prescribed in the Table is irrespective of grades of cement.

**Table 13: Adjustment to Minimum Cement Contents For Aggregates other than 20mm Nominal Maximum Size**

Nominal Maximum Aggregate Size (mm)	Adjustments to Minimum Cement Content in Table 2.10. (Kg/m <sup>3</sup> )
10	+40
15*	+20
20	0
30*	-15
40	-30

\* - Not in IS 456, but included on account of this sizes being available all over India

### 5) TARGET MEAN STRENGTH

Even if the characteristic strength  $F_{ck}$  is specified, while taking trial mixes and taking cubes, target for higher strength should be done, as laboratory conditions and site conditions are entirely different. This targeted higher strength is termed as Target Mean Strength ( $F_m$ ). The Target Mean Strength depends on degree of Quality control at site.

**Table 15: Degree of Quality Control Expected Under Different Site Conditions (IS: 10262- 1982)**

<p><b>Very good:</b> Fresh cement from single source and regular tests, weigh batching of all materials, aggregates supplied in single sizes, control of aggregate grading and moisture content, control of water added, frequent supervision, regular workability and strength tests, and field laboratory facilities.</p>
<p><b>Good:</b> Carefully stored cement and periodic tests, weigh batching of all materials, controlled water, graded aggregate supplied, occasional grading and moisture tests, periodic check of workability and strength, intermittent, supervision, and experienced workers.</p>
<p><b>Fair:</b> Proper storage of cement, volume batching of all aggregates allowing for bulking of sand, weigh batching of cement, water content controlled by inspection of mix, and occasional supervision and tests.</p>

**Table 16: Recommended Values of Standard Deviation (IS: 10262 – 1982)**

Standard Deviation (s) for different degree of control $N/mm^2$			
Grade of Concrete ( $f_{ck}$ )	Very Good	Good	Fair
M10	2.0	2.3	3.3
M15	2.5	3.5	4.5
M20	3.6	4.6	5.6
M25	4.3	5.3	6.3
M30	5.0	6.0	7.0
M35	5.3	6.3	7.3
M40	5.6	6.6	7.6
M45	6.0	7.0	8.0
M50	6.4	7.4	8.4
M55	6.7	7.7	8.7
M60	6.8	7.8	8.8



### 6a) WATER CONTENT

The water content for the required workability and maximum size of aggregates (for aggregates in saturated surface dry condition) is selected from table 5 of IS-10262.

Select the water content, for the required workability and maximum size of aggregates (for aggregates in saturated surface dry condition) from table of IS-10262

The water content estimated for mix designing a mix are influenced by the

- a) Maximum size of the aggregates
- b) Moisture content in the aggregate
- c) Workability
- d) Type of aggregate

Table 18. - Maximum Water Content per Cubic Metre of Concrete for Nominal Maximum Size Aggregate

Slump mm				
MAS	10mm	20mm	30mm	40mm
0 - 25mm	202	180	170	160
25 -50mm	208	186	175	165
50 -75mm	214	192	180	170
75 - 100mm	221	197	186	175
100-125mm	227	203	191	180
125-150mm	234	209	197	186
150-175mm	241	216	203	191

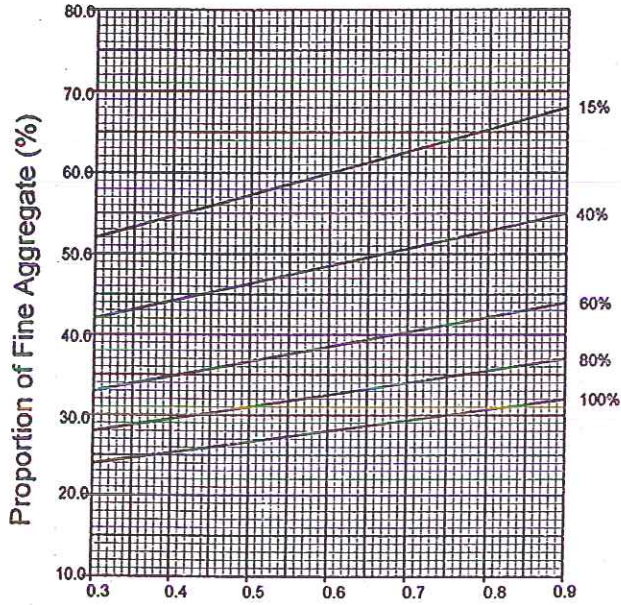
Note-1- The water estimate can be reduced by approximately 10kg for subangular aggregates, 20 kg for gravel with some crushed particles and 25kg for rounded Aggregates.

- Note- 2 a) water reducing admixtures decrease water by 5-10%  
b) Superplasticizing admixtures decrease water by 20%

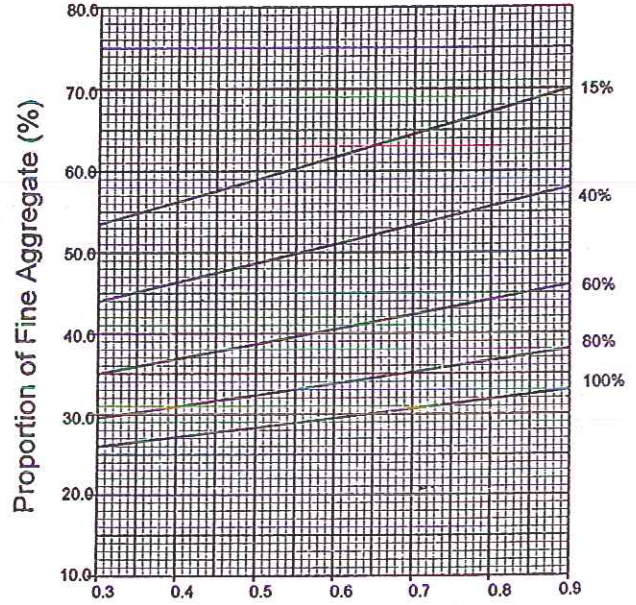


Recommended proportions of fine aggregate for percentage passing 600 micron sieve (MAS 10mm)

a Slump 0mm - 10mm

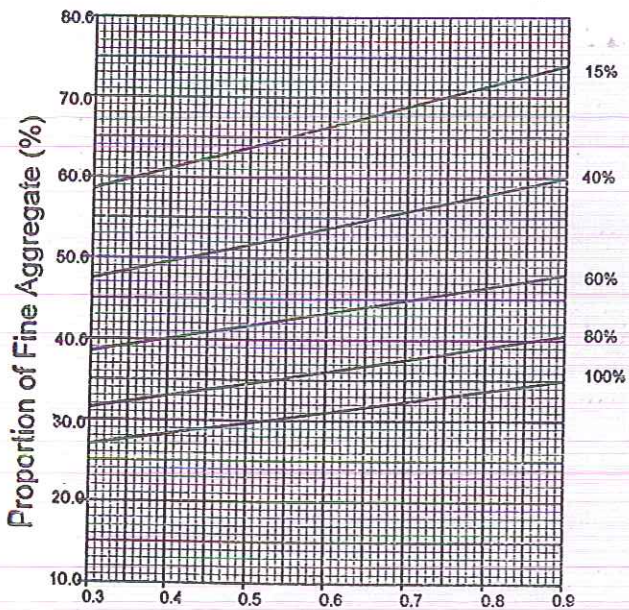


b Slump 10mm - 30mm

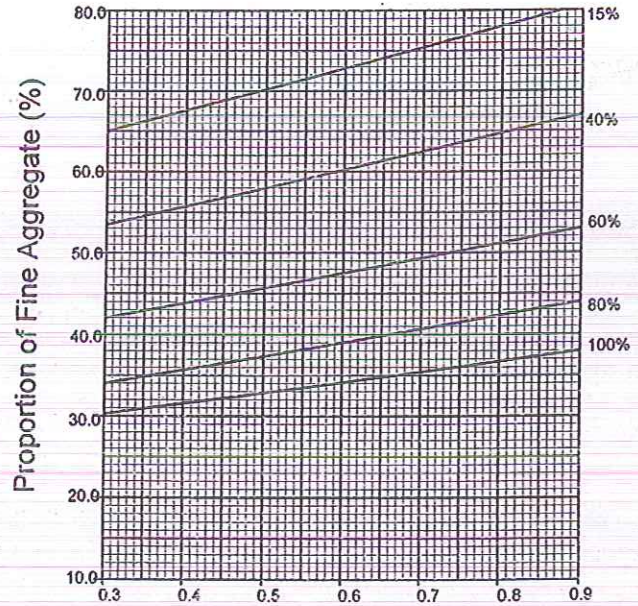


Free Water / Cement Ratio

c Slump 30mm - 60mm



d Slump 60mm - 180mm

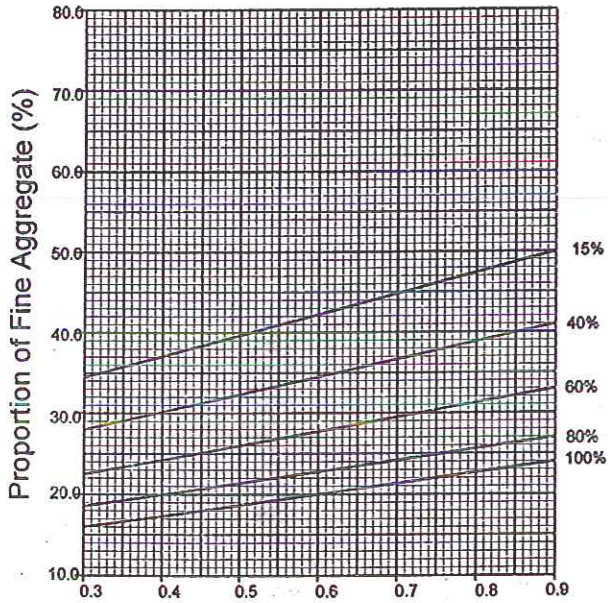


Free Water / Cement Ratio

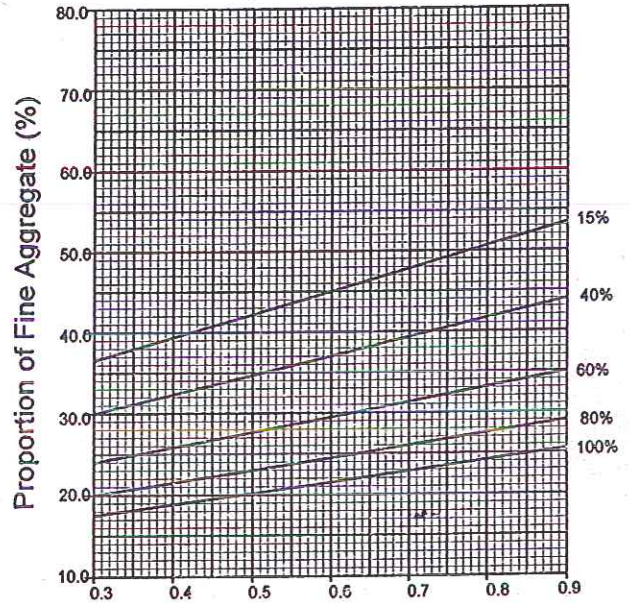


Recommended proportions of fine aggregate for percentage passing 600 micron sieve (MAS 30mm)

a Slump 0mm - 10mm

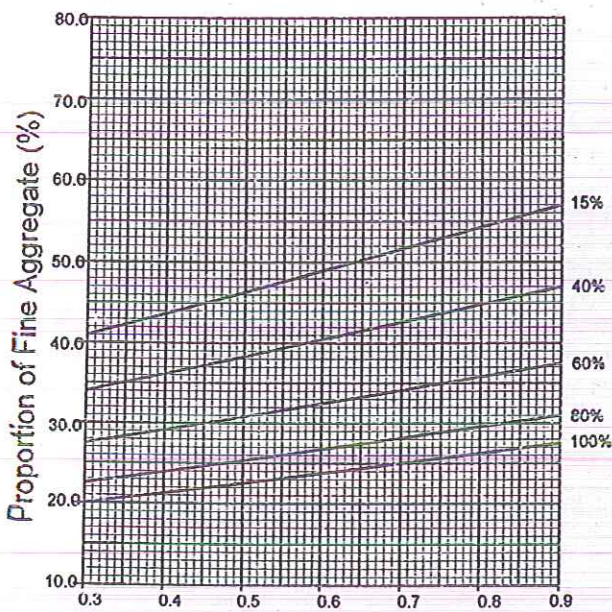


b Slump 10mm - 30mm

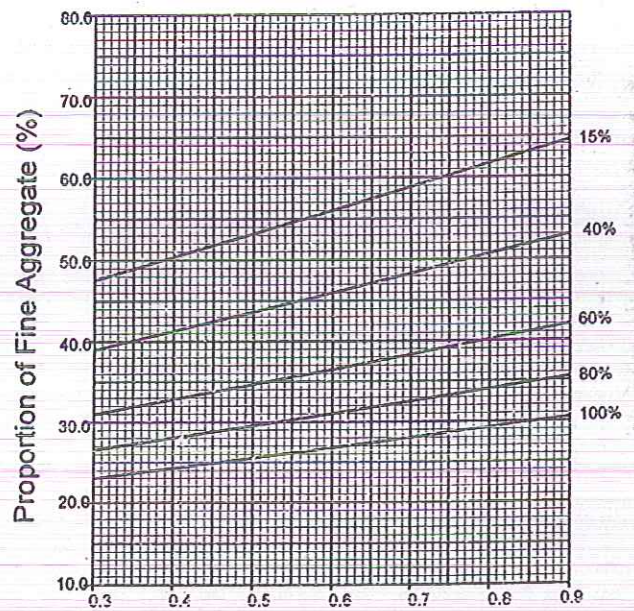


Free Water / Cement Ratio

c Slump 30mm - 60mm



d Slump 60mm - 180mm



Free Water / Cement Ratio



**Proportion of Fine Aggregates and Coarse aggregate as IS 10262- 2009 clause no 4.4.1**

“For more workable concrete mixes which is sometimes required when placement is by pump or when the concrete is required to be worked around congested reinforcing steel, it may be desirable to reduce the estimated coarse aggregates content determined using Table-3 upto 10%. However caution shall be exercised to assure that the resulting slump, w/c ratio and strength properties of concrete are consistent with the recommendation of IS 456 and meet project specification requirement as applicable.”

**8) CORRECTIONS IN AGGREGATE PROPORTION**

In FA, a certain % of CA is possible and vice versa. To get correct proportion, some corrections are to be made for this discrepancy.

**A) Correction for Over Size Particles present in Fine Aggregate**

$$\text{Corrected Proportion of FA} = \frac{100 \times \% \text{ of FA (from step 7)}}{\% \text{ passing 4.75mm sieve}}$$

Since, FA + CA I + CA II = 100 %, deduct the corrected quantity from CA I and add it to FA.

**B) Correction for Fine Aggregate Particles Present in Coarse Aggregates**

Correction for FA particles present in CA I =

$$\frac{\% \text{ passing 4.75 mm sieve (for CA I)} \times \% \text{ of CA I (from Step 8a)}}{100}$$

This correction is to be decreased from FA and added to CA I.

**Unit Volume of Aggregates**

Considering total Volume of Aggregate as 1 liter, the volume of FA, volume of CA I and volume of CA II can be obtained.



### VOLUMETRIC BATCHING

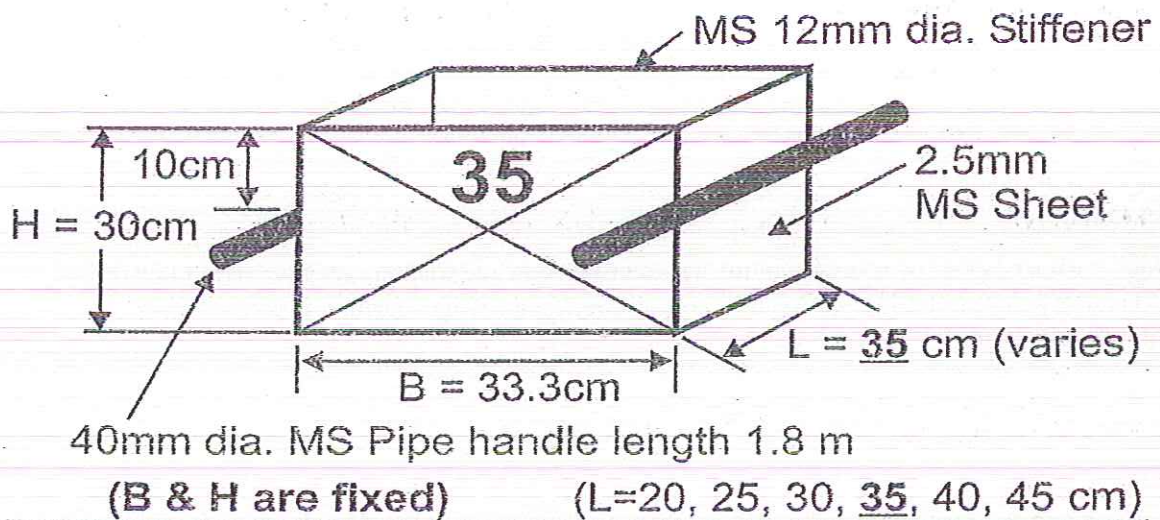
At site, if we have a set of 12 boxes as given in the table below it is possible to make any proportions with an accuracy of  $\pm 2$  Lts.

Recommended Sizes of various boxes (Farmas) for Volumetric Batching

Table -19

Reference	Width (cm)	Height (cm)	Depth (cm)	Volume(Its)	Qty.(Nos.)
A	33.3	30	20	20	1
B	33.3	30	25	25	2
C	33.3	30	30	30	2
D	33.3	30	35	35	2
E	33.3	30	40	40	2
F	33.3	30	45	45	2
G	33.3	30	50	50	1

$$V = B \times H \times L = 33.3 \times 30 \times \underline{35} \text{ cm} = \underline{35} \text{ litres}$$



### 13) TESTS CONDUCTED

Slump and compressive strength of concrete are two critical parameters to judge concrete quality. Carrying out slump test and preparation of compression test specimens are to be carried out by trained operator to ensure that the correct procedure is followed as per IS 1199 and IS 516. Any deviation from the procedure adversely affects final results.

Test cubes made from fresh concrete are very sensitive to method of handling and storage conditions during the first few hours. The test specimens are stored in moist air of at least 90% humidity and at a temperature of 27 degree Centigrade for 24 hrs from time of addition of water to dry ingredients. The specimen shall be marked and removed from moulds and submerged in fresh and clean water, the temperature of which shall be maintained at 27 degree Centigrade.

### 14) CONCLUSION

The systematic working of concrete mix design improves the quality and performance of concrete structure. It also helps in economic usage of cement as well as gives an overall economy

This booklet is mainly prepared to help Engineers to work out correctly the concrete mix design. Serious effort has been made to simplify the mix design as far as possible. Other methods of concrete mix design are also available. However it is felt that the Engineers must acquire the skills of working with one method before going in for other methods.

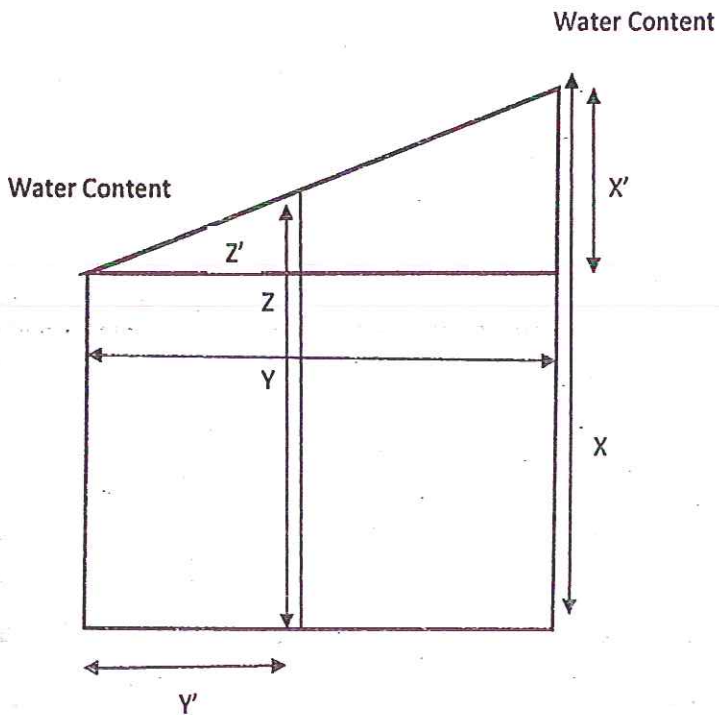
### REFERENCE

1. Concrete Mix Design Hand Book A P Remedious
2. IS 456- 2000, IS: 10262 -1982/2009 & SP 23 : Recommended Guidelines for Concrete Mix Design.
3. Concrete Mix design – Publication of The Concrete Association of India, 1983
4. Concrete Mix Design- C M Dordi Ambuja Technical Series



**WORK SHEET FOR CONCRETE MIX DESIGN**

- 1 a) Characteristic Compressive Strength (Fck) \_\_\_\_\_
- b) Fine Aggregates (Refer attached sieve analysis report) Table-3
- Type \_\_\_\_\_
- %Passing 4.75 mm sieve \_\_\_\_\_
- Passing 600 micron sieve (as available) \_\_\_\_\_
- Passing 600 micron sieve (pure sand) \_\_\_\_\_
- 100 X Passing 600 micron (as available) \_\_\_\_\_
- % Passing 4.75 mm sieve \_\_\_\_\_
- Zone \_\_\_\_\_
- Specific Gravity \_\_\_\_\_
- Dry loose Bulk density (DLBD) \_\_\_\_\_
- Bulkage (for natural moist sand) \_\_\_\_\_
- c) Coarse Aggregate ( sieve analysis report Table 5 & 8)
- Type \_\_\_\_\_
- % passing 20 mm sieve \_\_\_\_\_
- Maximum Aggregate Size MAS I \_\_\_\_\_
- %Passing 4.75 mm sieve (CA I) \_\_\_\_\_
- Specific Gravity \_\_\_\_\_
- Dry Loose Bulk Density (DLBD) - CA I \_\_\_\_\_
- Dry Loose Bulk Density (DLBD) - CA II \_\_\_\_\_
- d) Cement (Type and Grade) \_\_\_\_\_
- (Table -10)
- Average Strength (for the month) \_\_\_\_\_
- Standard deviation (for the month) \_\_\_\_\_
- Characteristic or minimum strength \_\_\_\_\_
- [ $F_c = (F_m - 1.65s)$ ] \_\_\_\_\_
- Cement Grade (see fig. 5) \_\_\_\_\_
- e) Durability Requirement
- Exposure -Table 11 \_\_\_\_\_
- Maximum WAC - Table 12 \_\_\_\_\_
- Minimum cement content -Table 11 &12 \_\_\_\_\_
- f) Workability \_\_\_\_\_
- (Table -14)
- Slump \_\_\_\_\_



Average Slump      Required Average Slump      Average Slump

$$\frac{X'}{Y} = \frac{Z'}{Y'}$$

$$Z' = \frac{X' \times Y'}{Y}$$

$$Z = (X - X') + Z'$$

Max. Aggregate Size \_\_\_\_\_

Slump (mm)- \_\_\_\_\_

Water, Kg/cum of concrete \_\_\_\_\_

V Cement Content

Water Cement Ratio \_\_\_\_\_

Water Content \_\_\_\_\_

Cement Content \_\_\_\_\_



VI Aggregate Proportion (DOE Method)

( Refer Table- Fig-7,8,9,10)

Max. Aggregate Size \_\_\_\_\_  
 Slump (mm)- \_\_\_\_\_  
 Free W/C Ratio \_\_\_\_\_  
 %Passing 600 micron Fine Aggregate (FA) \_\_\_\_\_  
 Proportion of Fine Aggregate \_\_\_\_\_

I Proportion of Coarse Aggregate

Proportion of Coarse Aggregate (CA I) \_\_\_\_\_  
 Proportion of Coarse Aggregate (CA II) \_\_\_\_\_

DETERMINATION OF COARSE AGGREGATE				
MAS	10MM	20MM	30MM	40MM
20MM	33%	67%		
30MM	50%		50%	
40MM	20%	20%		60%

VIII Mix Calculations.

a. Volume of Concrete (a) =  $1\text{m}^3$

b. Volume of Cement (b) =  $\frac{\text{Mass of Cement}}{\text{Specific Gravity of Cement}} \times \frac{1}{1000}$

=

c. Volume of Water (c) =  $\frac{\text{Mass of Water}}{\text{Specific Gravity of Water}} \times \frac{1}{1000}$

=

d) Volume of Fly ash (d) =  $\frac{\text{Mass of Fly ash}}{\text{Specific Gravity of Water}} \times \frac{1}{1000}$

=

e) Volume of chemical admixture  
( superplasticizer)(@2.0 % by  
mass of cementitious material)(e) =  $\frac{\text{Mass of chemical admixture}}{\text{Specific gravity of admixture}} \times \frac{1}{1000}$

=

f) Volume of all in aggregate  $f=[a-(b+c+d+e)]$

=

g) Mass of Coarse Aggregate CA I =  $f \times \text{Volume of CA I} \times \text{Sp. Gravity of CA I} \times 1000$

=

h) Mass of Coarse Aggregate CA II =  $f \times \text{Volume of CA II} \times \text{Sp. Gravity of CA II} \times 1000$

=

i) Mass of Fine Aggregate FA =  $f \times \text{Volume of FA} \times \text{Sp. Gravity of FA} \times 1000$

=



Table 3 Sieve Analysis of fine aggregates

Sieves	Retained on each Sieve		Cumulative % Retained	Passing Through		Remarks
	Wt (gms)	%		Wt (gms)	%	
10mm				1000	100	
4.75mm						
2.36mm						
1.18mm						
600micron						Zone -
300micron						
150micron						
Passing 150microns						

Specific Gravity of Aggregates

Specific gravity of aggregates can be determined at site by following method: FA CA-1 CA-2

Take an empty beaker and weigh it:  $W_1$

Fill it by about one third with aggregate and weigh it:  $W_2$

Add water up to the brim of beaker and weigh it:  $W_3$

Remove all the contents and fill the beaker only with water and weigh it:  $W_4$

$$\text{Specific Gravity} = \frac{W_2 - W_1}{(W_4 - W_1) - (W_3 - W_2)}$$

FA CA-1 CA-2

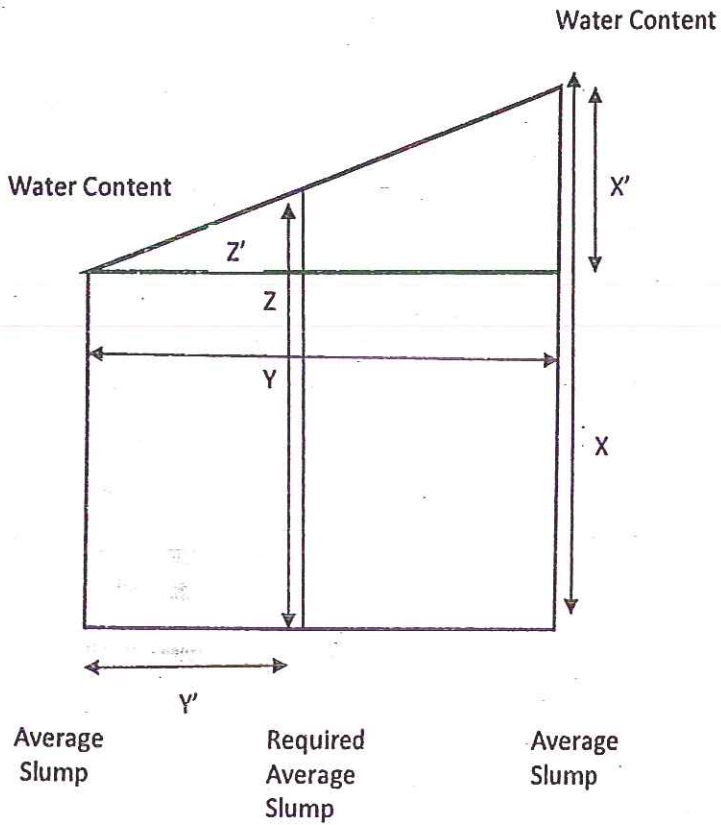
The DLBD is weight (Kg)/V (litres).  $W = \frac{W_2 - W_1}{V}$

The Bulkgage of Fine Aggregate -  $h_1 - h_2 / h_2 \times 100$ .

WORK SHEET FOR CONCRETE MIX DESIGN

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- ( Table -14 )
- Slump \_\_\_\_\_





$$\frac{X'}{Y} = \frac{Z'}{Y'}$$

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Water, Kg/cum of concrete \_\_\_\_\_

V Cement Content

Water Cement Ratio \_\_\_\_\_

Water Content \_\_\_\_\_

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=

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=

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=

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Remove all the contents and fill the beaker only with water and weigh it:  $W_4$

$$\text{Specific Gravity} = \frac{W_2 - W_1}{(W_4 - W_1) - (W_3 - W_2)}$$

FA CA-1 CA-2

The DLBD is weight (Kg)/V (litres).  $W = \frac{W_2 - W_1}{V}$

The Bulkage of Fine Aggregate -  $h_1 - h_2 / h_2 \times 100$ .



Table -5 Sieve analysis – Coarse Aggregate 20mm

Sieves	Retained on each Sieve		Cumulative % Retained	Passing Through		Remarks
	Wt (gms)	%		Wt (gms)	%	
40mm				2000	100	
20mm						MAS-
10mm						
4.75mm						
2.36mm						

Table- 8 Sieve Analysis Coarse Aggregate 10 mm

Sieves	Retained on each Sieve		Cumulative % Retained	Passing Through		Remarks
	Wt (gms)	%		Wt (gms)	%	
40mm						
20mm				1000	100	
10mm						
4.75mm						
2.36mm						

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Krishnadevarayanagar, Hunasamaranahalli, Via: Yelahanka, Bangalore - 562 157.

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Ph. : 080-2846 7082 / 2846 7248, 2847 7024/25/26, Fax : 080-2846 7081,  
E-mail : sirmvitbgl@gmail.com, Web : www.sirmvit.edu

**DEPARTMENT OF CIVIL ENGINEERING**



To,

**Er.SHELLY S FERNANDEZ,**  
**Managing Director,**  
**M/s QCRETE Readymix (India) Pvt Ltd.**

Dear Sir,

Thanks for your cooperation in successful conduction of **Two-Day's Workshop on CONCRETE MIX DESIGN - THEORY AND PRACTICE** on **24<sup>th</sup> & 25<sup>th</sup> August 2018** organized by the Dept. of Civil Engineering. We take this opportunity to express our gratitude to your kind self for all your support and delivering the lectures.

On behalf of the Management, Principal and Staff of Department of Civil Engineering, Sir MVIT, we would like to thank you once again for this kind gesture and look forward to more such acquaintances in future.

Thanking you,

*T. R. Lakshmi*  
CONVENOR

*[Signature]* 25/8/18  
Professor & Head **HOD**  
Department of Civil Engineering  
Sir M. Visvesvaraya Institute of Technology  
Bangalore-562 157



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Ph. : 080-2846 7082 / 2846 7248, 2847 7024/25/26, Fax : 080-2846 7081,  
E-mail : sirmvitbgl@gmail.com, Web : www.sirmvit.edu

**DEPARTMENT OF CIVIL ENGINEERING**



To

**Er. SIDDESH R. KAMAT MHAMAI**  
Head Quality control and Production,  
M/s QCRETE Readymix (India) Pvt Ltd.

Dear Sir,

Thanks for your cooperation in successful conduction of **Two-Day's Workshop on CONCRETE MIX DESIGN - THEORY AND PRACTICE** on 24<sup>th</sup> & 25<sup>th</sup> August 2018 organized by the Dept. of Civil Engineering. We take this opportunity to express our gratitude to your kind self for all your support and delivering the lectures.

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Thanking you,

*T. K. K. K.*  
CONVENOR

*[Signature]* 25/8/18  
Professor & Head HOD  
Department of Civil Engineering  
Sir M. Visvesvaraya Institute of Technology  
Bangalore-562 157



SRI KRISHNADEVARAYA EDUCATIONAL TRUST'S  
SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY  
Krishnadevarayanagar, Bengaluru – 562157

Two days workshop on

“Concrete Mix Design – Theory & Practice”

24<sup>th</sup> and 25<sup>th</sup> August, 2018

FEEDBACK FORM

Name of the Participant: Venkatesh B.R

Affiliated Institute/ Industry: SOMA

Rating for different aspects of workshop (On a scale of 5)

1. Presentation / Delivery of the Resource Persons	5
2. Usefulness of Practical Session	5
3. Quality of food / Refreshments	5
4. Hospitality by Hosting Staff	5
5. Usefulness	5
6. Overall	5

Major takeaways from the program ?

Mix design procedure

Brief details of your experience and suggestions

useful session

[Signature]  
Signature with date

1 - Needs Improvement

2 - Satisfactory

3 - Good

4 - Very Good

5 - Excellent





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Krishnadevarayanagar, Bengaluru – 562157



Two days workshop on  
“Concrete Mix Design – Theory & Practitce”

24<sup>th</sup> and 25<sup>th</sup> August, 2018

FEEDBACK FORM

Name of the Participant: Pavan

Affiliated Institute/ Industry: Rastakeeta Builders, GIET

Rating for different aspects of workshop (On a scale of 5)

1. Presentation / Delivery of the Resource Persons	5
2. Usefulness of Practical Session	5
3. Quality of food / Refreshments	5
4. Hospitality by Hosting Staff	5
5. Usefulness	5
6. Overall	5

Major takeaways from the program ?

\_\_\_\_\_

Brief details of your experience and suggestions

Excellent

Pavan Kumar R  
Signature with date

1 - Needs Improvement      2 – Satisfactory      3 – Good      4 – Very Good      5 - Excellent



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Two days workshop on  
“Concrete Mix Design – Theory & Practice”

24<sup>th</sup> and 25<sup>th</sup> August, 2018

FEEDBACK FORM

Name of the Participant: Harsha Kumar M.

Affiliated Institute/ Industry: BCE,

Rating for different aspects of workshop (On a scale of 5)

1. Presentation / Delivery of the Resource Persons	5
2. Usefulness of Practical Session	4
3. Quality of food / Refreshments	4
4. Hospitality by Hosting Staff	5
5. Usefulness	5
6. Overall	5

Major takeaways from the program ?

Mix design material was good

Brief details of your experience and suggestions

Useful Workshop.

Hal  
Signature with date

1 - Needs Improvement    2 – Satisfactory    3 – Good    4 – Very Good    5 - Excellent





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24<sup>th</sup> and 25<sup>th</sup> August, 2018

FEEDBACK FORM

Name of the Participant: SANJAY RAJ. A

Affiliated Institute/ Industry: REVA University

Rating for different aspects of workshop (On a scale of 5)

1. Presentation / Delivery of the Resource Persons	05
2. Usefulness of Practical Session	05
3. Quality of food / Refreshments	05
4. Hospitality by Hosting Staff	05
5. Usefulness	05
6. Overall	05

Major takeaways from the program ?

concrete mix design process -

Brief details of your experience and suggestions

Signature with date

[Signature]  
25/8/18

1 - Needs Improvement

2 - Satisfactory

3 - Good

4 - Very Good

5 - Excellent



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24<sup>th</sup> and 25<sup>th</sup> August, 2018

FEEDBACK FORM

Name of the Participant: Dr. Mohan Kumar

Affiliated Institute/ Industry: REVA university

Rating for different aspects of workshop (On a scale of 5)

1. Presentation / Delivery of the Resource Persons	5
2. Usefulness of Practical Session	4
3. Quality of food / Refreshments	5
4. Hospitality by Hosting Staff	4
5. Usefulness	5
6. Overall	4

Major takeaways from the program ?

practical session is very much useful

Brief details of your experience and suggestions

well organised

S. Kumar  
Signature with date

1 - Needs Improvement

2 - Satisfactory

3 - Good

4 - Very Good

5 - Excellent





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FEEDBACK FORM

Name of the Participant: Dy N.T. MANJUNATH

Affiliated Institute/ Industry: UBDICE, Davangere.

Rating for different aspects of workshop (On a scale of 5)

1. Presentation / Delivery of the Resource Persons	5
2. Usefulness of Practical Session	5
3. Quality of food / Refreshments	5
4. Hospitality by Hosting Staff	5
5. Usefulness	5
6. Overall	5

Major takeaways from the program ?

Concrete mix design manual, RMC Plant visit

Brief details of your experience and suggestions

Informative and useful sessions

N.T.  
Signature with date

1 - Needs Improvement      2 - Satisfactory      3 - Good      4 - Very Good      5 - Excellent



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FEEDBACK FORM

Name of the Participant: SURESH - B

Affiliated Institute/ Industry: Asst prof, Reva university

Rating for different aspects of workshop (On a scale of 5)

1. Presentation / Delivery of the Resource Persons	5
2. Usefulness of Practical Session	5
3. Quality of food / Refreshments	4
4. Hospitality by Hosting Staff	5
5. Usefulness	5
6. Overall	4

Major takeaways from the program ?

no comments

Brief details of your experience and suggestions

it was well organised

  
Signature with date

1 - Needs Improvement

2 - Satisfactory

3 - Good

4 - Very Good

5 - Excellent





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24<sup>th</sup> and 25<sup>th</sup> August, 2018

FEEDBACK FORM

Name of the Participant: Manjesh . N .

Affiliated Institute/ Industry: Brindavan college of Engg

Rating for different aspects of workshop (On a scale of 5)

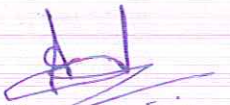
1. Presentation / Delivery of the Resource Persons	5
2. Usefulness of Practical Session	5
3. Quality of food / Refreshments	5
4. Hospitality by Hosting Staff	5
5. Usefulness	5
6. Overall	5

Major takeaways from the program ?

No.

Brief details of your experience and suggestions

Everything is good.

  
Signature with date

1 - Needs Improvement

2 - Satisfactory

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5 - Excellent



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FEEDBACK FORM

Name of the Participant: Mohammed Imran

Affiliated Institute/ Industry: Brindavan College of Engg

Rating for different aspects of workshop (On a scale of 5)


1. Presentation / Delivery of the Resource Persons	5
2. Usefulness of Practical Session	5
3. Quality of food / Refreshments	5
4. Hospitality by Hosting Staff	5
5. Usefulness	5
6. Overall	5

Major takeaways from the program ?

\_\_\_\_\_

Brief details of your experience and suggestions

Good.

  
Signature with date

1 - Needs Improvement

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FEEDBACK FORM

Name of the Participant: Shashikiran K.

Affiliated Institute/ Industry: NCC, GET

Rating for different aspects of workshop (On a scale of 5)

1. Presentation / Delivery of the Resource Persons	5
2. Usefulness of Practical Session	4
3. Quality of food / Refreshments	5
4. Hospitality by Hosting Staff	5
5. Usefulness	5
6. Overall	5

Major takeaways from the program ?

---

Brief details of your experience and suggestions

---

Shashi

Signature with date

1 - Needs Improvement    2 - Satisfactory    3 - Good    4 - Very Good    5 - Excellent



SRI KRISHNADEVARAYA EDUCATIONAL TRUST'S

**SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY**

Krishnadevarayanagar, Hunasamarahalli, Yelahanka, International Airport Road,  
Bengaluru - 562 157



**Two - Days Workshop on  
“ Concrete Mix Design - Theory & Practice ”**

## CERTIFICATE OF PARTICIPATION

This is to certify that Dr./Mr./Mrs.....of

.....has

participated in Two - days workshop on “Concrete Mix Design - Theory and Practice”, held on 24th & 25th August 2018, organised by Department of Civil Engineering, Sir M VIT, Bengaluru.

*Ravi Kumar*

Dr. H. Ravi Kumar  
Convener

*Prof. H. P. Mahendra Babu*

Prof. H. P. Mahendra Babu  
HOD

*Dr. V.R. Marjunath*

Dr. V.R. Marjunath  
Principal





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Ph. : 080-2846 7082 / 2846 7248, 2847 7024/25/26, Fax : 080-2846 7081,  
E-mail : sirmvitbgl@gmail.com, Web : www.sirmvit.edu

DEPARTMENT OF CIVIL ENGINEERING



To,

Er.SHELLY S FERNANDEZ,  
Managing Director,  
M/s QCRETE Readymix (India) Pvt Ltd.

Dear Sir,

Thanks for your cooperation in successful conduction of **Two-Day's Workshop on CONCRETE MIX DESIGN - THEORY AND PRACTICE** on **24<sup>th</sup> & 25<sup>th</sup> August 2018** organized by the Dept. of Civil Engineering. We take this opportunity to express our gratitude to your kind self for all your support and delivering the lectures.

On behalf of the Management, Principal and Staff of Department of Civil Engineering, Sir MVIT, we would like to thank you once again for this kind gesture and look forward to more such acquaintances in future.

Thanking you,

*T. R. Lakshmi*  
CONVENOR

*[Signature]* 25/8/18  
HOD  
Department of Civil Engineering  
Sir M. Visvesvaraya Institute of Technology  
Bangalore-562 157.



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E-mail : sirmvitbgl@gmail.com, Web : www.sirmvit.edu

DEPARTMENT OF CIVIL ENGINEERING

To

Er. SIDDESH R. KAMAT MHAMAI  
Head Quality control and Production,  
M/s QCRETE Readymix (India) Pvt Ltd.

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Thanking you,

*U. Hanumanth*  
CONVENOR

*[Signature]*  
25/8/18  
HOD  
Department of Civil Engineering  
Sir M. Visvesvaraya Institute of Technology  
Bangalore-562 157.



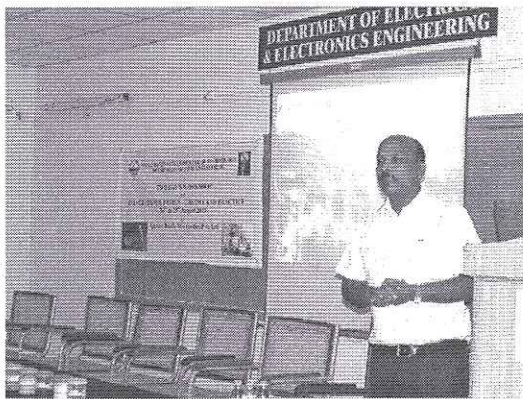
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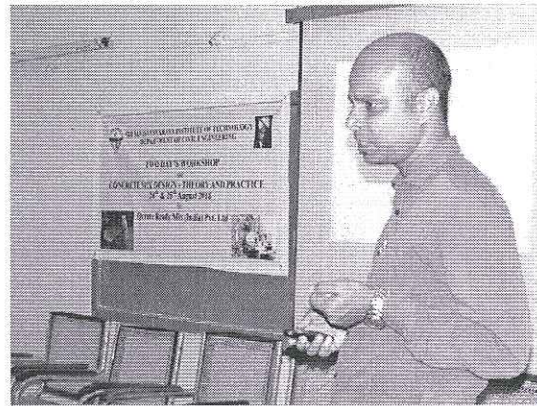
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LIGHTING THE LAMP



SPEAKER 1



SPEAKER 2



ADMIXTURE

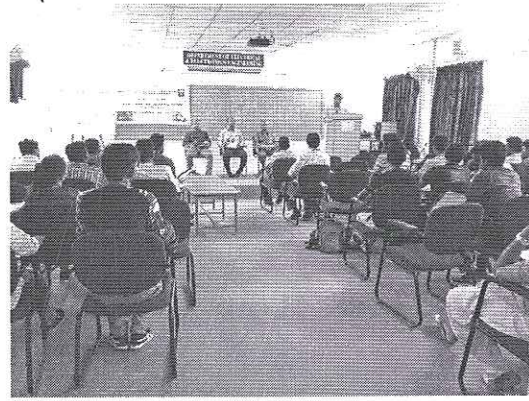


INTERACTIVE SESSION

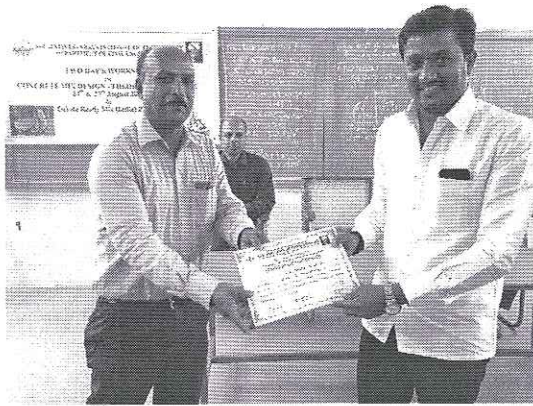




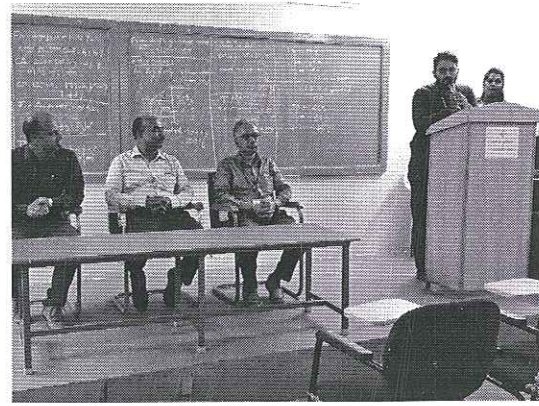
LAB WORK



VALEDICTORY FUNCTION



CERTIFICATE DISTRIBUTION



PARTICIPANT FEEDBACK



FIELD VISIT



WORKSHOP BANNER





GROUP PHOTO