

Government College of Technology, Coimbatore – 641013

(An Autonomous Institution affiliated to Anna University, Chennai) SELF-STUDY REPORT

CRITERION 3 Research, Innovations and Extension

Key Indicator 3.7: Collaboration

3.7.1 Number of functional MoUs /linkages with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the last five years

DECLARATION

This is to certify that the supporting documents uploaded in Institution website and the respective links are true to the best of my knowledge and belief. All documents and links are verified and authenticated.

Head of the Institution

(Seal and sign of the Principal)

Government College of Technology, Coimbatore-13

List of MoUs and Outcomes in the Year 2023

S.No	Name of the collaborating agency	Year of signing	Duration	Activities	Page no.
1	Best engineers pumps private limited,Coimbatore	2023	Lifelong	Student Industrial Project - 1Batch comprising of 4 Students	3
2	IRO Journals , Coimbatore	2023	1 Year	50 students published paper in IRO journal in association with the conference conducted by GCT on 27.04.2023	
3	M/s Pyramiid Design India Pvt Limited, Coimbatore	2023	5 Years	Industrial Expert in BOS Meeing Industrial Expert in BOS Meeing Industry Consultancy Committee member	21
4	M/s. Struct Well, Coimbatore.	2023	5 Years	Joint Consultancy work	43
5	Yaazh xenomics	2023	Lifelong	student internship	56
6	Best Engineers Pumps Pvt Ltd	2023	3 Years		61
7	M/s Armour Steel Buildings India Pvt Limited	2023	5 Years		65
8	M/s Hitech Concrete Solutions Chennai Pvt Ltd.	2023	5 Years		68



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COLUMNATION.

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126-A Ramalinga Colony.

M.T.P. Road, Coimbatore . 43

I No: 7333/B1/97F3

TRIPARTITE AGREEMENT BETWEEN

BEST ENGINEERS PUMPS (INDIA) PRIVATE LIMITED

A

JAGANATHAN LEELAKRISHNAN

MEMORANDUM OF UNDERSTANDING

Tris Memorandum of Understanding ("MoU") was made on 3rd March 2023 by and between

1. Department of Electrical and Electronics Engineering, GOVERNMENT COLLEGE OF TECHNOLOGY (GCT), ThadagamRoad, Coimbatore – 641013 represented by The Principal, GCT, Coimbatore (hereinafter referred to as the "The Party of First Part" which term shall mean and includes, legal representatives, executors, successors, assigns etc.,)

- 2. M/S. BEST ENGINEERS PUMPS(INDIA)PVT LIMITED, having its registered office at59-B, Thadagam Road, Velandipalayam, Coimbatore 641 025 represented by its Managing Director Dr. C. G. SRIPRIYA, (hereinafter referred to as the "The Party of Second Part" which term shall mean and includes, legal representatives, executors, successors, assigns etc.,)
- 3. JAGANATHAN LEELAKRISHNAN, (Director, Renuka Industries, Coimbatore) residing at No 49-A, Ambika Layout, New Siddhapudur, Coimbatore 641 044 (hereinafter referred to as the "The Party of Third Part" which term shall mean and includes, Legal Heirs, legal representatives, executors, successors, assigns etc.,)

PREAMBLE

This MOU is executed with the intention of working in collaboration for research and development, Innovation, building up of Patented Products, producing proto-types and related activities in the Field of Engineering. The Parties have common scientific and research interests and will cooperate in performing the activities stated below.

The broad terms of this MoU would be as under:

Areas of Collaboration

The Party of Third part being associated with the Engineering Business for 25 years is envisioned to share his knowledge and Lesson Learned in the field to work in association with the Students (Considered eligible and interested) of the Party of First Part for the development of New Ideas and Innovative Products, to Produce Proto-types and other working models of Engineering Products.

The Party of the First Part and the Party of the Second Part agree to share their place of Operations to establish the purpose of this MoU.

The Product so developed shall be Patented in the Joint Name of the

- 1. Project Lead /Studentsinvolved in the development of products/ideas (Representing the party of the First Part)
- 2. The Party of Second Part
- 3. The Party of Third Part

Each of the three parties, unless an agreement to the contrary is in force, be entitled to an equal undivided share in the Patent. The Patent such registered shall be utilized by the party of Second Part for Producing in Mass Quantity the products developed under this MoU and in return for the usage of the rights belonging to the project Lead / Students, the Party of Second Part shall award the Students of the Party of First Part with Grant / Scholarship / Sponsorship considered good and agreed between the Parties.

Funding the Projects

Party of the First Part shall permit to utilize the resources and the party of the Second Part agrees to fund the Projects undertaken by the Students of the Party of the First Part. The payment terms and schedule will be stated in a later, formal agreement for each Project Undertaken unless otherwise, each party will bear its own cost.

The Cost of registering the Patents will be borne by the Party of Second Part.

Confidentiality

All Three Parties to MoU will exercise the utmost care to preserve the confidentiality of all the relevant matters arising out of the joint efforts.

Renewal, Termination and Amendment

This MoU becomes effective on the date of signature. It may be amended by mutual agreement of the parties. It is renewed every three years without change on that date unless one party gives notice otherwise, six months in advance.

Indemnity

The Party of First Part and the Party of Second Part shall be mutually liable to set right any damage or loss suffered by either of the parties or the Party of Third Part in connection with the execution of any activities under this MOA.

GENERAL

If a dispute arises under this MOU, the Parties agree to make a good-faith effort to resolve anydifferences amicably.

In the event any provision of this MOU is determined to be invalid or unenforceable under any controlling law, the invalidity or unenforceability of that provision shall not in any way affect the validity or enforceability of the remaining provisions of this MOU.

This MOU shall not be assignable by either Party, in whole or in part, without the prior written consent of the other Party.

It is understood and agreed that neither Party to this MoU shall be liable for any negligent or wrongful acts, either of commission or omission, chargeable to the other unless such liability is imposed by law and thatthis MoU shall not be construed as seeking to either enlarge or diminish any obligation or duty owed by one Party against the other or third parties.

This instrument contains the entire agreement between the parties and no statements, promises or inducements made by either Party or agent of either Party that are not contained in this written MoU shall be valid or binding; and this MoU may not be enlarged, modified or altered except in writing, signed by the Parties.

Any dispute or difference arising between the parties hereto concerning the affairs of any operations carried on under this agreement or regardingthe construction of any clause hereof to the rights, duties and obligations of the parties hereto shall be mutually settled between the parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective duly authorized officers as of the date and year first above written.

FOR THE PARTY OF FIRST PART

FOR THE PARTY OF SECOND PART

ONMANI)

The Principal

Government College of Technology Coimbatore - 641013

C. a. higinya

(Dr. C. G. SRIPRIYA) **Managing Director**

M/S. BEST ENGINEERS PUMPS PVT

LTD. Coimbatore- 641925



FOR THE PARTY OF THIRD PART

JAGANATHAN LEELAKRISHNAN,

Director,

Renuka Industries Coimbatore - 641044

Witness 1

Witness 2

Signature:

Name:

Dr. V. GOPALAKRISHNAN

VICE PRINCIPAL &

HEAD OF THE DEPARTMENT,

ELECTRICAL AND

ELECTRONICS ENGG.,

GCT, COIMBATORE

Signature:

Name: Dr. V. PRASANNA MOORTHY

PROFESSOR,

ELECTRICAL AND

ELECTRONICS ENGG.,

GCT, COIMBATORE

Project Report: Automatic tank level control circuit using AC voltage and current monitoring system

Date: 30.08.2023

Abstract

This project report presents the design and implementation of an AC voltage and current monitoring system using the Renesas RL78/G12 microcontroller and the CC-RL Integrated Development Environment (IDE). The system monitors the input AC voltage and current, controls a relay for motor activation based on voltage criteria, and implements current cut-off to stop the motor.

Introduction

The objective of this project is to develop an intelligent system that monitors the voltage and current of a single-phase AC supply to stop the motor. The system employs the Renesas RL78/G12 microcontroller and the CC-RL IDE for programming.

System Overview

The system operates as follows:

- 1. Upon AC power supply, the microcontroller waits for a 5-second delay while simultaneously monitoring the AC voltage.
- 2. If the voltage remains within the range of 180V to 240V, the microcontroller activates a relay to power the motor.
- 3. The system continuously monitors the motor's current consumption.
- 4. If the current consumption exceeds a predefined cut-off value, the relay is turned off to stop the motor.

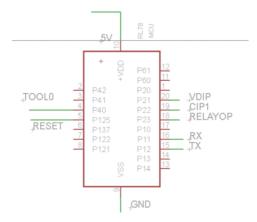
Software Tools

- CC-RL Integrated Development Environment (IDE)
- Custom C Code for Microcontroller Programming
- Eagle CAD 5.4.0

Hardware Design Explanation

The hardware design of the AC Voltage and Current Monitoring System was implemented using Eagle CAD software. The design includes the following components:

1. Microcontroller Interface: The Renesas RL78/G12 microcontroller is the heart of the system. It interfaces with various components, including the current transformer, and relay module.



Pinouts used:

P40 -Tool0 //connected to the programmer

P125-reset // connected to the programmer

P21-Voltage divider circuits input to the controller

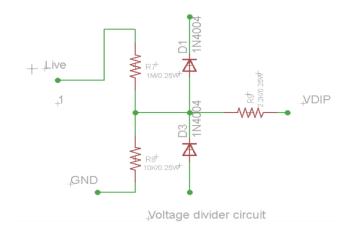
P22-Current transformer input to the controller

P23- Relay control pin

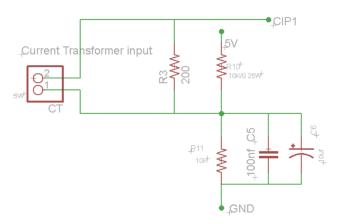
P11-RX pin of the microcontroller// used for serial communication

P12-TX pin of the microcontroller// used for serial communication

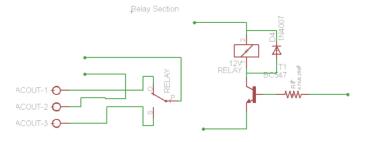
2. Voltage divider circuit: The output from the voltage divider circuit is connected to the microcontroller's analog-to-digital converter (ADC) channel. It provides real-time voltage readings from the AC supply.

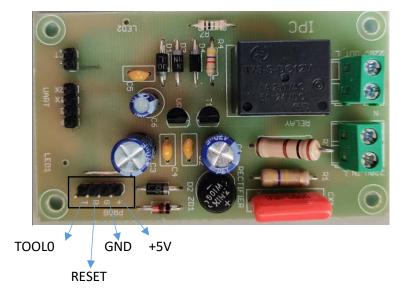


3. Current transformer: The current transformer input is also connected to an ADC channel of the microcontroller. It provides accurate current consumption data from the motor.



4. Relay Module: The relay module is controlled by the microcontroller's digital output pin. It activates or deactivates the motor based on voltage and current conditions.





Note: Output can be viewed using UART communication for which the pinouts RX(P11) and TX(P12) have been given.

System Operation

The system operates in the following steps:

- 1. The microcontroller initializes the necessary peripherals and configurations.
- 2. A 5-second timer is started to allow initial power stabilization.
- 3. During the timer delay, the microcontroller monitors the AC voltage using an ADC.
- 4. If the voltage is within the range of 180V to 240V, the relay is turned on.
- 5. The system then continuously monitors the motor's current consumption using another ADC.
- 6. If the current consumption exceeds the cut-off value, the relay is turned off.

Code Implementation

The program is loaded into the microcontroller using the programmer RENESAS e1 emulator via the tool0 and reset pins of the microcontroller.



E1 emulator

Experimental Results

The system was tested under various conditions to ensure its functionality. The voltage and current monitoring, relay control, and cut-off protection mechanisms were successfully validated.

Conclusion

This project demonstrates a microcontroller-based Automatic tank level control circuit using AC voltage and current monitoring system. The integration of the Renesas RL78/G12 microcontroller with the CC-RL IDE allows for precise monitoring and control of electrical parameters, ensuring efficient and safe motor operation.

References

- Renesas Electronics Corporation. (2023). [Reference manual-https://www.renesas.com/us/en/document/man/rl78g12-users-manual-hardware-0]
- Renesas Electronics Corporation. (2023). [R5F10268 Datasheet link-https://pdf1.alldatasheet.com/datasheet-pdf/view/947471/RENESAS/R5F10268A.html]





Inventive Research Organization

1A, 5th Gandhi Street, Nchru Nagar, Civil Aerodrome Post, Coimbatore - 641014, Tamil Nadu, India.

Phone: 422-4212582. Email: contact@iroglobal.com.

Website: www.iroglobal.com.

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (hereinafter referred to as MoU) is made and entered into by and between IRO Journals, 5th Gandhi Street, Nehru Nagar, Coimbatore – 641 014. Tamil Nadu, India, represented by MD, Dr. S. Smys hereinafter referred to as the PARTY A. IRO organizes and sponsors reputed international conferences and publishes papers in the IRO journals.

Government College of Technology, Thadagam Main Road, Coimbatore - 641 013 Tamil Nadu, India herein after referred to as PARTY B. Government College of Technology, established with the objective of developing a center for performance learning, is imparting technical education at graduate, post graduate and research level.

PURPOSE & SCOPE

The purpose of this MOU is to define the arrangements between the PARTY B and PARTY A, as a publisher of the following International Journals

- Journal of Electrical Engineering and Automation (ISSN: 2582-3051)
- Journal of Electronics and Informatics (ISSN: 2582-3825)
- Journal of Trends in Computer Science and Smart Technology (ISSN: 2582-4104)

PARTY B provides support to PARTY A by ensuring the quality of publication through peer-review and other related support. PARTY A and PARTY B affirm their mutual interest in developing academic and research-related activities and their desire to cooperate to achieve these goals better. Any associated academic activities should be performed only with proper consents between two parties. Hence Party A is requested to not to use Party B name in any of the Party A's activities conducted out of Party B campus during this MoU tenure.

Any Communication shall be addressed to the following by either party:

IRO Journals,

5th Gandhi Street, Nehru Nagar, Coimbatore. Tamil Nadu, India. 641014

E mail: journals@iroglobal.com

Tel no.: 0422 4212582

Government College of Technology,

Department of Electrical and Electronics Engineering, Thadagam Main Road, Coimbatore,

Tamil Nadu, India.

641 013

E mail:

Tel no.: 0422 2432221



Inventive Research Organization

1A, 5th Gandhi Street, Nchru Nagar, Civil Acrodrome Post, Coimbatore - 641014, Tamil Nadu, India.

Phone: 422-4212582. Email: contact@iroglobal.com.

Website: www.iroglobal.com.

EFFECTIVE DATE AND SIGNATURE

This MoU shall be effective upon the signature of Parties A and B authorized officials. It shall be in force from 06th February 2023 to 05th February 2024.

Parties A and B indicate agreement with this MoU by their signatures.

IN WITNESS WHEREOF the parties here to have signed this deed on this Date (06-02-2023)

CBE-14 For

Inventive Research Organization

For Government College of Technology

Government College of Technology 3.

REGISTRATION FORM

Details of corresponding author

Name (In CAPITALS)

Oualification Department Institution/Industry **Years of Experience Contact Number** Email id Title of the Paper Name(s) of Author(s): 1. 3. Address for Communication: **Details of Payment:** DD No. : Date Bank Amount: Signature of the Applicant Signature of the Head of the Department Seal Place: Date:

DATES TO REMEMBER

Submission of Full paper (IEEE format) to : 06thApril 2023 conference email nceis23eeegct@gmail.com

Selection Intimation to corresponding author : 15thApril 2023 Last date for receiving registration form & fee : 20thApril 2023

DD by post

REGISTRATION FEE DETAILS

Delegate Category	Fee (Rs.)
UG & PG Students	750
Faculty Members & Research Scholars	1000
Industry Delegates	1250

MODE OF PAYMENT

Registration fee should be paid as DD drawn from any Nationalized Bank drawn in favour of NCEIS, payable at Coimbatore.

ORGANIZING COMMITTEE

Patron : Dr.K.Manonmani, Principal

Convenor : Dr.V.Gopalakrishnan, Vice Principal,

Professor & HOD/EEE

Co-ordinators : Dr.S.Chitra

Assistant Professor (SLG)/EEE

Dr.P.Maruthupandi

Assistant Professor (SLG)/EEE

Technical Committee	Organising members
Dr.E.Latha Mercy	(PhD Research Scholars)
Dr.V.PrasannaMoorthy	Mr.P.Manikandan
Dr.N.Narmadhai	Mrs.R.Sobha
Dr.SujathaBalaraman	Mrs.A.Sumithara
Dr.R.Rajeswari	Mrs.S.Vijaya
Dr.K.Ranjithkumar	Mrs.K.Jeevitha
Dr.K.Yasoda	Mrs.M.Ponrekha
Dr.P.Maruthupandi	
Dr.S.Chitra	

ADDRESS FOR COMMUNICATION

Dr.S.Chitra / Dr.P.Maruthupandi, AP(SLG), Department of EEE,

Government College of Technology, Coimbatore-641013.

E-mail: nceis23eeegct@gmail.com Mobile: 9943694610, 9865824288

Prof.S.Sowkarthika

Student co-ordinators: M. Vivekanandhan - 8825963132 D.Sharmila - 7904263169, R. Harrini - 8903993955



One-Day



NATIONAL CONFERENCE

on

ELECTRICAL AND INSTRUMENTATION SYSTEMS

(NCEIS'23)

27th April 2023



Organized by

Department of Electrical and Electronics Engineering

GOVERNMENT COLLEGE OF TECHNOLOGY

COIMBATORE - 641 013

TAMILNADU, INDIA

TEL: (0422) - 2432221 Website: www.gct.ac.in

ABOUT THE INSTITUTION

Government College of Technology, Coimbatore formerly known as Arthur Hope College of Technology, was started in July 1945. The Institute is one of the premier Engineering Institutions of our Country having a very large contribution to the academic and technological developments. Ever since that prestigious moment, it has set the standard of recognition standing out as an outstanding Institution with technical expertise. This Institution offers 9 UG programmes and 11 PG programmes with recognized research supervisors to pursue M.S. (by Research) and Ph.D. Programmes in all the branches of study. All the departments have well qualified staff members and excellent infrastructural facilities. This Institute is supported by World bank funding under TEQIP in the Phase II to the tune of Rs.12.5 Crores along with two centers of excellence, each granted with Rs.5 Crores. The college has received BEST COLLEGE AWARD in the year 2010 from the Government of Tamil Nadu and "GREEN CAMPUS OF THE YEAR - 2013" award from The Chief Minister of Pondicherry for the measures taken on environmental activities. This institution is accredited by National Assessment and Accreditation council (NAAC) by UGC and most of the Programmes conducted by this Institution are accredited by National Board of Accreditation (NBA) by AICTE.

ABOUT THE DEPARTMENT (EEE)

The Department of Electrical and Electronics Engineeringis one of the oldest departments of the institution spanning 75 years of existence which offers undergraduate programs B.E-EEE and two post graduate programmes.

M. E. (Power Systems Engineering and Power Electronics and Drives) and research programmes. The Department of Electrical Engineering is committed to excel in Electrical and Electronics Engineering through education and research with well-qualified and experienced faculty and technical staff members. Top ranked students in the state who secure 190 and above cut-off marks out of 200 in higher secondary school examinations are admitted in the institution through Tamil Nadu Engineering Admission on- line counselling conducted every year by Directorate of Technical Education, Chennai, More than 60 scholars have completed Ph.D. and more than 30 are pursuing research. The department has established Centre of Excellence for Alternate Energy Research (CoE-AER) under Technical Education Quality Improvement Programme (TEQIP) phase - II with fund of Rs.5 Crores and TEQIP phase – III with fund of Rs.1.5 Crores. Motor testing set up for Rs.50 Lakhs has been established in the department towards consultancy services. All the three programmes conducted by the department, B.E. (EEE), M.E (Power Systems Engineering, Power Electronics and Drives) are accredited by National Board of Accreditation (NBA).

CALL FOR PAPERS

The main objective of the Conference is the sharing of knowledge from all the Engineering community. The authors are expected to submit original contribution of on-going and unpublished work/survey in IEEE - MS WORD format with maximum of six pages to the conference email id nceis23eeegct@gmail.com. Maximum of three authors per paper is allowed. Separate certificate will be issued to each author.



Selected papers will be published in the Conference Proceedings / Inventive Research Organization (IRO) Journals with Google scholar citation. All the papers will

form and paper template will be shared in acceptance mail.

No publication charges will be collected from the authors.

be peer reviewed and checked for plagiarism. Copy right

TOPICS TO BE COVERED

The topics to be covered in the conference are (but not limited to):

- Power System Operation and Control
- Power System Protection
- Power System Reliability and Planning
- Power Electronics and Drives
- Modern Trends in Electric Vehicles
- Power Converters and Applications
- Automation of Electrical Energy Systems
- Smart Grid Technology and Applications
- Power Quality Issues
- Restructured and Deregulated Power System
- High Voltage Engineering
- Computer Control of Power Systems
- Flexible AC Transmission Systems
- Renewable Energy Resources
- Internet of Things
- Industrial Automation and Process Control
- Machine Learning and Artificial Intelligence
- Electromagnetic Fields for Virus Protection
- Image Processing
- Signals and Systems

IRO journal published article:

S.No	Source	Title	publication link
1	GCT (EE001)	A HYBRID MPPT ALGORITHM FOR SOLAR PV WITH BATTERY CONNECTED SYSTEM	https://irojournals.com/iroeea/article/view/5/1/4
2	GCT (EE002)	GRID INTEGRATION OF VOLTAGE SOURCE CONVERTER USING POWER SYNCHRONIZATION CONTROL	https://irojournals.com/iroeea/article/view/5/1/5
3	GCT(EE004	MISO CONVERTER BASED CONTROL OF SOLAR PV SYSTEM	https://irojournals.com/iroeea/article/view/5/1/6
4	GCT (EE003)	PSO based Solar PV system for SVPWM Controlled Induction Motor for Agricultural Applications	https://irojournals.com/iroeea/article/view/5/1/7
5	GCT (EE005)	DESIGN AND ANALYSIS OF BIDIRECTIONAL BUCK- BOOST CONVERTER FOR GRID TO PHEV AND PHEV TO HOME	https://irojournals.com/iroei/article/view/5/1/7
6	GCT (EE006)	Multilevel Inverter from a New Basic Unit	https://irojournals.com/iroeea/article/view/5/1/10
7	GCT(EE007)	Load Flow Study of GCT Power House Using ETAP	https://irojournals.com/iroeea/article/view/5/1/8
8	GCT(EE013)	Soundless horn using radio communication and accident monitoring using IoT	https://irojournals.com/irosws/article/view/5/1/4
			https://irojournals.com/jucct/article/view/5/1/6
9	GCT(EE022)	Android Application To Control Commercial UAV	
10	GCT-EE042	An overview on potential problems and solution of hybrid microgrids	https://irojournals.com/iroei/article/view/5/1/5
11	GCT- CIT0025	IoT BASED WATER QUALITY MONITORING SYSTEM	https://irojournals.com/irosws/article/view/5/1/3
12	GCT-EE045	Development of Large-Scale Green Energy sources with Grid Integration: Practices and Challenges	https://irojournals.com/iroei/article/view/5/1/6
13	GCT-RTC EE037	An Overview of Artificial Intelligence Ethics: Issues and Solution for Challenges in Different Fields	https://irojournals.com/aicn/article/view/5/1/6

14	GCT EE051	SMART WASTE MANAGEMENT SOLUTION USING IOT FOR SMART CITY	https://irojournals.com/irosws/article/view/5/1/6
15	GCT EE060	A Survey on Cyberbullying Classification and Detection	https://irojournals.com/itdw/article/view/5/2/1
16	GCT(EE014)	A Non Isolated Multiport Converter for E-Vehicle Applications	https://irojournals.com/iroeea/article/view/5/2/2
17	GCT(EE021)	A Comparative Study of Machine Learning-based Approaches for Battery Prognostic Health Analysis using MATLAB	https://irojournals.com/jscp/article/view/5/2/2
18	GCT(EE018)	Pothole detection and prevention using YOLOv5 in ITS (Intelligent Transportation System)	https://irojournals.com/iroiip/article/view/5/2/2
19	GCT-AU EE027	Enhancement of Efficiency in a Three-Phase Induction Motor by Using Nanocoated with Enamel	https://irojournals.com/iroei/article/view/5/2/3
20	GCT AU- EE026	Enhancement of the Characteristics of Natural Ester in Transformer Oil Insulation using Nanofluids	https://irojournals.com/iroei/article/view/5/2/2
21	GCT EE015	IoT Based Monitoring and Alert System For Sewage Worker's Safety	https://irojournals.com/jucct/article/view/5/2/1
		Solar Energy Based Smart Irrigation	
22	GCT EE058	System Using IOT	https://irojournals.com/iroismac/article/view/5/2/1
23	GCT-EE061	IoT-Based Smart Booking Of Electric Vehicle Charging Station	https://irojournals.com/iroismac/article/view/5/2/2
24	GCT-EE062	A Review of Vision Based Fall Detection System	https://irojournals.com/tcsst/article/view/5/2/2
25	GCT-EE063	A Performance Study of Applications of AI in Toxic Comments Classification	https://irojournals.com/aicn/article/view/5/2/2
26	GCT-EE046	A detailed study on Transient Stability Enhancement of Grid-Forming Inverters	https://irojournals.com/iroeea/article/view/5/2/1
27	GCT(EE017)	Industrial Waste-Water Treatment Using IoT	https://irojournals.com/iroismac/article/view/5/2/3
28	GCT(EE024)	SMART CITY TRAFFIC CONTROL SYSTEM	https://irojournals.com/tcsst/article/view/5/2/4
29	GCT-EE064	Text based Tweet Classification using Ensemble Classifier	https://irojournals.com/tcsst/article/view/5/2/3

30	GCT-CIT EE030	Design and Implementation of Closed loop control for Flyback Converter	https://irojournals.com/iroeea/article/view/5/2/4
31	GCT EE049	Analysis of hybrid windmill	https://irojournals.com/iroeea/article/view/5/2/5
32	GCT -EE040	Electricity demand forecasting using LSTMs	https://irojournals.com/iroeea/article/view/5/2/6
33	GCT-CIT EE034	Internet of Things based Electric Vehicle Security and Tracking	https://irojournals.com/iroismac/article/view/5/2/6
34	GCT(EE012)	PMSM Speed Control Using SVPWM Technique	https://irojournals.com/iroei/article/view/5/2/5
35	GCT (EE008)	PERFORMANCE ANALYSIS OF ELECTRIC LOCOMOTIVE USING MATRIX CONVERTER	https://irojournals.com/iroei/article/view/5/2/6
36	GCT(EE016)	AUTOMATIC POLE LINE FAULT DETECTION SYSTEM USING LORA	https://irojournals.com/irosws/article/view/5/2/2
37	GCT(EE019)	SMART HOME SECURITY ANALYSIS USING MICROCONTROLLER	"https://irojournals.com/irosws/article/view/5/2/3
38	GCT(EE010)	Design and Development of Three Phase Detuned Filter Reactor for Reduction of Harmonic Distortion in Power Systems	https://irojournals.com/iroei/article/view/5/2/8
39	GCT(EE011)	Fabric fault and Extra thread Detection Using Convolutional Neural Network	https://irojournals.com/jscp/article/view/5/2/5
40	GCT(EE009)	Solving Economic Load Dispatch with Cubic Fuel Cost Function using Golden Jackal Optimization (title updated) Implementations of Golden Jackal Algorithm for Solving CCFELD Problems	https://irojournals.com/jscp/article/view/5/2/6
41	GCT- MCE EE031	VEHICLE DETECTION AND RECOGNITION FOR ALLOWING INTO PREMISES USING OCR	https://irojournals.com/jucct/article/view/5/2/2
42	GCT (EE065)	Pulse Width Modulation Inverter Control Methods-A Comprehensive Study	https://irojournals.com/iroeea/article/view/5/2/8
43	GCT EE 055	Intelligent AccidentDetectionandVehicleSecurityforTwoWheelers	https://irojournals.com/jucct/article/view/5/2/8



தமிழ்நாடு तमिलनाडु TAMIL NADU 25-3-2019 Dr. R. Then Mozhi

ComsA700.

STAMP VENDOR

126-A, Ramatinga Colony,

M.T.P. Road, Coimbatore - 43 L No: 7333/B1/97F3

Memorandum of Understanding

Between

Government College of Technology

á

M/s. Pyramiid Design India Private Limited

This memorandum of Understanding (MoU), executed at Coimbatore this 27th Day of March 2019 between M/s. Pyramiid Design India Private Limited , an Consulting firm having its office at 11, Bharathi Park Cross Road 2, Coimbatore - 641011 (Hereafter referred to as Pyramiid) , represented by Mr. R.Swaroop Raj, Director

3. Pyramiid allows the Post Graduate (Structural Engineering & Gentechnical

AND

Government Collage of Technology, Coimbatore - 641013, An academic Institution offering quality education in different areas, (Hereafter referred to as GCT) represented by Dr. P. Thamarai, The Principal.

WHEREAS,

- Pyramiid formerly known as Coimbatore Consultants is one of leading Consultancy
 firm, founded in 1958 and is specialized in long span steel structures, designing of
 concrete and steel bunkers for Radiation Therapy, Sustainable buildings in
 industrial, commercial and residential segments. As a Reputed firm, involved in
 design of Delhi International Airport terminal building as sub-consultants to L&T.
- GCT is a reputed institution which offers 9 Under Graduate Programs and 11 Post
 Graduate Programs in Engineering for the benefit of different target groups of
 students.
- Pursuant to the various meetings held, the parties have mutually agreed to bring the familiarization of current practices to the selected students of GCT.

NOW THIS MOU WITNESSETH AS FOLLOWS:

The parities have mutually agrees as follows:

- 1. GCT and Pyramiid, also agree to carry out the following on mutually acceptable terms and conditions:
 - Visits to project sites of Pyramiid. Date of Visit and the batch size will be decided well in advance by mutual consultation.
 - Guest lectures by Pyramiid.
 - Joint consultancy works.
 - Mentoring students to guide them for their future course.
 - Any other interaction on Mutually agreed terms
- 2. In turn, GCT has to extend the facilities available in the campus for organizing the technology upgrading program like Seminar, Workshop and Technical Lectures.
- 3. Pyramiid allows the Post Graduate (Structural Engineering & Geotechnical Engineering) students to undertake project works in their company.

This MOU shall be valid for a period of Three years from the date of first herein

above mentioned and shall be reviewed by both the parties for scope of work and progress

made on an annual basis.

In witness whereof, the parties to this memorandum of Understanding have affixed their signatures on the day, month, year first mentioned above.

For Government collage of Technology

Coimbatore

For Pyramiid Design India

Private Limited, Coimbatore

Signature

27/3/19

Dr. P. Thamarai

Principal

Preparent College of Technology Coimbatore -641 013.

Date

Signature

Mr. R. Swaroop Raj

DIRECTWAROOP RAJ, B.Arch.,

ARCHITECT

Council Reg No : CA/2017/86145 DANG:11, Bharathi Park Cross Road - 2

Coimbatore - 641011

Witness 1

27/3/19

Dr. R. THEMICAMS, Ph.D., Head of the Department Department of Civil Engineering Government College of Technology Colmbatore - 641 013.

Witness 2 Hutling

Dr. R. Chithra M.E.,Ph.D.,
Assistant Professor
Department of Civil Engineering
Government College of Technology
Coimbatore - 641 013

Witness 1

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S. Prabhakanan 35/2 Brilakshmi nivas

4th, Street,

la. K. Pudur

Coimbutore- 641038

Witness 2

11, Bharathi Park Crus Pead-2,

Coimbodore - 641011



JUDIE THE Principal Gravenment College of Technology

Combatore

S. ANANDAKUMAR
STAMP VENDOR

16/1. Lingappa Chetty Lane Vo. 2.
COIMBATORE. TAMILNADU
Licence No: 7333/61/97/

Memorandum of Understanding

Between

Government College of Technology

&

M/s. Pyramid Design India Private Limited

This memorandum of Understanding (MoU), executed at Coimbatore this 6th Day of June 2023 between M/s. Pyramid Design India Private Limited, an Consulting firm having its office at 11, Bharathi Park Cross Road 2, Coimbatore 641011 (Hereafter referred to as Pyramid), represented by Mr. R.Swaroop Raj. Director

AND

Government Collage of Technology, Coimbatore - 641013, An academic Institution offering quality education in different areas, (Hereafter referred to as GCT) represented by Dr.K.Manonmani, The Principal.

WHEREAS.

- Pyramid formerly known as Coimbatore Consultants is one of leading Consultancy firm, founded in 1958 and is specialized in long span steel structures, designing of concrete and steel bunkers for Radiation Therapy, Sustainable buildings in industrial, commercial and residential segments. As a Reputed firm, involved in design of Delhi International Airport terminal building as sub-consultants to L&T
- GCT is a reputed institution which offers 9 Under Graduate Programs and 11
 Post Graduate Programs in Engineering for the benefit of different target
 groups of students.
- Pursuant to the various meetings held, the parties have mutually agreed to bring the familiarization of current practices to the selected students of GCT.

NOW THIS MOU WITNESSETH AS FOLLOWS:

The parties have mutually agrees as follows:

- 1. GCT and Pyramid, also agree to carry out the following on mutually acceptable terms and conditions:
 - Visits to project sites of Pyramid. Date of Visit and the batch size will be decided well in advance by mutual consultation.
 - · Guest lectures by Pyramid.
 - · Joint consultancy works.
 - · Mentoring students to guide them for their future course.
 - · Any other interaction on mutually agreed terms.

- 2. In turn, GCT has to extend the facilities available in the campus for organizing the technology upgrading program like Seminar Workshop and Technical Lectures.
- 3. Pyramid allows the Post Graduate (Structural Engineering & Geotechnical Engineering) students to undertake project works in their company.

This MOU be valid for a period of Five years from the date of first herein above mentioned and shall be reviewed by both the parties for scope of work and progress made on an annual basis.

In witness whereof, the parties to this memorandum of Understanding have affixed their signatures on the day, month, and year first mentioned above.

For

Government College of Technology, Pyramid

Coimbatore.

Deveroment College of Technology Coimbatore -641 013. Principal

Date 06.06.2023

Limited, Coimbatore

For

Signature

Mr. R.Swaroop RapyRAMIID DESIGN INDIA PVT.LTD 11, Bharathi Park Cross Road 2, Coimbatore - 641 011.

India

Phone: 0422 2454520.

Private

Design

Director

Date to Do . 23

Witness 1

Signature:

Dr. R. THENMOZHI, M.E., Ph.D., Professor of Civil Engineering

Plh 4.6.23

Name

Government College of Technology Coimbatore - 641 013

: 06.06.2023 Date

Witness 2

Signature:

Name

THENT OF GIVIL ENGINEERING, T. COLLEGE OF TECHNOLOGY, Date COIMBATORE - 641 013.

Witness 1 S. N

Signature: Prabmakanan S

Name: 16.6.2023

Date

Witness 2

Signature:

Name : Valentia

Date

Government College of Technology
Coimbatore – 641 013
Department of Civil Engineering
Date: 19.03.2019

Submitted to the Principal:

Sub: Dept. of Civil Engineering - Minutes of BoS Meeting held on 01.03.2019 - reg.

The Board of Studies Meeting for the Programme B.E. Degree in Civil Engineering was held on 01.03. 2019. The minutes of the meeting is enclosed herewith.

Ryhw 1913/19 Chairman - Board of Studies

DEPARTMENT OF CIVIL ENGINEERING, GOVERNMENT COLLEGE OF TECHNOLOGY, COIMBATORE - 641 013.

MINUTES OF THE BOS MEETING HELD ON 01.03.2019 from 10.00 a.m. in the CIVIL ENGINEERING SEMINAR HALL.

Date: .03.2019

The BOS meeting for the academic years 2019 - 2020 was held in the Civil Engineering Seminar Hall on 01.03.2019 at 10.00 a.m.

The following members attended the meeting.

Sl. No.	Name and Designation	Designation	Signature
1	Dr.R.Thenmozhi, Professor,(CAS) Government College of Technology, Coimbatore-641013	Chairmen	RHLMIBTI
2	Dr.R.Senthil Professor and Head Department of Civil Engineering CEG Campus, Anna University, Chennai-600025.	University Nominee	Berkinsin
3	Dr. V.Sivakumar, Associate Professor, Department of Aerospace Engineering, Amirtha School of Engineering, Amirtha Vishwa Vidyadeetham, Coimbatore-6411112. Mobile No:9486420028	Academic Expert member	Ju-
4	Dr.D.Tensing Professor of Civil Engineering Karunya Institute of Technology Coimbatore-641114 Mobile: 9487846515.	Academic Expert member	Acet 1/3/19
5	Er.T.Ragavendra Managing Director PYRAMIID DESIGN INDIA PVT. LTD., 11, Bharathi Park Cross Road No.2, SaibabaColony, Coimbatore-641 011	Industry Representative	Doglandin
6	Dr.S.T.Ramesh Professor of Civil Engineering National Institute of Technology, Trichy-620015.	Postgraduate meritorious Alumnus	ABSENT
7	Dr.D.Padmini HOD (UG)	Member	hemmin
8	Dr. J. Jeyanthi HOD (PG)	Member	1.20

	Dr. S. P. Jeyapriya	Member	9 13/19
9	Associate Professor(CAS)	Member	c. revious 13119
10	Associate Professor(CAS) Prof. S. Murugan,	Member	DOV. (SIR
11	Associate Professor(CAS)	Member	S. Sathyate
12	Dr. S. Sathyapriya, Assistant Professor.		111 200
13	Dr. S. Chithra, Assistant Professor.	Member	Source 13/11
14	Dr. R. Chithra,	Member	Rhillio 18/19
15	Assistant Professor. Prof. K. Rekha,	Member	7.13/19
	Assistant Professor Dr. M. Rama,	Member	8000 103 2019
16	Assistant Professor Prof. G. Dhamodhara Kannan,	Member	G. Sharry
17	Assistant Professor. Prof. V. Satheeskumar,	Member	17.52
18	Assistant Professor.		100 1
19	Prof. M. C. Ravathi, Assistant Professor.	Member	13/17
20	Prof. S. Makesh Kumar, Assistant Professor.	Member	5. mundo Per
21	Prof. R. Bhuvaneswari, Assistant Professor.	Member	R Shuans
22	Dr. M. Kumar Assistant Professor.	Member	You
23	Prof. P. Andavar Assistant Professor.	Member	8 j
24	Prof. C. Bharathi Assistant Professor.	Member	01/03/2019
25	Prof.K.Rajesh Kumar Assistant Professor.	Member	KREY.
26	Mr.J.Sudharsan, (Final Year B.E.) Reg.No.1511195	Student Representative	Sidher J.
27	Ms.C.Poushya, (ThirdYear B. E.) Reg.No.1611169	Student Representative	Perso.

The Chairman welcomed all the members of the Board of Studies. She also gave a special word of welcome to all the expert members.

After the self introduction of members, each agenda were discussed in detail during the Board meeting and the following resolutions were made.

Agenda 1:

(a) It was proposed that, the Mandatory course 18CMC002 -Constitution of India is to be removed and the new subject Environmental Sciences has to be included in the curriculum. Dr.V.Sivakumar and Er.T.Ragavendra suggested to keep the curriculum of India as a mandatory course and the other mandatory course Constitution of India as a mandatory course and the other mandatory course Disaster Mitigation and Management can be replaced with Environmental sciences.

Agenda 2:

- (a) In the curriculum of III semester, the existing course title 18CBS301-Transforms and Discrete mathematics was changed to 18CBS301-Transform Calculus and Partial Differential Equations as per First year board and the change was approved by BOS, Civil Board.
- (b) The practical course 18CPC506-Soil Mechanics laboratory is renamed as Geotechnical Engineering Laboratory by Dr. R. Thenmozhi, Chairman, Board of studies and approved by Dr.R. Senthil, Anna University Nominee.
- (c) Dr. R. Thenmozhi, Chairman, Board of studies suggested the need of incorporating Structural Analysis laboratory with Concrete laboratory and also emphasized the need to have separate Transportation Engineering Laboratory. In V semester, the practical course 18CPC507-Concrete lab (0.75 credits) is changed as Concrete and Structural Analysis laboratory (2 credits)and Highway lab (0.75 credits) is renamed as Transportation Engineering laboratory (2 credits) and shifted to Sixth Semester.

Agenda 3:

- (a) Dr.R.Senthil pointed that in 18CES302- Engineering Mechanics subject, the chapters Kinetics and Kinematics kept as one unit is very difficult for the teacher to cover the contents so also difficult for the students to understand. Dr.V.Sivakumar mentioned that, adding the unit Beams in Engineering mechanics is not appropriate as it is deformable bodies while Engineering Mechanics concentrates on Rigid Body Mechanics.
- (b) Dr.R.Senthil renamed the practical course 18CPC308-Strength of materials laboratory as Materials Testing Laboratory.
- (c) Dr.R.Senthil suggested to add topics like Earthquake, Earth's crust, Wave generation, and seismology in the subject 18CPC401-Engineering Geology and the credits can be increased to 3credits. Hence, implemented.

- (d) Dr.V.Sivakumar highlighted the importance of introducing composite materials in the course 18CPC402-Construction Materials and Technology. Dr.R.Senthil also emphasized on the usage of glass, M-Sand, Light weight Blocks, Flyash blocks, interlocking blocks, self-sustaining blocks and suggested to add in the syllabus by removing a part of conventional materials.
- (e) Dr.R.Senthil suggested to remove Masonry from the course Basic Structural Design – I. Er.T.Ragavendra insisted about usage of cold formed steel in Industries and suggested to add one unit in Basic Structural Design – I. Hence, unit on Masonry is removed and cold formed steel is introduced.
- (f) Dr.D. Padmini, Head of the Dept(UG-Civil) and Dr.J. Jeyanthi, Head of the Dept(PG-Environmental) suggested to increase the credits from 2 to 3 for the subject 18CPC404-Applied Hydraulics and Fluid Machinery. Dr.R.Senthil and Dr.D.Tensing accepted it.
- (g) Dr.R.Senthil and Er.T.Ragavendra suggested that Environmental science can be included as one of the Mandatory courses in addition to Constitution of India. They also added that, the Mandatory course Disaster Mitigation and Management can be taken to open elective list which is essential to be known by all undergraduate students. Dr.V.Sivakumar also pointed that Supreme Court order has emphasized on the importance of Environmental Science as a part of curriculum.
- (h) Er.T.Ragavendra asked to carry out few improvements in unit 4 in the subject 18CHS505-Professional Practices, Ethics and Building bye-laws. He advised to incorporate contents on Project Report preparation, safety, building bye-laws with NBC, PWD recommendations in the subject.
- (i) Er.T.Ragavendra mentioned to add Quality Assurance /Quality Control in the course 18CPC701-Construction Management.
- (j) Er.T.Ragavendra highlighted the importance of adding current standards of valuation in the course 18CPC702-Engineering Economics, Estimation and Costing as these standards are now being converted into acts.
- (k) Dr.R.Senthil pointed out the importance of uniform distribution of class hours of 9 hours for all units and for all courses of 3 credits. He also specified the changes of credit from 4 credits to 3 credits for the course 18CEE704-Design Project and for 18CEE801-Project work the credit is changed from 8 credits to 6 credits.
- (l) Dr.D.Tensing advised to rename the units like Slabs and T-beams for Unit 2 and Box Culvert for unit 3 of the Professional Elective subject 18CPE007-Bridge

Engineering. He also suggested to add bearings, substructures, maintenance and inspection in unit 5.

- (m)Dr.R.Senthil suggested to add types of grouting like cement grouting and lime Grouting in the course 18CPE016- Ground Improvement Techniques.
- (n) Dr.V.Sivakumar advised to change the title of the subject 18CPE019 Highways-State of Art to Highway Practices.
- (o) After thorough examination of the entire curriculum, Dr.R.Senthil also supported to increase the credits of all practical courses from 1.5 to 2 credits. It includes one Assignment as the design of elements/components/model making which was taught in the practical classes relevant to the particular course. Dr.V.Sivakumar advised to have one experiment as a real case study for creation of simple models once the regular experimental works are completed.

Agenda 4:

- (a)Er.T.Ragavendra insisted to change the title of the subject as Yoga and Stress management instead of Yoga for personality Development.
- (b) Student Member J.Sudharsan asked for shifting the subject 18CPC401-Engineering Geology to third semester and 18CPC303-Strength of Materials to fourth semester. But, the members of BOS analysed the possibility of shifting the course and it was not possible to accommodate his request. Hence, decided as such.

Finally Chairman thanked all the Internal members, external members and student members for their active participation in the meeting.

CHAIRMAN - BOARD OF STUDIES

Copy of Supplied

Department of Civil Engineering, Govt. College of Technology, Coimbatore – 641 013. Date: 2 \.03.2023

Submitted to the Principal and Chairman:

Sub: Second BOS meeting - F.T. B. E., Civil Engineering - Verticals for 2018 A Regulations - Syllabus for III and IV Semesters 2022 Regulations - Part Time B.E. 2023 Regulations Curriculum and Syllabus for I semester - Minutes and Remuneration details - Submitted - Reg.

Ref: Prl's Letter No.: GCT/COE/BOS/UG/CURRICULA & SYLLABI/2023, Dated: 16.03.2023

With reference to the letter cited above, the second Board of Studies (BOS) meeting for the Full Time B.E. Civil Engineering 2018 A and 2022 Regulations and Part Time B.E. Civil Engineering 2023 Regulations was conducted on 21.03.2023 in the seminar hall. In this regard, a sum of Rs.71,639/-(Rupees Seventy one thousand six hundred and thirty nine only) to be paid as remuneration for the outside expert members, internal members, student representatives and refreshment charges. Hence, it is requested that kindly sanction the above mentioned amount for the conduct of the meeting. Also permission is requested that the remuneration may be transferred to the respective members through their bank account.

Chairperson

Board of Studies / (U.G. Civil Engineering)

Encl:

- 1. BOS Minutes Copy
- 2. Details of remuneration bills
- 3. Refreshment bill

Government College of Technology, Coimbatore - 13.

Department of Civil Engineering

Board of Studies Meeting Date: 21.03.2023

Details of Expenditure

Sl. No.	Description	Voucher No.	Total amount (Rs.)
1.	Remuneration for External members	1	20,000
2.	Sitting fee for Internal members	2	45,000
3.	Sitting fee for student representatives	3	500
4.	Refreshment charges	4	6,139
	Grand Total	1	71,639/- (Rupees Seventy one thousand six hundred and thirty nine only)

Chairperson

RYher 31.3.23

Board of Studies / (U.G. Civil Engineering)

Government College of Technology, Coimbatore – 13.

Department of Civil Engineering

Board of Studies Date: 21.03.2023 Details of Remuneration

SI. No.	Name and Designation	Designation	Sitting Fee (Rs.)	D.A (Rs.)	T.A (Rs.)	Total (Rs.)	Account Number with IFSC code	Signature
1	Dr.P.Vinayagam, Professor / Department of Civil Engineering, Coimbatore Institute of Technology, Coimbatore-641014.	University Nominee	2500	500	1000	4000	P.Vinayagam 32918033448 State Bank of India P B Branch, Saibaba colony IFSC Code: SBIN0012769	Mon.
2	Dr. V.Sivakumar, Chairperson & Professor Department of Aerospace Engineering, Amirtha School of Engineering, Amirtha Vishwa Vidyadeetham, Coimbatore – 641112.	subject expert	2500	500	1000	4000	V Sivakumar 006200100 096039 Dhanlaxmi Bank, Ettimadai Branch IFSC Code: DLXB0000253	A.
3	Dr.C.Gajendran, Associate Professor, Department of Civil Engineering, Karunya Institute of Technology and Sciences, Coimbatore - 641046	subject expert	2500	500	1000	4000	C. Gajendran 917010078116214 AXIS BANK Branch: Iruttupallam Coimbatore IFSC: UTIB0003730	+
4	Er.T.Ragavendran, Managing Director, M/s. Pyramid design India pvt.ltd. 11,Bharathi Park Cross Road No.2,Saibabacolony, Coimbatore-641011.	Industry Representative	2500	500	1000	4000	T.Ragavendran 04910120007435 Kotak Mahindra Bank R S Puram KKBK0000490	Defend
5	Prof.T.Ramesh, Assistant Professor, Department of Civil Engineering, PSG College of Technology, Coimbatore - 641004	Post graduate meritorious alumnus	2500	500	1000	4000	T.Ramesh 1481337868 Central bank of India, Peelamedu IFSC code: CBIN0280913	Rm
	TOTAL		12,500	2,500	5,000	Rs. 20,0	000/-	

Ryhv31.3.23

Chairperson
Board of Studies (U.G. Civil Engineering)

Government College of Technology, Coimbatore – 641013 Department of Civil Engineering Board of Studies Meeting Date: 21.03.2023

SI. No.	Name and Designation	Designation	Account Number with IFSC code	Sitting Fee (Rs.)	Signature
1.	Dr. R. Thenmozhi, Professor and HOD	Chairman	10663296001 IFSC: SBIN0012769	2500	Ryben
2.	Dr. J. Jeyanthi Professor / HOD (P.G. Env.) Member 10663291503		10663291503 2500 ABSENT		
3.	Dr. S. P. Jeyapriya Professor (CAS)	Member	10663294990	2500	Spy
4.	Dr. C. Meiaraj Professor (CAS)	Member	10663294923	2500	Chemistry
5.	Dr. S. Murugan, Asso. Professor (CAS)	Member	10507934248	2500	() () () () () () () () () ()
6.	Dr. S. Sathyapriya Assistant Professor	Member	30066634959	2500	S. Satherar
7.	Dr. S. Chithra Assistant Professor	Member	10663315989	2500	Add 2/3/23
8.	Dr. R. Chithra Asso. Professor (CAS)	Member	30116714728	2500	Chilm
9.	Dr. K. Rekha, Assistant Professor	Member	30116714161	2500	12/3/23
10.	Dr. G. Dhamodhara Kannan, Assistant Professor Member 3195		31958594845	2500	6.9hm 21/3/23
11.	Dr. M. Rama, Assistant Professor	Member	31222405631	2500	6000 3/23
12.	Dr. M. Kumar Ph.D., Assistant Professor	Member	30365989970	2500	Kall 3/13
13.	Dr. V. Sathees kumar, Assistant Professor	Member	31765059329	2500	6.5
14.	Dr. M. C. Ravathi, Assistant Professor	Member	10663316029	2500	Mehrul 21/3/23
15.	Prof. S. Makesh Kumar, Assistant Professor	Member	20155164065	2500	5. marsh 12 /2/22
16.	Dr. R. Bhuvaneswari, Assistant Professor	Member	30273753856	2500	P. Ash 21/3/23
17.	Prof. P. Andavar Assistant Professor	Member	30897017941	2500	Din safata
18.	Prof. C. Bharathi Assistant Professor	Member	20374815907 IFSC:SBIN0012245	2500	Am 21/3/2023
19.	Prof.P.Nirmal Assistant Professor	Member	31600202187 IFSC:SBIN0000971	2500	ABSENT
20.	Prof. K. Rajesh Kumar, Assistant Professor	Member	20193785419	2500	12.
			TOTAL	Rs. 45,000/	

Ryher 31.3.23 Chairperson

Board of Studies (U.G. Civil Engineering)

Government College of Technology, Coimbatore - 641013.

Department of Civil Engineering

Board of Studies Meeting

Date: 21.03.2023

Sl. No.	Name and Designation	Designation	Account Number with IFSC code	Sitting Fee (Rs.)	Signature
1.	R. Hemasree , (Reg.No.1911125) Final Year Student	Student Representative	Karur Vysya Bank 1734155000044666 KVBL0001734	250	R. Hemaszee
2.	R. Sivaram , (Reg.No.2011191) Third Year Student	Student Representative	INDIAN BANK 6729152624 IDIB000K131	250	21/3/23
		TOTAL		Rs. 500/- (F	ive hundred only)

Chairperson

Board of Studies (U.G. Civil Engineering)

PMW31.3.23

CASH BILL

No. 075

Date 23/3/2023

GOVERNMENT COLLEGE OF TECHNOLOGY

Non-Residential Students' Centre

COIMBATORE - 13

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This is to certify that, the above expenditure was in entred towards the supply of food items, snacks and tea for the Bos meeting of civil Engineering department held as 21.03.2023.

Richard 1805 civil Engy.

GOVERNMENT COLLEGE OF TECHNOLOGY - COIMBATORE -13

(An Autonomous Institutions Affiliated to Anna University, Chennai)

Department of Civil Engineering Minutes of Board of Studies Meeting

Dated: .03.2023

The second **Board of Studies** meeting for the academic year 2022-2023 was held on 21.03.2023 (Tuesday) at 02:30 p.m. in the Seminar hall of Civil Engineering department. The following members attended the meeting.

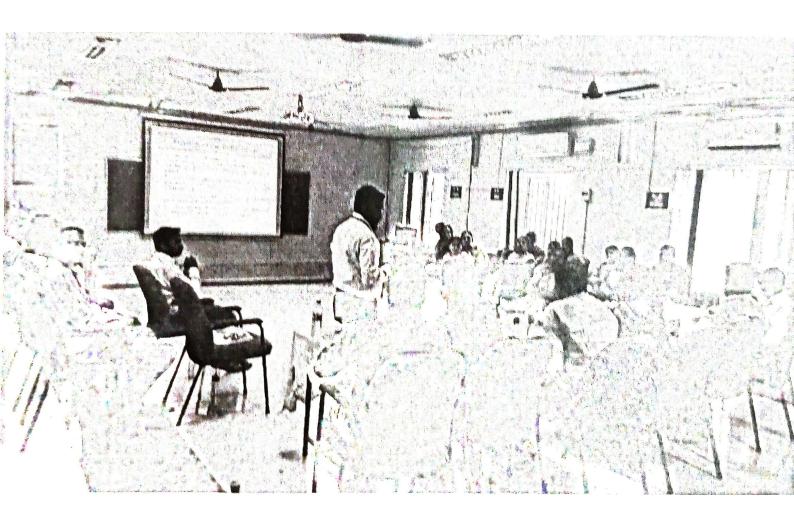
1.	Dr. R. Thenmozhi,	Chairperson	RYpin
_	Professor & HOD		7000
2.	Dr.P.Vinayagam, Professor / Department of Civil Engineering, Coimbatore Institute of Technology, Coimbatore-641014.	University Nominee	Kigz
3.	Dr. V.Sivakumar, Chairperson & Professor Department of Aerospace Engineering, Amirtha School of Engineering, Amirtha Vishwa Vidyapeetham, Coimbatore – 641112.	Subject Expert	8
4.	Dr.C.Gajendran, Associate Professor, Department of Civil Engineering, Karunya Institute of Technology and Sciences, Coimbatore - 641046.	Subject Expert	4il
5.	Er.T.Ragavendran, Managing Director, M/s. Pyramid design India pvt.ltd. 11,Bharathi Park Cross Road No.2, Saibabacolony, Coimbatore-641011.	Industry Representative	my de
6.	Prof.T.Ramesh, Assistant Professor, Department of Civil Engineering, PSG College of Technology, Coimbatore – 641004.	Post graduate meritorious alumnus	Road
7	Dr.J.Jeyanthi Professor	Member	ABSENT.
8	Dr.S.P.Jeyapriya Professor (CAS)	Member	SAM
9	Dr.C.Meiaraj Professor (CAS)	Member	e-Niiaist
10	Dr.S.Murugan Associate Professor (CAS)	Member	10/2/223
11	Dr.S.Sathya priya Assistant Professor	Member	8 sallyax

Proceedings:

The Board of Studies (BOS) meeting began with the welcome address by Dr.R.Thenmozhi, Chairman of the BOS. The Chairman highlighted the sole agenda of the meeting.

The Board of Studies expert members expressed their views and valuable suggestions for the enrichment of student's knowledge in curriculum of B.E. Degree (Full time and Part Time) Civil Engineering programme.

- The Chairperson Dr.R.Thenmozhi has disseminated the Vision and Mission of the department, Programme Educational Objectives (PEOs) and Programme Specific Outcomes (PSOs) for NBA requirements. All the expert members have accepted the statements of vision and mission of the department, PEOs and PSOs.
- The Chairperson has outlined the introduction of Verticals in 2018-A Regulation as per the parent University norms. The committee members have accepted for the modification done in 2018-A regulation as per University norms.
- 3. The Chairperson has presented the syllabus content for the subjects listed in the Verticals I to IV namely Structural Engineering, Environmental Engineering, Geotechnical Engineering and Infrastructure Engineering for honours and honours with specialization in Civil Engineering.
- 4. The Chairperson also presented the syllabus content for the subjects listed in the Vertical I Sustainability in Civil Engineering for minor degree. All the expert members have accepted the revised curriculum and syllabus content in the 2018 A regulations verticals.
- The Chairperson has presented the curriculum and syllabus of 2022 regulations of F.T.B.E Civil Engineering (III and IV semesters) and it was approved by all the expert members.
- The Chairperson has presented the course content of Naan Mudhalvan courses
 offered during 2022 2023 (odd semester) as per the State Government norms and
 it was approved by the BOS members.
- The Chairperson has presented the syllabus content of the CDIO (Conceive-Design-Implement-Operate) course "Engineering Exploration" listed in the IV semester curriculum and it was recommended by all the expert members.
- 8. The Chairperson has presented the 2023 regulations curriculum of P.T.B.E Civil



CIRCULAR

Cr.No.ICC/C1/April 22

Sub: Reconstitution of Industrial consultation Committee for the Academic year 2022-23

To strengthen the interaction with industries and to keep the students updated with the recent trends cutting edge technologies, the Industry Consultation Committee (ICC) is reconstituted for the academic year 2022-23 with the following members.

The committee meeting will convene twice in a year to discuss the curriculum and syllabi revision and to receive the expertise for the procurement of technologically advanced equipment which are required for the teaching and research activities of the institution.

CN	Members	Designation		
S.No	Dr. P.Thamarai	Convener		
1.	Dr. K.Ramesh	Chairman-BoS / Mech		
2.	Dr. R.Thenmozhi	COE/ Chairman-BoS / Civil		
3.		Chairman-BoS / Civil & IBT		
4.	Dr. J.Jeyanthi	Chairman-BoS / EEE & EIE		
5.	Dr. V.Gopalakrishnan	Chairman-BoS / ECE		
6.	Dr. C.Shanthi	Chairman-BoS / CSE		
7.	Dr. J.C.Miraclin Joyce Pamila	Chairman-BoS / IT		
8.	Dr. S.Rathi	Chairman-BoS / Production		
9.	Dr.S.Srinivasa Moorthy			
10.	Prof. S.ParimalaMurugaveni	Coordinator, ICC		
11.	Er. T. Ragavendra, Managing Director, PYRAMID DESIGN INDIA PVT. LTD, Coimbatore	Industry Expert / Civil		
12.	Er.Pandurangan,Principal Member, Project Management, TAFE ,Chennai	Industry Expert / Mechanical		
13.	Mr. G.Laxmi Narayanan, Engagement Manger, Consulting, DELOITTE INDIA, Bangalore	Industry Expert / EEE		
14.	Mr.M.Murali, Senior Project Manager, ROBERT BOSCH, Coimbatore	Industry Expert / ECE		
15.	Er. B. Sundararajan, Marketing Director, GROWINS PRECICASTS PVT LTD. Coimbatore	Industry Expert / Production		
16.	Er. P. Saravanakumar, Associate Project Manager, ROBERT BOSCH, Coimbatore	Industry Expert / EIE		
7.	Dr. R.Pradeep Kumar, Founder, AMPHISOFT TECHNOLOGIES PVT LTD, Coimbatore.	Industry Expert / CSE		
8.	Mr. V. Paramasivam, Team Head, TRIVECTA DIGITAL SOLUTIONS PVT LTD, Chennai	Industry Expert / IT		
9.	Mr. Saji Abraham, Director of Operations, TSEMACH BUSINESS CONSULTANCY PVT LTD, Coimbatore	Industry Expert / IBT		

Copy To

- 1. The Principal Table
- 2. The Controller of Examinations
- 3. BoS Chairman of all departments
- 4. The Industry Experts through BoS Chairman
- 5. Prof.S.ParimalaMurugaveni, Asso.P/Mech

Memorandum of Understanding Between



GOVERNMENT COLLEGE OF TECHNOLOGY Coimbatore - 641 013 Tamilnadu, India

And

STRUCTWELL
No 17, K S Arunachalam Street
K K Pudur Post, Coimbtore - 641 038



தமிழ்நாடு तमिलनाडु TAMIL NADU

27-1-2023 THE PRINKIPAL CACT - COIMBATOUR

I. MARY EVANGELIN REBA

STAMP LENDOR 126-A, Ramauriga Colony, M.T.P. Road, Coimbatore - 43 L No: 7333/B1/97F3

This Memorandum of Understanding (MOU) is executed on 27th January 202

Between

STRUCTWELL, which is an Engineering Consultancy with its Registered Office at No 17, KS Arunachalam Street, KK Pudur Post, Coimbatore, Tamilnadu, Which is one of the Registered Structural Engineering Consultancy Company in Coimbatore,

And

Government College of Technology is a reputed institution which offers many Engineering courses in various disciplines (hereinafter referred to as GCT Coimbatore)

PREAMBLE

WHEREAS, STRUCTWELL is engaged in research, design and development and consultancy in the field of Engineering and Technology, Material Science and Planning.

WHEREAS, GCT Coimbatore, which is a reputed institution which offers many Engineering courses in various disciplines and is also contributing to the rapidly growing scientific and technological knowledge and professional excellence in technology by undertaking various research and consultancy activities.

WHEREAS, both STRUCTWELL and GCT Coimbatore, now, Recognizing the importance of research and development in the areas of Building science, Engineering Sciences, Engineering Geology and Material Science.

Appreciating the need for creation of large reservoir of highly qualified manpower in all fields related to Building Science and Technology including Structural Engineering, Geotechnical Engineering, Material Science and Planning and other areas of Engineering.

Desiring to enhance their efforts by joining their expertise and resources.

INTEND to form a Synergistic Framework for promoting development and growth of excellent quality manpower in the fields of Engineering, Technology and Science with a focus on Civil Engineering, Building Science, Engineering Geology and other branches of Engineering, Technology and Science. NOW, THEREFORE in consideration of the mutual promises made herein and of good and valuable consideration, the receipt and sufficiency of which both Structwell and GCT Coimbatore hereby acknowledge, Structwell and GCT Coimbatore hereby agree as under:

ARTICLE -I: SCOPE OF THE MOU

This MoU details the modalities and general conditions regarding collaboration between Structwell and GCT Coimbatore for enhancing, within the country, the availability of highly qualified manpower in the area of Civil Engineering, Building Science and Technology, Structural & Geotechnical Engineering and other areas of Engineering, Technology and Sciences without any prejudice to prevailing rules and regulations in Structwell and GCT Coimbatore and without any disregard to any

mechanism evolved and approved by the competent authorities under Govt. of India/State Government of Tamilnadu in so far as such mechanism applies to Structwell and/or GCT Coimbatore. The areas of cooperation can be extended through mutual consent.

ARTICLE - II: SCOPE OF ACADEMIC INTERACTION

Structwell and GCT Coimbatore shall encourage interaction between Structwell and GCT Coimbatore faculty members and students through the following arrangements.

- a. Guidance of student's projects/thesis in Structwell in the area of building science and technology of national interest on mutually agreeable terms as listed below:
- i) A Consultant / R&D Engineer at Structwell may be appointed as a Research Co-Guide for a student Registered for Ph.D. degree at GCT.
- ii) The students will carry out their PhD research work/ or project at Structwell under the guidance of Engineers of Structwell.
- iii) There will be no restrictions on the contents of the thesis and on publications of results of the thesis, subject to the condition that Intellectual Property Rights can be secured for any part of the work which will be decided with mutual consent.
- iv) Structwell will be free to independently carry out follow-up research on the thesis work conducted under this scheme.
- v) If the outcome of a project related to product development, process, technology and design etc. which involves matter of secrecy and concern with security of the state and country the same will not be allowed for publication/printing in any form such as Electronically/verbal etc. If the outcome of a project results into an intellectual property, for which rights can be secured, it will be decided on case to case basis. Similarly, sharing of expenditure in securing such rights and income accrued through royalty etc by the parties under the law will be decided on case to case basis after mutual consultation.

vi)Joint guidance of student projects / theses in Structural Engineering, Seismic Micro zonation, Geotechnical Engineering, Building Science & Technology, Engineering Geosciences and other areas of mutual interest at GCT Coimbatore by Structwell Scientists and faculty of GCT Coimbatore as per rules and regulations of both institutes.

- b) Organization of joint Conferences and Seminars
- c) Practical training for students of M.E. Structural Engineering and M.E. Geotechnical Engineering of GCT Coimbatore at Structwell and vice-versa.
- d) Participation of Structwell Experts in GCT Coimbatore programmes and events as well as participation of Faculty and Students of GCT Coimbatore to participate in research programmes and events of Structwell, based on mutual agreement and approvals of both organizations as appropriate.
- e) Initiation of collaborative research and submission of joint project proposals by Structwell and GCT Coimbatore to external funding.
- f) Structwell shall be allowed permission to conduct campus interviews and recruit selected students of GCT Coimbatore for employment.

ARTICLE — III: SHARING OF FACILITIES

- a) Structwell and GCT Coimbatore shall make provisions to share their respective R&D facilities in order to promote academic and research interaction in the areas of cooperation subject to approvals and availability.
- b) Structwell and GCT Coimbatore shall permit the exchange of software and other materials and components developed in-house in the areas of cooperation, if permissible, within the rules governing the two Organisations.
- c) Structwell and GCT Coimbatore shall provide access to the library and extend interlibrary loan facilities to scientists of Structwell, members of faculty and students of GCT Coimbatore as per the prevailing rules and norms in the respective institutes.

- d) Structwell and GCT Coimbatore shall permit access to library collection through Elibrary in which the users enjoy the euphoria of being in distance and still access library collection with the use of internet network.
- e) GCT students/Faculty shall be responsible for the Visa, travel and accommodation costs for availing the Structwell oversee facilities

ARTICLE —IV: EFFECTIVE DATE AND DURATION OF MOU

- a) This MoU shall be effective from the date of its approval by competent authorities at both ends.
- b) The duration of the MoU shall be for a period of **5 years** from the effective date and may be extended further on mutual agreement.
- c) During its tenancy, the MoU may be extended or terminated by a prior notice of not less than six months by either party. However, termination of the MoU will not in any manner affect the interests of the students who have been admitted to pursue a programme under the MoU, or progress of any ongoing mutual activity that has been initiated formally with approval of both sides.
- d) Any clause or article of the MoU may be modified or amended by mutual agreement of Structwell and GCT Coimbatore.

ARTICLE - V: IPR

Rights regarding publications, patents, royalty, ownership of software / design / product developed etc. under the scope of this MoU shall be decided by the two parties by mutual consent.

ARTICLE — VI: ARBITRATION

Any dispute arising out of this MoU will be resolved amicably by mutual consultation. If such resolution is not possible then the unresolved dispute will be referred jointly to Structwell and The Principal, GCT Coimbatore. The outcome of the joint decisions of the Director/Principal shall be binding upon both the parties.

ARTICLE - VII: CONFIDENTIALITY

During the tenure of the MoU information to be shared must be indicated as "confidential" or "non-confidential". Both Structwell and GCT Coimbatore will maintain confidentiality and prevent disclosure of all the information designated as "confidential" except by mutual agreement.

IN WITNESS WHEREOF PARTIES HERE TO HAVE ENTERED INTO THIS AGREEMENT EFFECTIVE AS ON THE DATE AND YEAR FIRST WRITTEN ABOVE.

Dr.P. Thamarai

Principal Government College

Coimbatore Tamil Nadu, India

Date: 27.01.2023

PCE, GCT, CBE-13

Witness 1: C. W. Our J. C. METMENS ICECCHO, GCT, CBE. Er. B. Kamaraj

STRUCTWELL, No 17, K S Arunachalam Street, K K Pudur Post, Coimbtore Tamil Nadu, India

Date: 27 - 61-13 V. Balguyuph.

V. BALADI RANGANATHAN.

Swan Design Consultancy

coimbatore.

2. 8. Somod. S. SANTHOSHKUMAR

SITE ENGINEER

STRUCTHELL COIMBATORE. From
District Collector,
The Nilgiris,
Udhagamandalam

To The Principal, Govt. College of Technology, Coimbatore – 641 013

Madam,

Rc.DM/42/2021 Dated: 23.01.2023

Sub: Disaster Management – The Nilgiris District – Soil and Rock samples testing in disaster prone areas- Release of payment for borehole drilling work at New Attuboil and Kuttimani nagar (Nehrukandi) – Reg

Read: 1. This office letter No.DM/42/2021, Dated:17.05.2022

2. Letter No. PCE/Civil Engg/ Soil and Rock Testing/2022, dated:26.05.2022 of the Principal, Govt.College of Technology, Coimbatore- 13.

3. Proceedings No. Proc.No.O.C-I/563/2020, Dated:28.09.2022 of the Additional Chief Secretary/Commissioner of Revenue Administration & State Relief Commissioner

4. Budget requirement for detailed studies delineated for 5 vulnerable sites submitted by Dr.K.Jayabalan, Expert Team on 30.09.2022

5. This office letter No. Lr. No. DM/42/2021, Dated:11.10.2022

6. This office letter No. Lr. No., DM/42/2021, Dated:22.11.2022

7. Letter of the Principal, Govt. College of Technology, Coimbatore-13

8. Letter No.PCE/SOIL/Soil testing/2022 dated: 30.11.2022 of the Principal, Govt. College of Technology, Coimbatore-13

9. This office letter No. Lr. No. DM/42/2021, Dated:01.12.2022

10. Letter No:PCE/SOIL/Rock & Soil Testing/2022, Dated:08.01.2023 of the Principal, Govt. College of Technology, Coimbatore

In the reference 10th read above, it has been stated that, the HOD, Civil Engg, GCT, Coimbatore has arranged the M/s. STRUCTWELL structural consultancy for borehole soil investigation and Geophysical investigation. It has been further stated that after a site visit made by GCT faculty team and consultant from M/s. STRUCTWELL structural consultancy on 19.12.2022,

work order for drilling work was given to the above said company. It has been further stated that, based on that, M/s.STRUCTWELL structural consultancy, Saibaba colony, Coimbatore-38, along with the drilling team have completed the borehole drilling work and geophysical investigation at two of the vulnerable areas from 26.12.2022 to 02.01.2023 and subsequently, M/S. STRUCTWELL structural consultancy has completed the work and has raised a bill of charges for an amount of Rs.4,20,376(Rupees Four Lakhs Twenty Thousand Three Hundred and Seventy Six only) towards drilling operations.

Accordingly, the Principal, Govt. College of Technology, Coimbatore has requested for a direction and concurrence order towards the release of the payment of Rs.4,20,376/- (Rupees Four Lakhs Twenty Thousand Three Hundred and Seventy Six only) to M/s.STRUCTWELL structural consultancy, Coimbatore towards drilling operations.

In this regard, I wish to state that an amount of Rs.15,93,000/-

(Rupees Fifteen Lakhs Ninety Three Thousand Only) was transferred to the Principal, Government College of Technology by means of cheque for soil testing inclusive of all other charges and subsequently, MOU has been signed between the Principal, Govt. College of Technology, Coimbatore and the private Agency M/S.STRUCTWELL structural consultancy for carrying out drilling works. Hence, the Principal, Government College of Technology, Coimbatore may make any decision at your level in connection with soil testing.

Sd/-S.P.Amrith., District Collector, The Nilgiris.

Copy to

The Expert Team,
Disaster Management Section,
Collector's office,
The Nilgiris.

//t.c.b.o//

For Collector,

The Nilgiris.

Department of Civil Engg. (Soils)

Government College of Technology

Coimbatore

Date: 24.01.2023

Submitted to the Principal

Madam,

Sub: Rock and soil testing-Disaster Management-The Nilgiris District-Release of Payment for Borehole drilling works at New Attu boil and Kuttimani nagar to M/s STRUCTWELL structural consultants - -reg

Ref:

- 1. Lr.No.PCE/Civil Engg/Soil and Rock testing/2022dated 26.05.22
- 2. Lr No.: DM/42/2021 dated: 22.11.2022
- 3. Lr. No.: PCE/SOIL/Soil Testing/2022 dated: 30.11.22
- 4. Lr.No.: DM/42/2021 dated: 01.12.22
- 5.Lr.No.PCE/Civil Egg/Soil and Rock testing/2022dated 09.12.22
- 6.Lr.No.PCE/Civil Egg/Soil and Rock testing/2022dated 08.01.23
- 7. Lr No.: DM/42/2021 dated: 23.01.2023

In the letter (1) cited above, the details of test and the approximate cost for soil and rock specimen testing was provided by Department of Civil Engineering, GCT, Coimbatore. The budget requirement for detailed studies delineated for 5 vulnerable sites on priority basis was furnished by the expert team and a cheque amounting to Rs. 15.93 lakhs was submitted by the expert team vide reference 2.

In continuation of our letter (3) cited above, after the communication received vide reference 4 from district administration ,the HOD, Civil Engg, GCT, Coimbatore has arranged the M/s. STRUCTWELL structural consultancy for borehole soil investigation and Geophysical investigation with whom the MOU has been initiated by GCT.

It is also communicated vide reference 5 that, among the five vulnerable zones, it is proposed to take up the work in two locations including drilling operations for the amount received vide reference 2 to the Nilgiris District

Based on that, M/S. STRUCTWELL structural consultancy, Saibaba colony, Coimbatore-38, along with the drilling team have completed the borehole drilling work and geophysical investigation at two of the vulnerable sites from 26.12.2022 to 02.01.2023. After the completion of drilling operations for release of payment to third party agency concurrence letter also sent to district administration vide reference letter cited (6).

In this regard M/S. STRUCTWELL structural consultancy has completed the work and raised a bill of charges for an amount of Rs.4, 20,376 (Rupees Four Lakhs twenty thousand three hundred and seventy six only) towards drilling operations.

It is informed that the payment received of Rs.15.93 lakhs (Rupees Fifteen Lakhs Ninety three thousand only) for the work inclusive of arrangement of third party agency for drilling works, as per the direction of the Collector, Nilgiris vide reference 4.

In this regard as per reference 7, it is requested to give permission towards release the payment of Rs.4, 20,376 (Rupees Four Lakhs twenty thousand three hundred and seventy six only) for M/S. STRUCTWELL structural consultancy, Coimbatore towards drilling operations.

. Ryhw 24. 1. 23

Professor of Civil Engineering (soils) and HOD

Permitted to disburse Rs 4, 20, 376/to M/S. STRUCTWELL Structural consultancy =
as per the reference letter ReDM/42/2021
dated 23.01.2023 from District collector,
Nilgris.

P. The 24/01/23



#17, K.S.Arunachalam Street K.K.Pudur (Post) Saibaba Colony Coimbatore-641 038

2: +91-422 - 2433244

≥ structwell@gmail.com

Inv. No: SWB 04/2022-23

Date: 05-01-2023

To,

The Principal, Government College of Technology, Coimbatore – 641 013

GSTIN: 33AAALG6830C1ZM

INVOICE TOWARDS PROFESSIONAL CHARGES

S.No	SAC Code	Description	Unit	Rate	Qty	Amount (INR)
1	998346	Professional charges Newattuboil and Gadistrict. First and Final Bill				
		Bore Hole – 01	1 No.	38,750.00	1 No.	38,750.00
		Bore Hole – 02	1 No.	63,500.00	1 No.	63,500.00
		Bore Hole – 03	1 No.	51,250.00	1 No.	51,250.00
		Bore Hole – 04	1 No.	51,250.00	1 No.	51,250.00
n		Bore Hole – 05	1 No.	57,500.00	1 No.	57,500.00

GST Registration No: 33AXWPK8257G1ZW PAN No: AXWPK8257G



#17, K.S.Arunachalam Street K.K.Pudur (Post) Saibaba Colony Coimbatore-641 038

2: +91-422 - 2433244

≥ structwell@gmail.com

		Bore Hole – 06	1 No.	59,000.00	1 No.	59,000.00
2	998346	Geophysical Survey by Electrical Resistivity method	1 No	7,000.00	5 Nos	35,000.00
				Ş	SGST @ 9%	32,063.00
					CGST@ 9%	32,063.00
					Total	4,20,376.00

(Rupees Four Lakhs Twenty Thousand Three Hundred Seventy Six only)

Thanking You,

For Structwell, (B.Kamaraj)

PAN No: AXWPK8257G



தமிழ்நாடு तमिलनाडु TAMILNADU ஆடிஆண் PRINCIPLE CACT DE 074711

STAMP VENDOR

126-A, Ramalinga Colony,
MEMORANDUM OF UNDERSTANDIA COMMUNICOR - 43

DETWEEN L No: 7333/81/97F3

YAAZH XENOMICS, COIMBATORE
AND
GOVERNMENT COLLEGE OF TECHNOLOGY, COIMBATORE

This Memorandum of Understanding (hereinafter called as the 'MoU') is entered into on this 25th day of the Month AUGUST of 2023 between Yaazh Xenomics, Coimbatore and Department of Industrial Biotechnology, Government College of Technology, Coimbatore. The First Party represented by its Director herein after called the Yaazh Xenomics. The Second party represented by its Principal herein after called the GCT.

A) First Party is a laboratory named: Yaazh Xenomics is an innovative leader in providing Genomics & DNA Sequencing Service and making groundbreaking advancements with comprehensive genomic solutions engineered to meet the diverse research needs of taxonomists and healthcare services.

Principal

Government College of Technology Coimbatore -641 013.

- B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.
- C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill based training, education, placement, industrial visit, expert lecture.
- D) The Second Party GCT is a higher educational institution.

NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

CLAUSE 1

CO-OPERATION

- 1.1 Both Parties are united by common interests and objectives, and they shall establish co-operation.
- 1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities.
- 1.3 The parties shall co-operate with each other and shall as promptly as is responsibly practical, relevant agreement.

CLAUSE 2

SCOPE OF THE MoU

- 2.1 Industrial Training & Visits: Industry and Institution interaction will provide an insight into the latest developments / requirements of the industries; the first party to permit the faculty and students of the Second Party to visit its facility and also involve in Industrial Training Programs for the Second Party. This will provide confidence & smooth transition for students work. Also the first party may register on the AICTE Internship Portal for the benefit of students.
- 2.2 Guest Lectures: First Party to extend the necessary support to deliver guest lecturers to the students of the second party on the technology trends and in house requirements. It will also promote collaborative research works.
- 2.3 Placement of trained students: First party will actively engage to help the delivery of the training and placement of the students of the first party on the technology trends and in house requirements.

A. Dmi

Government College of Technology

Coimbatore -641 013.

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- 2.3 Placement of trained students: First party will actively engage to help the delivery of the training and placement of the students of the first party on the technology trends and in house requirements.

A. Dmi

Government College of Technology

Coimbatore -641 013.

- 2.4 There is no financial commitment on the part of the GCT, the second party to take up any program mention in MoU. If there is any financial consideration, it will be dealt separately.
- 2.5 Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required.

CLAUSE 3

VALIDITY

3.1 This Agreement will be valid until it is expressly terminated by either Party on mutually agreed terms. Either institution may terminate the MoU by giving a written notice to the other, three months in advance.

CLAUSE 4

RELATIONSHIP BETWEEN THE PARTIES

4.1 It is expressly agreed that First Party and Second Party are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership.

First Party

Yaazh Xenomics,

Module No. 103,

TICEL BIOPARK Phase - III,

Maruthamalai Road, Coimbatore - 641046.

Second Party

Government College of Technology Coimbatore -641 013. Government College of Technology

Thadagam Road, Coimbatore



CERTIFICATE OF TRAINING

This is to certify that

Mr/Ms/Dr Kanishka K (2019128) of

Government College of Technology

has participated a short-term course on

Molecular Biology and Genomics techniques

10.07.2023 to09.08.2023

Co-ordinator Signature

Research Head Signature



தமிழ்நாடு तमिलनाड् TAMIL NADU PRINCIPLE ACT 1-3.2023

11AC 406193

11 1.1 11

I. MARY EVANGELIN REBA STAMP VENDOR 126-A. Ramalinga Colony. M.T.P. Road, Coimbatore - 43 L No: 7333/B1/97F3

TRIPARTITE AGREEMENT BETWEEN

GOVERNMENT COLLEGE OF TECHNOLOGY, COIMBATORE BEST ENGINEERS PUMPS (INDIA) PRIVATE LIMITED

JAGANATHAN LEELAKRISHNAN

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MoU") was made on 3rd March 2023 by and between

1. Department of Electronics and Instrumentation Engineering, GOVERNMENT COLLEGE OF TECHNOLOGY (GCT), Thadagam Road, Coimbatore - 641013 represented by The Principal, GCT, Coimbatore (hereinafter referred to as the "The Party of First Part" which term shall mean and includes, legal representatives, executors, successors, assigns etc.,)

- M/S. BEST ENGINEERS PUMPS (INDIA) PVT LIMITED, having its registered office at 59-B, Thadagam Road, Velandipalayam, Coimbatore – 641 025 represented by its Managing Director Dr. C. G. SRIPRIYA, (hereinafter referred to as the "The Party of Second Part" which term shall mean and includes, legal representatives, executors, successors, assigns etc.,).
- 3. JAGANATHAN LEELA KRISHNAN, (Director, Renuka Industries, Coimbatore) residing at No 49-A, Ambika Layout, New Siddhapudur, Coimbatore 641 044 (hereinafter referred to as the "The Party of Third Part" which term shall mean and includes, Legal Heirs, legal representatives, executors, successors, assigns etc.,)

PREAMBLE

This MOU is executed with the intention of working in collaboration for research and development, Innovation, building up of Patented Products, producing proto-types and related activities in the Field of Engineering. The Parties have common scientific and research interests and will cooperate in performing the activities stated below.

The broad terms of this MoU would be as under

Areas of Collaboration

The Party of Third part being associated with the Engineering Business for 25 years is envisioned to share his knowledge and Lesson Learned in the field to work in association with the Students (Considered eligible and interested) of the Party of First Part for the development of New Ideas and Innovative Products, to Produce Proto-types and other working models of Engineering Products.

The Party of the First Part and the Party of the Second Part agree to share their place of Operations to establish the purpose of this MoU.

The Product so developed shall be Patented in the Joint Name of the

- Project Lead /Students involved in the development of products/ideas (Representing the party of the First Part)
- 2. The Party of Second Part
- 3. The Party of Third Part

Each of the three parties, unless an agreement to the contrary is in force, be entitled to an equal undivided share in the Patent. The Patent such registered shall be utilized by the party of Second Part for Producing in Mass Quantity the products developed under this MoU and in return for the usage of the rights belonging to the project Lead / Students, the Party of Second Part shall award the Students of the Party of First Part with Grant / Scholarship / Sponsorship considered good and agreed between the Parties.

The Cost of registering the Patents will be borne by the Party of Second Part.

Confidentiality

All Three Parties to MoU will exercise the utmost care to preserve the confidentiality of all the relevant matters arising out of the joint efforts.

Renewal, Termination and Amendment

This MoU becomes effective on the date of signature. It may be amended by mutual agreement of the parties. It is renewed every three years without change on that date unless one party gives notice otherwise, six months in advance.

Indemnity

The Party of First Part and the Party of Second Part shall be mutually liable to set right any damage or loss suffered by either of the parties or the Party of Third Part in connection with the execution of any activities under this MOA.

GENERAL

If a dispute arises under this MOU, the Parties agree to make a good-faith effort to resolve any differences amicably.

In the event any provision of this MOU is determined to be invalid or unenforceable under any controlling law, the invalidity or unenforceability of that provision shall not in any way affect the validity or enforceability of the remaining provisions of this MOU.

This MOU shall not be assignable by either Party, in whole or in part, without the prior written consent of the other Party.

It is understood and agreed that neither Party to this MoU shall be liable for any negligent or wrongful acts, either of commission or omission, chargeable to the other unless such liability is imposed by law and that this MoU shall not be construed as seeking to either enlarge or diminish any obligation or duty owed by one Party against the other or third parties.

This instrument contains the entire agreement between the parties and no statements, promises or inducements made by either Party or agent of either Party that are not contained in this written MoU shall be valid or binding; and this MoU may not be enlarged, modified or altered except in writing, signed by the Parties.

Any dispute or difference arising between the parties hereto concerning the affairs of any operations carried on under this agreement or regarding the construction of any clause hereof to the rights, duties and obligations of the parties hereto shall be mutually settled between the parties.

IN MITNECO MUEDEOE 45 and bear bound the Assessed to be

FOR THE PARTY OF FIRST PART

FOR THE PARTY OF SECOND PART

(Dr.K.MANONMANI)

The Principal

Government College of Technology

Coimbatore - 641013

C. L. hipriga

(Dr. C. G. SRIPRIYA)
Managing Director
M/S. BEST ENGINEERS PUMPS PVT
LTD. Coimbatore- 641025



FOR THE PARTY OF THIRD PART

JAGANATHAN LEELAKRISHNAN,

Director, Renuka Industries Coimbatore – 641044

Witness 1

Signature:

Name: Dr. V. PRASANNA MOORTHY

PROFESSOR OF EEE, HOD, DEPT OF EIE, GCT, COIMBATORE Witness 1

Signature:

Name: Mr. C. MARIMUTHU

ASSISTANT PROFESSOR

(SR. GRADE), DEPT OF EIE, GCT, COIMBATORE



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STAMP VENDOR. 16/1, Lingappa Chetty Lane COIMBATORE, TAMILNAD Licence No: 7333/81/97

Memorandum of Understanding

Between

Government College of Technology

M/s. Armour Steel Buildings India Private Limited

This memorandum of Understanding (MoU), executed at Coimbatore this 6th Day of June 2023 between M/s. Armour Steel Buildings India Private Limited, an MSME Private Limited Company having its Factory at 4-256, 5th Mile, Chinthamaniyur Post, Mettur Taluk, Salem Dt. - 636 455 and its Registered office at IInd Floor, CEBACA Tower, No.21, Mani School Teachers Layout, NavaIndia, Coimbatore-641004 (Hereafter referred to as ASBIPL), represented by Mr. S.K. Periyasamy, Managing Director

AND

Government Collage of Technology, Coimbatore - 641013 (Hereafter referred to as GCT) represented by Dr. P. Manonmani, The Principal.

WHEREAS,

- ASBIPL is one of India's fastest growing steel buildings Solutions company. Founded in 1994 as steel construction company. We have built/erected more than 700 user satisfied projects for renowned industrial houses all over south India in the Past 26 years. ASBIPL steel offers a complete range of world-Class steel buildings solutions and products like, coated roofing panels and purlins and Decking Sheets for the Industrial and commercial sectors.
- GCT is a reputed institution which offers many Engineering courses in various disciplines.
- Pursuant to the Various meetings held, the parties have mutually agreed to bring the familiarization of current practices to the selected students of GCT.

NOW THIS MOU WITNESSETH AS FOLLOWS:

The parities have mutually agrees as follows:

- GCT and ASBIPL, also agree to carry out the following on mutually acceptable terms and conditions:
 - Industrial visits to the factory of ASBIPL. Date of Visit and the batch size will be decided well in advance by mutual consultation
 - Guest lectures by experts of ASBIPL.
 - Joint Seminars/Workshops/Conferences
 - Joint Research Projects
 - Joint consultancy works
 - Value added Training for HR Development
 - PhD scholars of GCT taking their research in ASBIPL facility.
 - Any other interaction on Mutually agreed terms
- In turn, GCT has to extend the facilities available in the campus for organizing the technology upgrading program like Seminar, Workshop and Technical Lectures.
- ASBIPL allows the Post Graduate (Structural Engineering & Geotechnical Engineering) students to undertake project works in their company.
- ASBIPL is also ready to provide research facilities for the research scholars in the factory as and when required.

This MOU shall be valid for a period of Five years from the date of first herein above mentioned and shall be reviewed by both the parties for scope of work and progress made on an annual basis.

In witness whereof, the parties to this memorandum of Understanding have affixed their signatures on the day, month, year first mentioned above.

For Government collage of Technology

Coimbatore

Government College of Technology: Dr. P. Mannomani - 641013

Principal

Date

Reher 6.6.23

Dr. R. THENMOZHI PCE, GCT, CBE-13

Witness 2

Dr. R. THENMOZHI, Ph.D., Head of the Department
Department of Civil Engineering
Government College of Technology
Colmbatore - 641 013.

06 06/23

P. NIRMAL Assistant Professor Dept of Civil Engg (Structures)
Govt. College of Technology Coimbatore - 641 013

For Armour Steel Buildings India

For ARMO Private Limited, Coimbatore ITD

Kimms 16.03 Signature Managing Director

Mr. S.K. Periyasamy

Managing Director

Date

Witness 1 June (L. RAMESH)

22. Annawagor

SBI MainRoad

Secranaire a palayam

Witness 2 Coimbare - byroog

S. Bara kumon 28/10, Avallia Aport Ramnaga (be -641009



5-2013 The principal Government (S. AMANDARY)

College of Technology STAMP VENDO

Coll

STAMP VENDOR, 2002, 16/1, Lingappa Chetty Lane No. 2, COIMBATORE, TAMILNADU, Licence No. 7333/81/97/211

Memorandum of Understanding

Between

Government College of Technology

&

Hitech Concrete Solutions Chennai Pvt. Ltd.

This Memorandum of Understanding (MoU), executed at Coimbatore this 6th day of June 2023 between Hitech Concrete Solutions Chennai Pvt Ltd., Chennai having its Laboratory at 64, Galaxy Road, Ponniyamman Nagar, Ayanambakkam, Chennai-600 095 (hereafter referred to as HCSCPL) represented by Dr. V. Rajendran, Director

AND

Government College of Technology, Coimbatore- 641 013 (hereinafter referred to as GCT) represented by Dr. K. Manonmani, The Principal. WHEREAS,

- HCSCPL has been formed as a consulting company specialized in providing solutions to the various concreting issues through in-situ and laboratory testing. Its founders are structural engineers who have more than 35 years of experience in the various Non-destructive testing techniques as well as in Concrete technology. HCSCPL is offering solutions to the construction industry in the areas of Concrete Technology and Non Destructive Testing for quality related issues. The Laboratory is established in top quality and spacious office space in the Ayanambakkam Industrial Estate in Chennai.
 - GCT is a reputed institution, which offers many Engineering Courses in various disciplines. Pursuant to the various meetings held, the parties have mutually agreed to bring the familiarization of the current practices to the selected students of GCT.
 - NOW THIS MOU WITNESSETH AS FOLLOWS:

The parties have mutually agreed as follows:

- 1. GCT and HCSCPL agreed to carry out the following on mutually acceptable terms and conditions:
 - Industrial visits to the Laboratory of HCSCPL
 - Date of visit and the batch size will be decided well in advance by mutual consultations
 - Guest Lectures by experts of HCSCPL
 - Joint seminars/workshops/conferences
 - Joint Research Projects
 - Joint Consultancy Works
 - PhD scholars of GCT pursuing their research in HCSCPL facility
 - Any other interaction on Mutually agreed terms

- 2. In turn, GCT has to extend the facilities available in the campus for organizing the technology up gradation programmes like seminars, workshops and technical lectures.
- 3. HCSCPL will allow the Post Graduate Structural Engineering students to undertake project works in their company.
- 4. HCSCPL is also ready to provide research facilities for the research scholars in their Laboratory as and when required.

This MOU shall be valid for a period of Five years from the date first herein above mentioned and shall be reviewed by both the parties for scope of work and progress made on an annual basis. In witness whereof, the parties to this Memorandum of Understanding have affixed their Signatures on the day, month, year, first mentioned above.

For

Government College of Technology,

Coimbatore.

Dr. Ker Vianormana of Technology Coimbatore -641 013.

Principal

: 06.06.25 Date

Witness 1

Dr. R. THENMOZHI, M.E., Ph.D., Signature: **Professor of Civil Engineering** Government College of Technology

Name Coimbatore - 641 013

: 06.06.23 Date

Witness 2

Signature

Name : P. ANDAVAR

Date

Assistant Professor in Civil Engineering Government College of Technology Colmbatore - 641 013

For

Hitech Concrete Solutions Chennai

Pvt. Ltd., Chennai

Signature

Dr. V. Rajendran

Director

. 6.06.23 Date

Witness 1

Signature: C

Name

Date : 06.06.23

Witness 2

Signature: John

Name

Date