

SRI VENKATESWARA COLLEGE OF ENGINEERING DEPARTMENT OF CIVIL ENGINEERING



# Report of the Workshop on "MACHINE LEARNING FOR CONSTRUCTION AUTOMATION"

26.06.2023 (Monday)

Coordinator Mr. A. Vijay Vignesh (AP/Civil Engg.) **Convenor Dr. R. Kumutha** HoD/Civil Engg.



## SRI VENKATESWARA COLLEGE OF ENGINEERING

(An Autonomous Institution affiliated to Anna University, Chennai) Pennalur, Sriperumbudur Tk – 602 117



#### DEPARTMENT OF CIVIL ENGINEERING

#### Report of the Workshop on "Machine Learning for Construction Automation"

Date : 26.06.2023 (Monday) Time : 02.00 P.M – 03.30 P.M Mode : Online Venue: Google meet

Meeting Link: meet.google.com/knt-bbje-kup

Speaker Mr. AM Govind Kumar Managing Director SeaportAI, Chennai

#### **Convenor & Organizing Secretary**

Dr. R. Kumutha, Professor & Head/Civil Engineering

#### Coordinator

Mr. A. Vijay Vignesh, Assistant Professor/Civil Engineering

#### Target Audience: Students and Faculty members

Number of Participants benefited: 30UG Students: 24Faculty: 4

Others : 2

Total No of Internal Participants - 26

Students-24, Faculty-0, Others-2

Total No of External Participants - 4

Students -0, Faculty -4, Others -0



Vijay Vignesh CVE <avijayvignesh@svce.ac.in>

#### Invitation - Workshop on "Machine Learning for Construction Automation" - reg

9 messages

Vijay Vignesh CVE <avijayvignesh@svce.ac.in> To: EBTS Organization <ebts1.2013@gmail.com> Cc: HOD Civil SVCE <hodce@svce.ac.in> Tue, Jun 20, 2023 at 3:57 PM

Dear Sir,

On behalf of the Department of Civil Engineering, Sri Venkateswara College of Engineering, Sriperumbudur, I am happy to invite you for the Workshop on "Machine Learning for Construction Automation" which is scheduled on 26th June 2023 (Monday).

Venue: Google Meet Timings: 2 - 3 P.M.

PI find the attached brochure for your reference.

--- Thanks and Regards ---Vijay Vignesh Assistant Professor - Civil Department, Sri Venkateswara College of Engineering, Sriperumbudur

Workshop on Machine Learning for Construction Automation.pdf 387K

EBTS Organization <ebts1.2013@gmail.com> To: Vijay Vignesh CVE <avijayvignesh@svce.ac.in> Cc: HOD Civil SVCE <hodce@svce.ac.in>

Hello Vijay Sir,

Thanks for the invite.

Copying my faculty Govind Sir.

Please send the session link by 26th morning.

Regards,

Arunjit Chowdhury CEO, EBTS 9820529962 www.ebts.co.in

[Quoted text hidden]

Workshop on Machine Learning for Construction Automation.pdf 387K

EBTS Organization <ebts1.2013@gmail.com> To: Vijay Vignesh CVE <avijayvignesh@svce.ac.in> Cc: HOD Civil SVCE <hodce@svce.ac.in>, Govind Kumar <govind.kumar@seaportai.com>

Tue, Jun 20, 2023 at 4:26 PM

8/10/23, 2:36 PM Sri Venkateswara College of Engineering Mail - Invitation - Workshop on "Machine Learning for Construction Automation" - reg

Copying Govind Kumar SIr.

Regards,

Arunjit Chowdhury CEO, EBTS 9820529962 www.ebts.co.in

[Quoted text hidden]

#### Workshop on Machine Learning for Construction Automation.pdf 387K

**EBTS Organization** <ebts1.2013@gmail.com> To: Vijay Vignesh CVE <avijayvignesh@svce.ac.in> Cc: HOD Civil SVCE <hodce@svce.ac.in>, Govind Kumar <govind.kumar@seaportai.com>

Tue, Jun 20, 2023 at 6:02 PM

Remuneration will be Rs 2000 to be paid after the session.

Please ask interested students to download PowerBI on the laptop or desktop. Link given below

Link for downloading desktop version of power bi

https://www.microsoft.com/en-us/download/details.aspx?id=58494

Also following attached files to be copied in a folder.

We will ask students to work along with us during the demo session.

Regards,

Arunjit [Quoted text hidden]

#### 3 attachments

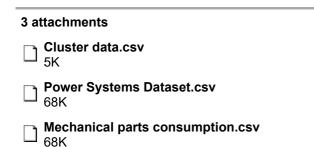
Cluster data.csv

Power Systems Dataset.csv 68K

Mechanical parts consumption.csv 68K

Vijay Vignesh CVE <avijayvignesh@svce.ac.in> To: HOD Civil SVCE <hodce@svce.ac.in>

[Quoted text hidden]



EBTS Organization <ebts1.2013@gmail.com> To: Vijay Vignesh CVE <avijayvignesh@svce.ac.in> Cc: HOD Civil SVCE <hodce@svce.ac.in> Mon, Jun 26, 2023 at 3:12 PM

Mon, Jun 26, 2023 at 3:26 PM

Hello Vijay Sir,

Thanks for the opportunity,

Here are the account details

Name of the speaker - Arunjit Chowdhury / Govind Kumar

Bank Name - ICICI Bank

Branch Name - Hiranandani Gardens, Powai, Mumbai - 400076

Account Number - 002001005768

IFSC Code - ICIC0000020

Amount - Rs 2,000

Regards,

Arunjit Chowdhury CEO, EBTS 9820529962 www.ebts.co.in

On Tue, Jun 20, 2023 at 3:57 PM Vijay Vignesh CVE <avijayvignesh@svce.ac.in> wrote: [Quoted text hidden]

HOD Civil SVCE <hodce@svce.ac.in> To: EBTS Organization <ebts1.2013@gmail.com> Cc: Vijay Vignesh CVE <avijayvignesh@svce.ac.in> Mon, Jun 26, 2023 at 3:29 PM

Dear sir

Thanks for delivering a lecture to our students and faculty members. We will process the payment and it will take a week's time. PI keep in touch with Mr.A.Vijay Vignesh to know about the status for payment. Thanks once again.

[Quoted text hidden]

Thanks and Regards Dr.R.Kumutha Professor and Head Department of Civil Engineering Sri Venkateswara College of Engineering Sriperumbudur - 602117 TN, India Ph: 9894125626 Web of Science Profile Scopus Author Profile Google Scholar Profile

EBTS Organization <ebts1.2013@gmail.com> To: HOD Civil SVCE <hodce@svce.ac.in> Cc: Vijay Vignesh CVE <avijayvignesh@svce.ac.in> Mon, Jun 26, 2023 at 3:51 PM

Thanks Mam for the opportunity.

Looking forward to further associations in the near future.

Regards,

8/10/23, 2:36 PM Sri Venkateswara College of Engineering Mail - Invitation - Workshop on "Machine Learning for Construction Automation" - reg

Arunjit Chowdhury CEO, EBTS 9820529962 www.ebts.co.in

[Quoted text hidden]

 EBTS Organization <ebts1.2013@gmail.com>
 Mon, Aug 7, 2023 at 2:08 PM

 To: Vijay Vignesh CVE <avijayvignesh@svce.ac.in>
 Cc: HOD Civil SVCE <hodce@svce.ac.in>, Govind Kumar <govind.kumar@seaportai.com>, EBTS Organization

 <ebts1.2013@gmail.com>

Hello Vijay Slr,

Bank details attached. There is no transaction of Rs 2000 credit.

The account is in the name of Arunjit Chowdhury and not Govind Kumar.

Regards,

Arunjit Chowdhury CEO, EBTS 9820529962 www.ebts.co.in

On Tue, Jun 20, 2023 at 3:57 PM Vijay Vignesh CVE <avijayvignesh@svce.ac.in> wrote: [Quoted text hidden]

OpTransactionHistory07-08-2023.xls
 61K

https://mail.google.com/mail/u/0/?ik=2f76570b2b&view=pt&search=all&permthid=thread-a:r1588438311241760381&simpl=msg-a:r56046627213... 4/4



Vijay Vignesh CVE <avijayvignesh@svce.ac.in>

#### Workshop on "Machine Learning for Construction Automation" - reg

1 message

#### Vijay Vignesh CVE <avijayvignesh@svce.ac.in>

Sun, Jun 25, 2023 at 9:42 PM

Bcc: muthaiyan.p@rajalakshmi.edu.in, umamaguesvari.m@rajalakshmi.edu.in, karthikeyan.rm.civil@snsct.org, skcivil55@gmail.com, Sudharsan N <nksudharsan@gmail.com>, dhinesh kanna <dhineshkanna2001@gmail.com>, VIKRANTH JOHNTHILAK <vikranthjohnthilak@gmail.com>, 13 PREM KUMAR S CE <2020ce0568@svce.ac.in>, "Venkatesh. S" <ananthvenkatesh406@gmail.com>, RAGHAVENDRA B CIVIL <2021ce0383@svce.ac.in>, LOKESHWARAN R CE <2022ce0771@svce.ac.in>, balaji kasiraman <balajikasiraman79@gmail.com>, ABINAYA S CIVIL <2021ce0350@svce.ac.in>, LOMINA R CE09 <2021ce0157@svce.ac.in>, GOPINATH K CE <2021ce0907@svce.ac.in>, NITHILA M CIVIL <2021ce0119@svce.ac.in>, 02 AURUDRA ADISESHAIAH KRISHNA CE <2020ce0384@svce.ac.in>, MOHAN AYYAPPAN <mandark.mohan@gmail.com>, CHIRANJEEVI B CVE <chiranjeevi@svce.ac.in>, "Balamurugan G." <gbalamuruganjec@gmail.com>, Kavitha <kavi13suga@gmail.com>

Dear Participant, Thank you for your Registration.

The meeting link for the workshop on "Machine Learning for Construction Automation" is given below for your reference.

#### Scheduled on 26.06.2023 (Monday) Venue: Google Meet Timings: 2 P.M. - 3 P.M.

#### Follow these Instructions:

1) Please download **PowerBI** on the laptop or desktop. Link for downloading desktop version of **PowerBI** Link: https://www.microsoft.com/en-us/download/details.aspx?id=58494

2) Also following attached files to be copied in a folder.

The speaker will ask the participants to work along with us during the demo session.

--- Thanks and Regards ---Vijay Vignesh Assistant Professor - Civil Department, Sri Venkateswara College of Engineering, Sriperumbudur

#### 3 attachments

☐ Mechanical parts consumption.csv 68K

Power Systems Dataset.csv 68K

Cluster data.csv

#### BROCHURE

Indian Concrete Institute Chennai Centre



(Autonomous - Affiliated to Anna University) Pennalur, Sriperumbudur Tk. - 602117, Tamil Nadu

# **Department of Civil Engineering**

invites you for a

Workshop

on

# "Machine Learning for Construction Automation"

Venue: Google Meet Registration Link: <u>https://forms.gle/MwcMePubZX5g1ABEA</u>



## Mr. AM Govind Kumar Managing Director SeaportAI, Chennai

MONDAY, 26.06.2023

INSTITUTION'S INNOVATION COUNCIL

TIMINGS 02.00 P.M - 03.00 P.M

Faculty Coordinator Mr.A.Vijay Vignesh, AP/CVE Convenor & Organizing Secretary Dr. R. Kumutha Head of the Department Civil Engineering

# Workshop on "Machine Learning for Construction Automation" - Civil Department - SVCE

Sri Venkateswara College of Engineering, Sriperumbudur Department of Civil Engineering

Date: 26.06.2023 (Monday) Venue: Google Meet

Workshop on "Machine Learning for Construction Automation"

Kindly fill this registration form and meeting link will be send through email.

avijayvignesh@svce.ac.in Switch account

 $\odot$ 

\* Indicates required question

Email \*

Your email

Name of the Participant (Full Name with Initial) \*

Your answer

Name of the College/Institution \*

Your answer

	Designation *	
	O Student	
	Faculty	
	O Industry Professionals	
	O Other:	
	Mobile Number (Whateann No)	
	Mobile Number (Whatsapp No)	
	Your answer	
	Year of Study (for students)	
	Choose -	
	Department (for faculty and industry professionals)	
	Your answer	
	Submit	Clear form
Ne	ever submit passwords through Google Forms.	
	This form was created inside of Sri Venkateswara College of Engineering. <u>Report Abuse</u>	
	Google Forms	

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# **AM Govind Kumar**

2 Decades of Experience Business Transformation, Technology (AI ML) & Fraud Risk

# **Professional Experience**

#### SeaportAi | Director

2017 – Present

- **Product Development and Business Development** with a focus on Fraud Risk, Customer Experience & Intelligent Automation
- Sectors covered: Banking, Insurance, Telecom, Manufacturing

#### **ZebPay** (Crypto/Blockchain) | **Vice President** 2021 – 2022

- Managed Operations & Partners
- Drove **OKR** (Objectives & Key Results) implementation

#### Hewlett Packard | Multiple Leadership Roles - Sales,

Operations, Quality, Strategy & AI ML

2005 - 2017

- Managed large multi cultural and multi national teams
- Led '**Design thinking based Product Development**' program of PC products for emerging markets (China, India, Brazil, South East Asia)
- Set up Centers of Excellence (CoE) for Service Analytics & Fraud Detection

#### Airtel | Manager

2001 - 2005

Part of the startup project team. Set up process architecture and managed operations

Vyapin Software Systems (E-Commerce Venture) | Business Development Manager

2000 - 2001

# Achievements

- Top 20 Al Startup (2019), CIO Review Magazine
- HP Global CEO Award (2014 & 2016)

# Education

- Anna University Guindy Chennai
   *B. Tech* Completed in 1997
- Bhatathidasan Institute of Management Full Time MBA (Marketing & Systems)
   Completed in 1999

# **My Contact**

- govind.kumar@seaportAi.com
- +91 99451 56317
- Chennai

# Tech Skills

- AI ML: Python covering Machine Learning, Deep Learning and NLP
- Data Visualization: Power BI
- Auto ML: Google Vertex
- Six Sigma Green & Black Belt

# **Books Written By Me**

- Comprehensive Machine Learning
- AI For Executives
- Customer Escalation Is A Gift
- From Fury To Faith: Changing Preferences of Customers
- Get Started With Al: No Programming Required

# Certifications

- Project Management Professional (PMP)
- Lean Six Sigma Master Black Belt
- Innovation, Creativity & Change, Penn State University USA
- Master Level Practitioner of Neuro Linguistic Programming (NLP), NFNLP USA

#### **BRIEF REPORT OF THE WORKSHOP**

Mr. A. Vijay Vignesh, Assistant Professor, Department of Civil Engineering, Sri Venkateswara College of Engineering has delivered the welcome address and introduced the speaker Mr. A. M. Govind Kumar, to all the participants.

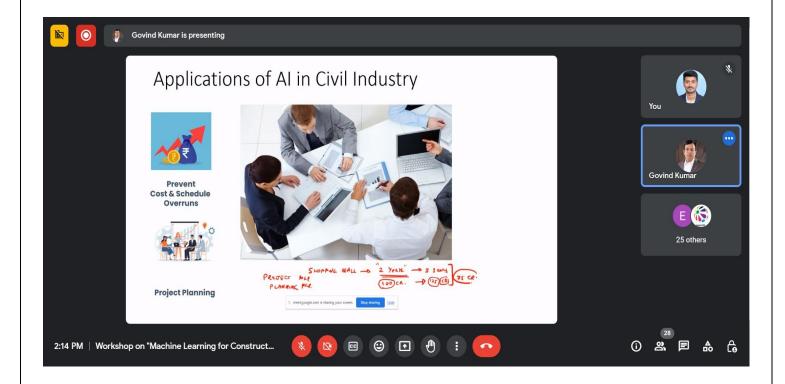
The speaker welcomed the gathering and gave a brief introduction about the importance of machine learning and opportunities for civil engineers in IoT domain in the current scenario. He later discussed about the different types of Artificial Intelligence and its applications in civil engineering industry with suitable examples. He later demonstrated the Microsoft Power BI software for explaining the applications of Machine learning concept.

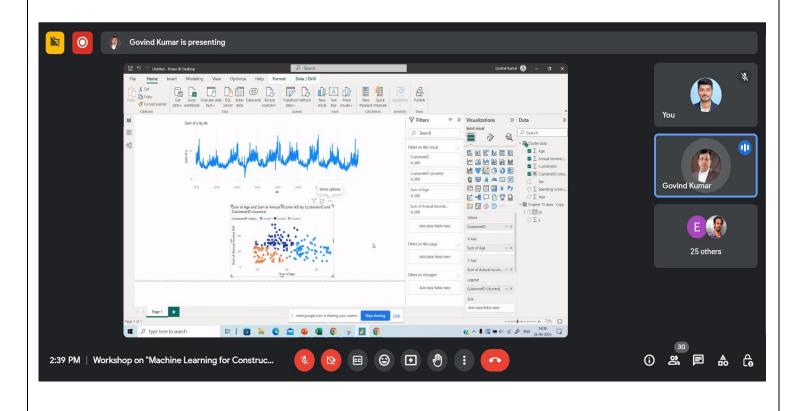
He explained the user interface in the software and various tools available to perform analytical and mathematical operations for construction automation. He demonstrated how to extract the data and how to get cluster data from dataset with suitable example. He also explained how to do forecasting the project using the dataset for a construction project.

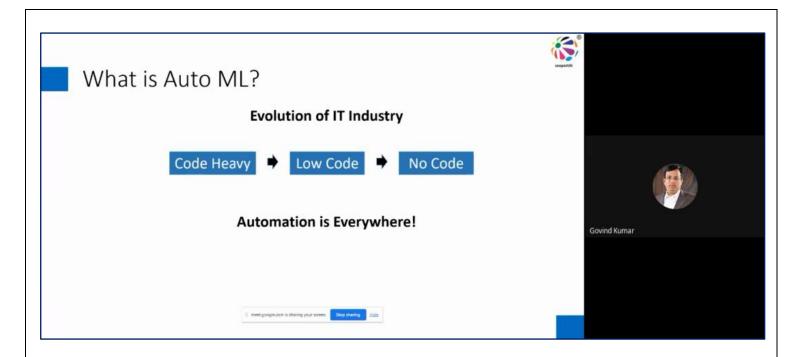
The speaker concluded the session and discussed on the queries raised by the participants.

The session was interactive, and the questions raised by the participants were answered by the speaker. The session ended with a vote of thanks delivered by Mr. A. Vijay Vignesh, Assistant Professor, Department of Civil Engineering, Sri Venkateswara College of Engineering. The participants also had appreciated the workshop.

#### **SNAPSHOTS OF THE WORKSHOP**







#### **Program Objectives**

The objectives of the workshop are:

- To understand about the importance of Machine Learning for construction automation.
- To provide demonstration on Microsoft Power BI software.

The following Program Outcomes (POs) and Program Specific Outcomes (PSOs) are addressed for the Workshop on "**Machine Learning for Construction Automation**",

Particulars	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
Machine Learning for Construction Automation	~		~		V						~	~	*	*

Registration Link: <u>https://forms.gle/UtaDYhXzB8heNqzX9</u>

Feedback Link: https://forms.gle/KB6VpapvEgRSWWGB9

#### LIST OF PARTICIPANTS

S.No	Name of the Participant	Name of the Institution	Category
1	UMA MAGUESVARI M	RAJALAKSHMI ENGINEERING COLLEGE	Faculty
2	M KALEESWARI	RAJALAKSHMI ENGINEERING COLLEGE	Faculty
3	MUTHAIYAN P	RAJALAKSHMI ENGINEERING COLLEGE	Faculty
4	V. P. THARINI	RAJALAKSHMI ENGINEERING COLLEGE	Faculty
5	MOHAN AYYAPPAN	SRI VENKATESWARA COLLEGE OF ENGINEERING	PG Student
6	RUBINI M	SRI VENKATESWARA COLLEGE OF ENGINEERING	Others
7	CHIRANJEEVI B	SRI VENKATESWARA COLLEGE OF ENGINEERING	Others
8	AURUDRA ADISESHAIAH KRISHNA	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
9	AADESHWAR S	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
10	ABINAYA S	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
11	BALAJI K	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
12	HARINI A	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
13	HARISHKANNEN R	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
14	KALICHARAN A S	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
15	KAVIYA R	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
16	LOMINA R	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student

S.No	Name of the Participant	Name of the Institution	Category
17	NITHILA M	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
18	RAGHAVENDRA B	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
19	RASHIK AHMED R	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
20	VELAN S	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
21	PRAVEEN KUMAR D	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
22	PRAVEEN RAJ A	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
23	PREM KUMAR S	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
24	SANTHOSH KUMAR N M	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
25	CHANDRAVASAN P	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
26	DHANUSH KANNAN L	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
27	GIRI RAVENDAR M	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
28	SANTHOSH KUMAR N M	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
29	PUVIARASU S	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student
30	RAMANA R	SRI VENKATESWARA COLLEGE OF ENGINEERING	UG Student

#### SUMMARY OF FEEDBACK

Total Number of respondents: 30							
Feedback	Strongly Agree	Agree	Neutral	Disagree			
The session delivered the information I expected to receive.	22	8	0	0			
The subject matter was presented effectively.	23	7	0	0			
The pace and duration of the workshop was satisfactory.	24	6	0	0			
The resource person is knowledgeable.	25	5	0	0			
The resource person presented the information in a clear and logical manner	26	4	0	0			
Sufficient time was given for interaction	23	7	0	0			
The workshop was well organized	25	5	0	0			
As a result of this workshop, I gained new knowledge	26	4	0	0			

#### **Additional Comments:**

• Informative Session.

YouTube Link: <u>https://www.youtube.com/watch?v=LNYglvQr\_ME&t=4s</u>

# Feedback link - Workshop on "Machine Learning for Construction Automation" - Civil Department - SVCE

Feedback Form Sri Venkateswara College of Engineering, Sriperumbudur Department of Civil Engineering

Date: 26.06.2023 (Monday) Venue: Google Meet

#### Workshop on "Machine Learning for Construction Automation"

Kindly provide your valuable feedback.

Email ID * 2020ce0384@svce.ac.in
Prefix *
Mr.
Name of the Participant * Aurudra Adiseshaiah krishna
Name of the Department * Civil
Category *
Student
O Faculty
O Research Scholar
O Lab Technician

#### 8111091246

Please rate your satisfaction with the content of the workshop delivered by the speaker by indicating your level of agreement \* or disagreement with each of the following statements.

	Strongly agree	Agree	Neutral	Disagree
The session delivered the information I expected to receive.	۲	0	0	0
The subject matter was presented effectively.	$\bigcirc$	۲	0	$\bigcirc$
The pace and duration of the workshop was satisfactory.	$\bigcirc$	۲	0	0
The resource person is knowledgeable.	۲	$\bigcirc$	0	$\bigcirc$
The resource person presented the information in a clear and logical manner	۲	$\bigcirc$	0	0
Sufficient time was given for interaction	۲	$\bigcirc$	0	$\bigcirc$
The program was well organized	۲	$\bigcirc$	0	0
As a result of this workshop, I gained new knowledge	۲	0	0	0

Are you interested in attending such programs organized in future by the Department of Civil Engineering of SVCE \*

Yes	
O No	
Additional Comments/Feedback *	
•	

This form was created inside of Sri Venkateswara College of Engineering.



## **SUMMARY OF FEEDBACK**

<sup>is result of this workshop, I gained new</sup>

The workshop was well organized

sufficient time was given for interaction

the resource person presented the not the net the net

The resource person is knowledgeable.

<sub>e pace</sub> and duration of the workshop was <sub>isfact</sub>ory.

subject matter was presented effectively.

The session delivered the information I expected to receive.

0 0 0 ■ Strongly agree

■ Disagree ■ Neutral ■ Agree

Approved by

Dr.R. Kumutha (HoD/Civil Engg.) Convenor & Organizing secretary

pared by

Prepared 05 Ir. A. Vijay Vignesh (AP/Civil Engg.) Coordinator