



BHARAT

INSTITUTE OF ENGINEERING AND TECHNOLOGY


NAAC Accredited, NBA Accredited for UG Programmes: CSE, ECE
Approved by AICTE, New Delhi, Affiliated to JNTUH

2015-16

3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year.

S.No	Name of the Organisation	No. of Activities	Nature of Activity
1.	Kumamoto University, Japan	01	Research Project
2.	Research Center Imarat , DRDO	01	Research Project
3	Defense Research and Development Laboratory	05	Research Project
4	Bharat Sanchar Nigam Ltd.	01	Research Project
5	Bharat Electronics Limited	01	Research Project
6	Bharat Dyanamics Limited	02	Research Project
7	Central Institute of Plastic Engineering & Technology	01	Training
8	Reference Globe	01	Research Project
9	Electronics Corporation of India Limited	05	Research Project
10	South Central Railway	02	Internship
11	CoCubes Technologies Pvt. Ltd	01	Internship
	Total Activities	22	




Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

Memorandum of Cooperation

WHEREAS, Professor SUBIR KUMAR CHAUDHURI, Distinguished Professor, Department of Electrical and Electronics Engineering, Bharat Institute of Engineering and Technology, India and Professor SHUICHI TORII, Department of Mechanical Systems Engineering, Kumamoto University, Japan have come together to cooperate on the following activities:

a) JOINT RESEARCH:

Prof. SUBIR KUMAR CHAUDHURI and his team of researchers from Bharat Institute of Engineering and Technology shall collaborate with Professor SHUICHI TORII's Laboratory for research and development projects and shall jointly apply for grants from funding agencies to design and develop new technology or product essential for market.

b) JOINT EVENTS:

Prof. SUBIR KUMAR CHAUDHURI and his team of researchers from Bharat Institute of Engineering and Technology and Professor SHUICHI TORII's Laboratory shall jointly organize technical events like Symposium, Conference, Workshop, and Guest Lectures on regular basis to create a platform for discussions where academic and industry experts from India and Japan can exchange their ideas and join hands for collaborative research.

c) JOINT PUBLICATIONS:

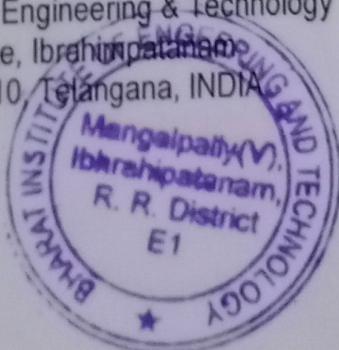
Prof. SUBIR KUMAR CHAUDHURI and his team of researchers from Bharat Institute of Engineering and Technology shall jointly publish research papers with faculty and researchers of Professor SHUICHI TORII's Laboratory in International Journals and Conference Proceedings.

Also, the intellectual property including patents and undisclosed information shall be jointly-published by both the parties based on contribution from each side in order to ensure good collaboration.

By _____

Prof. G. Kumaraswamy Rao
Director R&D

Bharat Institute of Engineering & Technology
Mangalpally Village, Ibrahimpatanam
Hyderabad 501-510, Telangana, INDIA



By _____

Prof. Shuichi TORII

Professor,
Department of Mechanical Systems Engineering
Kumamoto University
2-39-1 Kurokami, Chuo-ku,
Kumamoto 860-8555, JAPAN

Place: Hyderabad, INDIA
Date: 21-June-2016



Report on the Project Collaboration on Remote Sensing and Geographical Information System (GIS) Organized by Dr. Raju Aedla, Visiting Researcher, Kumamoto University, Japan

Electrical & Electronics Engineering Department, Dr. Raju Aedla, Visiting Researcher, Kumamoto University, Japan visited Bharat Institute of Engineering and Technology on 6th June 2016 to initiate MOU and also delivered a Guest Lecture on "Remote Sensing and Geographical Information System". Organized by EEE Department.



Guest Lecture on "Remote Sensing and Geographical Information System"

1. Introduction

Project Title: Remote Sensing and Geographical Information System (GIS)

Organized by: Dr. Raju Aedla, Visiting Researcher, Kumamoto University, Japan

Objective: The project aimed to introduce students to the fields of **Remote Sensing (RS)** and **Geographical Information System (GIS)**, providing hands-on experience with the latest technologies used in analyzing and interpreting geographical data. The project was organized by **Dr. Raju Aedla**, a visiting researcher at **Kumamoto University**, Japan, and focused on equipping students with practical skills in using remote sensing techniques and GIS tools to solve real-world problems related to land use, urban planning, environmental monitoring, and disaster management.

The project also aimed to enhance the students' understanding of how geospatial data is collected, processed, analyzed, and visualized for decision-making in various fields, including environmental science, agriculture, urban development, and resource management.



2. Project Overview

The project provided students with an in-depth understanding of **Remote Sensing** and **Geographical Information Systems (GIS)**, emphasizing their applications in various fields. The project was structured to provide both theoretical knowledge and practical experience. Students were exposed to satellite-based data collection, the use of GIS software for spatial analysis, and the creation of interactive maps for decision-making.

Key Focus Areas:

- **Introduction to Remote Sensing (RS):** Understanding how remote sensing technologies capture data about the Earth's surface using satellites and airborne sensors.
 - **Geographical Information System (GIS):** Introduction to GIS tools and techniques for storing, analyzing, and visualizing geospatial data.
 - **Applications of RS and GIS:** Exploration of the various applications of remote sensing and GIS in environmental monitoring, land-use planning, disaster management, and urban planning.
 - **Hands-on Training:** Practical sessions where students learned how to work with remote sensing data and GIS software, such as **ArcGIS**, **QGIS**, and other spatial analysis tools.
-

3. Project Details and Execution

Day 1: Introduction to Remote Sensing and GIS

On the first day of the project, Dr. Raju Aedla provided an introductory session on **Remote Sensing (RS)** and **Geographical Information Systems (GIS)**. The session covered:

Session 1: Remote Sensing Concepts

- **Definition and Principles of Remote Sensing:** Students learned about the fundamental principles of remote sensing, including how satellites and sensors capture data from the Earth's surface.
- **Types of Remote Sensing:** The session included an overview of different types of remote sensing systems, including **active vs. passive remote sensing**, **optical** and **radar imagery**, and their respective uses.
- **Sensors and Platforms:** An introduction to various types of sensors (optical, infrared, and radar) and platforms (satellites, UAVs, and aircraft) used in remote sensing.
- **Data Acquisition:** Students were introduced to how remote sensing data is captured, focusing on the **electromagnetic spectrum** and the different types of data (multispectral, hyperspectral, etc.).

Session 2: Introduction to GIS



- **What is GIS?:** Dr. Aedla introduced the concept of **Geographical Information System (GIS)**, explaining its role in mapping, analyzing, and interpreting geographical data.
- **Components of GIS:** The session focused on the four key components of GIS—**hardware, software, data, and users**—and how they work together to create effective spatial analysis tools.
- **GIS Software:** Students were introduced to popular GIS software tools like **ArcGIS** and **QGIS**, which are commonly used in the industry for spatial analysis and data visualization.

Day 2: Applications and Hands-on Training

On the second day, students received hands-on training in both remote sensing and GIS tools, where they explored real-world applications of these technologies:

Session 3: Applications of Remote Sensing and GIS

- **Environmental Monitoring:** The session focused on how remote sensing and GIS can be used to monitor environmental changes, such as deforestation, soil erosion, and land degradation.
- **Urban Planning and Land Use:** Students learned how GIS is used in urban planning for land-use analysis, zoning, and infrastructure development. Remote sensing was demonstrated for land cover classification, helping planners make informed decisions about land use.
- **Disaster Management:** The role of remote sensing and GIS in disaster management was discussed, with examples of how these technologies have been used to monitor and assess natural disasters like floods, hurricanes, and earthquakes.

Session 4: Hands-on Training with GIS Software

- **Working with Satellite Data:** Students were given access to **satellite imagery** and tasked with analyzing the data using **QGIS** and **ArcGIS** software. They learned how to interpret satellite images and extract meaningful data about land use and vegetation.
- **Spatial Analysis Techniques:** The students performed basic spatial analyses using GIS software, such as **buffer analysis**, **overlay analysis**, and **network analysis**. These techniques help in understanding relationships between geographical features and making decisions based on spatial data.
- **Map Creation:** Students created thematic maps by visualizing their spatial data. This included the use of color coding to represent different land types, elevation levels, or vegetation coverage.

The session emphasized the use of geospatial data for **decision-making** and **problem-solving**, enabling students to apply GIS techniques to solve complex geographical problems.

4. Key Learnings and Outcomes



By the end of the project, students had developed several important skills and gained insights into the application of **Remote Sensing** and **GIS**:

- **Understanding Remote Sensing Principles:** Students gained a strong understanding of how remote sensing works and how different types of sensors and platforms are used to collect geospatial data.
 - **Familiarity with GIS Tools:** Participants learned how to use popular GIS software like **ArcGIS** and **QGIS** to analyze spatial data and create interactive maps.
 - **Real-World Applications:** The project provided students with knowledge of the various real-world applications of remote sensing and GIS, including environmental monitoring, urban planning, disaster management, and agriculture.
 - **Practical Experience:** Students gained hands-on experience working with satellite imagery, performing spatial analysis, and creating maps to solve geographical problems.
 - **Problem-Solving Skills:** The project encouraged critical thinking and problem-solving skills, as students used GIS and remote sensing tools to answer practical questions related to land use, environmental change, and disaster response.
-

5. Conclusion

The **Remote Sensing and GIS** project, organized by **Dr. Raju Aedla**, Visiting Researcher at **Kumamoto University**, Japan, provided students with a comprehensive understanding of the powerful tools used for analyzing and interpreting geographical data. The project successfully bridged the gap between theory and practice, giving students hands-on experience with both remote sensing data collection and GIS-based spatial analysis.

The knowledge and skills acquired during this project are highly relevant in today's world, where geospatial data plays a critical role in solving global challenges such as environmental degradation, urbanization, and disaster management. The exposure to advanced tools like **QGIS** and **ArcGIS** and the application of these tools in real-world scenarios have equipped the students with the skills needed for future careers in geography, urban planning, environmental science, and related fields.

Overall, the project was a valuable learning experience, fostering a deeper appreciation for the importance of geospatial technologies in addressing complex global challenges.

BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, Accredited by NAAC and Accredited by NBA : UG Programmes - CSE, ECE, EEE & Mechanical
Recognised by the Govt. of T.S. and Affiliated to JNTUH, Hyderabad.)

Sponsored by : CHINTA REDDY MADHUSUDHAN REDDY EDUCATIONAL SOCIETY

Mangalpally (Village), Ibrahimpatnam (Mandal), Ranga Reddy District - 501 510, Telangana. Tel : 08414 - 252399

Ref.:

BIET/2015

Date: 22/05/2015

To;
The Manager
DRDO(RCI)
Hyderabad

Subject: Request for Consent of Student Project Work in the esteemed organization.

Dear Sir,

I hope this letter finds you in good health and high spirits. I am writing on behalf of Bharat Institute of Engineering & Technology to request your esteemed organization's support in providing our students with an opportunity to undertake project work under your guidance.

As part of our academic curriculum, our students are required to gain hands-on experience through industry-oriented projects that enhance their practical knowledge and prepare them for professional challenges. We believe that your organization, being a leader in relevant industry or domain, would provide an excellent platform for our students to apply their theoretical learning to real-world scenarios.

We would be grateful if you could accommodate a group of our students for project/internship work for around 3 or 4 months. We assure you that our students are highly motivated and eager to contribute meaningfully under the supervision of your experts. Additionally, we are open to discussing specific project requirements and any other formalities necessary for a smooth collaboration.

We look forward to a positive response and a fruitful association with your organization. Please let us know a convenient time for further discussions on this matter.

Thank you for your time and consideration.

Yours sincerely,

Vattikonda Babu

Principal
BIET Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



भारतीय गैर न्यायिक

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ONE
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INDIA NON JUDICIAL

आन्ध्र प्रदेश ANDHRA PRADESH

Date: 06-12-2007 Serial No: 5,075

Denomination: 100

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For Whom :

CHAIRMAN IDST, C/O DLRL, HYD.

MEMORANDUM OF UNDERSTANDING

Between

INSTITUTE OF DEFENCE SCIENTISTS & TECHNOLOGISTS C/O, DLRL,
CGLINES, HYDERABAD- 500005 (hereinafter called IDST).

and

BHARAT INSTITUTE OF ENGINEERING TECHNOLOGY, MANGALPALLY,
IBRAHIMPATNAM, R.R.DIST - 501 510 (hereinafter called B.I.E.T)

1. PREAMBLE

Where as IDST is a society of Retired Defence Scientists (Regd No.S/4 5222 of 2003 registered at New Delhi) formed to extend support to DRDO organization on the ongoing scientific and technical projects. It is formed to tap the vast experience and knowledge acquired by the scientists during the course of their service.

Where as B.I.E.T is an accredited engineering institution by NBA, New Delhi engaged in imparting quality education to B.Tech and M.Tech students possessing excellent facilities for Research. B.I.E.T also has experienced faculty well versed in R&D activities.

Where as IDST described the scope of work to BIET and BIET has agreed for the bilateral co-operation for the said research work.

RLO

M. J.

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2.SCOPE OF MOU

IDST and B.I.E.T proposed bilateral co-operation in carrying out research work by undertaking a research project sanctioned to IDST by a DRDO Lab. The project envisages investigation on TIME and FREQUENCY DIFFERENCE OF ARRIVAL BASED GEO LOCATION TECHNIQUE FOR COMMUNICATION SIGNAL EMITTERS. The work involves mainly simulation and modeling using software like MATLAB,C,C++ etc.

Details of work and division of responsibilities are given in Annexure to this M.O.U.

3.DURATION OF THE PROJECT

The duration of the project is one year starting from the date of signing this MOU. The project PDC is 1st Feb 2009.

4.OPERATION AND EXECUTION OF PROJECT

Sri. G. Nagendra Rao, Retd. Scientist and Former Head of Communication Directorate at Defence Electronics Research Laboratory (DLRL) is the representative of the Institute of Defence Scientists and Technologists for execution of this project.

Prof. G. Kumaraswamy Rao and his team will represent B.I.E.T and responsible for the execution of the work.

5.FINANCIAL ARRANGEMENT

An amount of Rs. 2,50,000 (Rupees two lakhs fifty thousand only) towards technical services for this project will be paid to B.I.E.T by IDST in four installments with the payment terms as given below. The release of payments (ii), (iii), (iv) are subject to acceptance by IDST.

- (i) 25 % Advance within two months of signing MOU
- (ii) 30 % After completion of first stage viz., Time & Frequency Difference of arrival algorithm, processing
- (iii) 30 % After completion of second stage viz., Location Fix algorithm, processing
- (iv) 15 % After completion of third stage viz., conclusion of the project

The problems of financing during the project should be solved upon mutual agreement.

RIDC

127

6. RESPONSIBILITIES

Scope, division of work and responsibilities are included in annexure to this MOU.

Incase of representatives of IDST and B.I.E.T leave the organization, the Head of IDST and B.I.E.T can nominate the successors, on mutual consent.

Incase B.I.E.T desires to publish a part or full work in national/foreign journal, it should seek permission from DLRL through IDST. If objection is not received by B.I.E.T within 60 days of the request, B.I.E.T is free to publish the work.


The right to terminate the project will rest with both parties on mutual consent

7. ARBITRATION

All disputes arising out during the execution of this contract will be solved by mutual agreement. In case the disputes are not resolved the decision of the Chairman, IDST, Hyderabad branch will be final.

In witness whereof, IDST and B.I.E.T has executed this MOU as of the day and year set forth below.


Agreed by
B.I.E.T


Principal B.I.E.T
Mangalpally,
Ibrahimpattanam
R.R. Dist - 501 510
Date: 13-2-08

Witnesses:

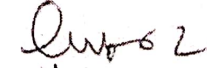
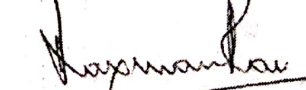
- 1) G. Anandraswamy Rao 13-2-08
- 2) G. Rammohana Reddy 13-2-08

Agreed by
IDST


Chairman IDST
DLRL Campus, C G Lines
Hyderabad -500 005

Date: 13.2.08

Witnesses:

- 1) 
- 2) 



Institute of Defence Scientists & Technologists
(Reg at New Delhi Under Societies Act XXI of 1860-Reg. No. S/4 5222 of 2003)

Hyderabad Branch

DLRL Campus, Chandrayanagutta,
Hyderabad – 500 005

Telefax: 040 – 24440375

E-mail: idst_hyd2008@yahoo.co.in

Date : 05 Nov, 2015

PATRON

SA to RM & DG (R&D)
DRDO

PRESIDENT

Sri A.K. Chakrabarti
☎ (040) 29802430 (R)
☎ 9849164521 (M)

HYDERABAD BRANCH

CHAIRMAN

Dr Harihar Singh
☎ (040) 24441310 (O)
☎ 9949032250 (M)

VICE-CHAIRMAN

Dr R.C. Mathur
☎ (040) 24440375 (O)
☎ 9441426510 (M)

harihar2002@yahoo.com

To

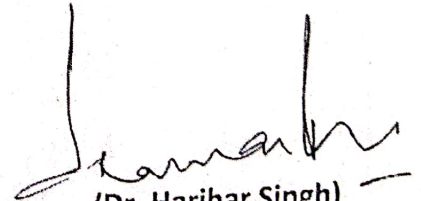
Prof G.Kumaraswamy Rao
BIET, R.R. District
HYDERABAD

Sir,

This has reference to the "Radar EW" course conducted recently by IDST(H) at BEL, Hyderabad premises. I wish to convey my deep gratefulness to you for the following expert lectures delivered by you at M/s Bharat Electronics Limited, Nacharam, Hyderabad. These talks were very well received by the course participants.

- i. Concepts of Radars & LPI Capabilities, Part I & II, on 09th Oct' 2015.
- ii. LPI Radar Vs ES Interceptor, on 17th Oct' 2015.

I would be seeking your continued support and guidance in future also for such endours.


(Dr. Harihar Singh)
Chairman, IDST(H)

Institute of Defence Scientists & Technologists
(Reg at New Delhi Under Societies Act XXI of 1860-Reg. No. S/4 5222 of 2003)

Hyderabad Branch

DLRL Campus, Chandrayanagutta,

Hyderabad - 500 005

Telefax: 040 - 24440375

E-mail: idst_hyd



2008@yahoo.co.in

Our ref No. IDST/HYD/Proj/09-10

Hyderabad
13th Apr 2009

PATRON

Sri. M.Natarajan.

SA to RM & DG (R&D)

DRDO

PRESIDENT

Shri K.Srinivasa

☎ (080) 26636326 (R)

☎ 09972183900 (M)

HYDERABAD BRANCH

CHAIRMAN

Dr. R.L.Saha

☎ (040) 24441310 (O)

☎ (040) 24341346 (R)

☎ 9490173248 (M)

VICE-CHAIRMAN

Smt Ramamani S.Sundaram

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☎ 40369373 (M)

☎ (040) 24440882 (O)

TREASURER

K. Mallikarjuna Rao

☎ (040) 24440882 (O)

☎ (040) 24345118 (R)

☎ 9849545118 (M)

SECRETARY

Cdr (Retd) V.D.Velalkar

☎ (040) 24440375 (O)

☎ (040) 27031559 (R)

☎ 9490808207 (M)

**SUB: GUIDANCE & SUPERVISION OF B. Tech. PROJECTS FOR FINAL YEAR
ENGINEERING STUDENTS**

Dear Prof. Kumaraswamy Rao,

You will be happy to note that IDST Central Council has given its consent to our proposal to extend IDST to services to guide and supervise final year engineering students for projects for the award of B. Tech. Degree. This will facilitate IDST to contribute towards an important facet of engineering education in the country. This will also provide us an opportunity to fulfill a long felt need to highlight DRDO activities and achievements to young engineering graduates and involve many retired scientists(IDST members). into is enclosed main stream activities of IDST. A copy of guidelines for the purpose.

IDST Hyderabad will be approaching various engineering colleges to forward their requirements in respect of projects for final year engineering students for the academic year 2009-2010. IDST in consultation with engineering colleges will work out details regarding disciplines/areas/topics for the project works, number of students they would like to sponsor etc. In light above I request you to give your willingness before 15th May 2009 to undertake above task and provide the updated Bio-data as per the format enclosed. This will help us in creating a pool of scientists for the task before we approach engineering colleges.

I request for your cooperation and active participation to contribute towards quality engineering education in the country. I sincerely hope that you would accord priority for the same.

With warm regards

Encl: 1. Guidelines for IDST

2. Proforma for updated biodata

Yours sincerely

R.L.Saha
(Dr R.L.Saha)

Chairman

To

Sri	G.KUMARASWAMY RAO 9-8-15, Maruthinagar Colony, Opp. New Santoshnagar Colony, Hyderabad-500059 e-mail: rao_gksdlrldrdo@yahoo.co.in
-----	-----------------------------------------------------------------------------------------------------------------------------------------------

CERTIFICATE

This is to certify that the work embodies in this dissertation entitled '**A project on comprehensive Experimental study of EMI-EMC standard and its relevant testing methods for military sub-systems**' being submitted by K. Srividya (13E15A0407) and K. Mounika (12E11A0466) of **Bharat Institute of Engineering and Technology, Ibrahimpatnam**, affiliated to JNTU, Hyderabad (T.S.) for partial fulfillment of the requirement for the award of '**Bachelor of Technology in Electronics and Communication Engineering**', during the academic year **2015-2016** is a record of bonafide piece of work, undertaken by her in the supervision of the undersigned at **EMI-EMC Technology Centre, Research Centre Imarat, Hyderabad**.

Sury Satav

(Sandeep M. Satav)

संदीप एम. सातव / SANDEEP M. SATAV
वैज्ञानिक 'एफ' / Scientist 'F'
प्रधान, ईएमआई-ईएमसी टेक्नोलॉजी सेंटर
Head, EMI-EMC Technology Centre,
अनुसंधान केन्द्र इमारत / Research Centre Imarat
भारत सरकार, रक्षा मंत्रालय, डीआरडीओ
Govt. of India, Min. of Defence, DRDO
विज्ञानकान्चा, हैदराबाद / Vignyanakancha Hyderabad-69.

V.R.
Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



भारतीय गैर न्यायिक

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ONE
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For Whom :

CHAIRMAN IDST, C/O DLRL, HYD.

MEMORANDUM OF UNDERSTANDING

Between

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CGLINES, HYDERABAD- 500005 (hereinafter called IDST).

and

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M. J.

1

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The problems of financing during the project should be solved upon mutual agreement.

RIDC

127

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In witness whereof, IDST and B.I.E.T has executed this MOU as of the day and year set forth below.

Agreed by
B.I.E.T

Principal B.I.E.T
Mangalpally,
Ibrahimpattam
R.R. Dist - 501 510
Date: 13-2-08

Witnesses:

- 1) G. Anandraswamy Rao 13-2-08
- 2) G. Rammohana Reddy 13-2-08

Agreed by
IDST

Chairman IDST
DLRL Campus, C G Lines
Hyderabad -500 005

Date: 13.2.08

Witnesses:

- 1) Suresh
- 2) Ramesh

Institute of Defence Scientists & Technologists
(Reg at New Delhi Under Societies Act XXI of 1860-Reg. No. S/4 5222 of 2003)

Hyderabad Branch

DLRL Campus, Chandrayanagutta,

Hyderabad - 500 005

Telefax: 040 - 24440375

E-mail: idst_hyd



2008@yahoo.co.in

Our ref No. IDST/HYD/Proj/09-10

Hyderabad
13th Apr 2009

PATRON

Sri. M.Natarajan.

SA to RM & DG (R&D)

DRDO

PRESIDENT

Shri K.Srinivasa

☎ (080) 26636326 (R)

☎ 09972183900 (M)

HYDERABAD BRANCH

CHAIRMAN

Dr. R.L.Saha

☎ (040) 24441310 (O)

☎ (040) 24341346 (R)

☎ 9490173248 (M)

VICE-CHAIRMAN

Smt Ramamani S.Sundaram

☎ (040) 24078503 (R)

☎ 40369373 (M)

☎ (040) 24440882 (O)

TREASURER

K. Mallikarjuna Rao

☎ (040) 24440882 (O)

☎ (040) 24345118 (R)

☎ 9849545118 (M)

SECRETARY

Cdr (Retd) V.D.Velalkar

☎ (040) 24440375 (O)

☎ (040) 27031559 (R)

☎ 9490808207 (M)

**SUB: GUIDANCE & SUPERVISION OF B. Tech. PROJECTS FOR FINAL YEAR
ENGINEERING STUDENTS**

Dear Prof. Kumaraswamy Rao,

You will be happy to note that IDST Central Council has given its consent to our proposal to extend IDST to services to guide and supervise final year engineering students for projects for the award of B. Tech. Degree. This will facilitate IDST to contribute towards an important facet of engineering education in the country. This will also provide us an opportunity to fulfill a long felt need to highlight DRDO activities and achievements to young engineering graduates and involve many retired scientists(IDST members). into is enclosed main stream activities of IDST. A copy of guidelines for the purpose.

IDST Hyderabad will be approaching various engineering colleges to forward their requirements in respect of projects for final year engineering students for the academic year 2009-2010. IDST in consultation with engineering colleges will work out details regarding disciplines/areas/topics for the project works, number of students they would like to sponsor etc. In light above I request you to give your willingness before 15th May 2009 to undertake above task and provide the updated Bio-data as per the format enclosed. This will help us in creating a pool of scientists for the task before we approach engineering colleges.

I request for your cooperation and active participation to contribute towards quality engineering education in the country. I sincerely hope that you would accord priority for the same.

With warm regards

Encl: 1. Guidelines for IDST

2. Proforma for updated biodata

Yours sincerely

R.L.Saha
(Dr R.L.Saha)

Chairman

To

Sri	G.KUMARASWAMY RAO 9-8-15, Maruthinagar Colony, Opp. New Santoshnagar Colony, Hyderabad-500059 e-mail: rao_gksdlrldrdo@yahoo.co.in
-----	-----------------------------------------------------------------------------------------------------------------------------------------------

BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, Accredited by NAAC and Accredited by NBA : UG Programmes - CSE, ECE, EEE & Mechanical
Recognised by the Govt. of T.S. and Affiliated to JNTUH, Hyderabad.)

Sponsored by : CHINTA REDDY MADHUSUDHAN REDDY EDUCATIONAL SOCIETY

Mangalpally (Village), Ibrahimpatnam (Mandal), Ranga Reddy District - 501 510, Telangana. Tel : 08414 - 252399

Ref.:

BIET/2015

Date: 22/05/2015

To;
The Manager
DRDL
Hyderabad

Subject: Request for Consent of Student Project Work in the esteemed organization.

Dear Sir,

I hope this letter finds you in good health and high spirits. I am writing on behalf of Bharat Institute of Engineering & Technology to request your esteemed organization's support in providing our students with an opportunity to undertake project work under your guidance.

As part of our academic curriculum, our students are required to gain hands-on experience through industry-oriented projects that enhance their practical knowledge and prepare them for professional challenges. We believe that your organization, being a leader in relevant industry or domain, would provide an excellent platform for our students to apply their theoretical learning to real-world scenarios.

We would be grateful if you could accommodate a group of our students for project/internship work for around 3 or 4 months. We assure you that our students are highly motivated and eager to contribute meaningfully under the supervision of your experts. Additionally, we are open to discussing specific project requirements and any other formalities necessary for a smooth collaboration.

We look forward to a positive response and a fruitful association with your organization. Please let us know a convenient time for further discussions on this matter.

Thank you for your time and consideration.

Yours sincerely,

Vattikonda Subu

Principal
BIET Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510





GOVT OF India
Ministry of Defence
DEFENCE RESEARCH & DEV. ORGN.
DEFENCE RESEARCH & DEV.
LABORATORY
PO: KANCHANBAGH
HYDERABAD - 500 058
Ph.040-24583151 Fax No.040-24583154

22nd APRIL 2016

CERTIFICATE

This is to certify that the Project work Titled "A COMPARATIVE STUDY OF WELDING CHARACTERISTICS OF STAINLESS STEEL AISI 321 AND ALUMINIUM ALLOY 65032 USING GTAW" is the bonafide work carried out jointly by the following students of BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY during the period 18th JANUARY 2016 to 18th April 2016 at Defence Research and Development Laboratory (DRDL), Hyderabad.

- 1 AVINASH ENJAPURI (R.NO.12E11A0314)
- 2 HARISH.V (R.NO.12E11A0317)
- 3 P.JOHN BABU (R.NO.12E11A0319)

During the period their conduct was found very good.

P. Bangaru Raju
(Shri P.BANGARU RAJU)
SCIENTIST 'C'
DOLP
Project Guide

P. Bangaru Raju
Scientist
Defence R&D Laboratory
Ministry of Defence
Kanchanbagh, Hyderabad-500058

B. Penchala RAO
(Shri B.PENCHALA RAO)
SCIENTIST 'E'
DOLP

V.M.
Principal
Bharat Institute of Engineering & Technology
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist. Rangareddy) - 501510
B. PENCHALA RAO
SCIENTIST (E)
DEFENCE RESEARCH & DEVELOPMENT LABORATORY
Ministry of Defence
Kanchan Bagh, Hyderabad.



Government of India
Ministry of Defence,
Defence Research & Development Organisation,
DEFENCE RESEARCH & DEVELOPMENT LABORATORY,
PO: KANCHANBAGH, HYDERABAD - 500 058 (INDIA)
Ph: 040-24583189, 9490956829 (M), Fax: 040-24344287

No: DRDL/1600/DOHR/

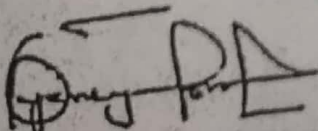
13TH APRIL 2016

CERTIFICATE

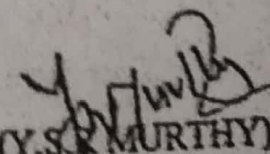
This is to certify that the project work Titled "INVESTIGATING THE MACHINING CHARACTERISTICS OF MILD STEEL USING DIESINKING ELECTRIC DISCHARGE MACHINING BY VARYING CURRENT AND ELECTRODES" is the bonafide work carried out jointly by the following student of BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY during the period 18th FEBRUARY 2016 TO 13TH APRIL 2016 at Defence Research and development and laboratory (DRDL) Hyderabad.

- 1 V.SAI SAKETH CHOWDARY (12E11A0340)
- 2 J.VINAY KUMAR (12E11A0349)
- 3 A.YASWANTH REDDY (12E11A0354)

During the period their conduct was found very good.


(V. ANJANEYA PRASAD)
SCIENTIST 'F'
Project Guide




(Y.S.R. MURTHY)
ADMINISTRATIVE OFFICER
HRDD/DOHR

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Govt. of India
Ministry of Defence
DEFENCE RESEARCH & DEV. ORGN.
DEFENCE RESEARCH & DEV.
LABORATORY
PO: KANCHANBAGH
HYDERABAD - 500 055
Ph.040-24583151 Fax No.040-24583154

200

22nd APRIL 2016

CERTIFICATE

This is to certify that the Project work Titled "ORBITAL WELDING" is the bonafide work carried out jointly by the following students of SHARAT INSTITUTE of ENGINEERING & TECHNOLOGY during the period 29th JANUARY 2016 to 20th April 2016 at Defence Research and Development Laboratory (DRDL), Hyderabad.

- | | | |
|---|------------|--------------|
| 1 | AJAY KUMAR | (12E11A0302) |
| 2 | ANJYA.K | (12E11A0308) |
| 3 | MANVITHA.T | (12E11A0357) |

During the period their conduct was found very good.

V-Venkat
(MR. V. VENKATESHWARLU)
SCIENTIST 'B'
DOLP
PROJECT GUIDE



YSR
Mr. YSR MURTHY
ADMINISTRATIVE OFFICER
HRDD (DOHR)

VLS
Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



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GOVT. OF INDIA
Ministry of Defence
DEFENCE RESEARCH & DEV. ORG.
DEFENCE RESEARCH & DEV.
LABORATORY
PLOT KANAKANAHALLI
HYDERABAD - 500 082
TEL: 040-25511111 FAX No: 240-2401111

Date: 13 April 2016

CERTIFICATE

This is to certify that the Project work titled "OPTIMIZATION OF PROCESS PARAMETERS IN WEDGE OF CRA TECHNIQUE FOR ALUMINIUM BEISWP" is an innovative work carried out jointly by the following students of SHARAT INSTITUTE of ENGINEERING & TECHNOLOGY during the period 28 January 2016 to 31 March 2016 at Defence Research and Development Laboratory (DRDL), Hyderabad.

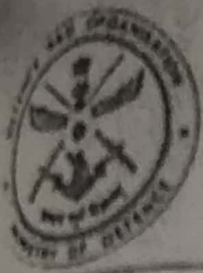
- | | |
|--------------------------|--------------|
| 1. RAKSHAY | (12E11A0305) |
| 2. WAMEL KEDDY | (12E11A0306) |
| 3. BHARSHA VARGHESE GOUD | (12E11A0313) |
| 4. V.SAI KUMAR | (12E11A0342) |

During the period their conduct was found very good.

Dr. Venkateshwarulu
Project Guide
DR. VENKATESHWARULU
Scientist 'D' Head of Tool Room
DRDL, Hyderabad



YSR Murthy
(YSR MURTHY)
ADMINISTRATIVE OFFICER
HRDD(DOHR)



DEFENCE RESEARCH & DEVELOPMENT LABORATORY
Government of India, Ministry of Defence
Kanchanbagh, Hyderabad-500 058

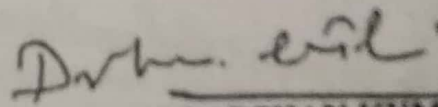
DATE : 25 APRIL 2016

CERTIFICATE

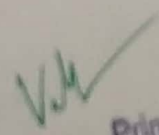
This is to certify that the Project work titled "EXPERIMENTAL FLOW VISULIZATION OF V-GUTTER FLAME HOLDER" is the bonafide work carried out jointly by the following students of BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY, R R DISTRICT during the period 05-02-2016 to 22-03-2016 at Defence Research and Development Laboratory (DRDL), Hyderabad.

1. Mr. SALMAN PATAN (12E11A2101)
2. Mr. CH. SATISH (12E11A2121)
3. Mr. CH. SAI CHARAN (12E11A2124)

During the period their conduct was found very good.


(TRIVEDI DARSHAN KUMAR)
SCIENTIST 'E'
DORP
PROJECT GUIDE




Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam (T)
Ranga Reddy (Dist)-Telangana-501310

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GOVT OF INDIA
Ministry of Defence
DEFENCE RESEARCH & DEV. ORGANIZATION
DEFENCE RESEARCH & DEV. LABORATORY
POST : KANCHANBAGH
HYDERABAD - 500 058 (INDIA)
DATE : 25/04/2016

CERTIFICATE

This is to certify that **Ms. E. HARSHITHA RAO (12E11A0462)** and **Mr. B. SAIKIRANPRASAD (12E11A04B1)**, final year **B. Tech (Electronics & Communication Engineering)** students of **BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY**, have done their project work in **Directorate of Instrumentation, DEFENCE RESEARCH & DEVELOPMENT LABORATORY (DRDL), Hyderabad** during the period from 05-01-2016 to 25-04-2016.

The project work titled **"MICROCONTROLLER BASED ANTENNA POSITIONING SYSTEM FOR MISSILE TRACKING"** is a record of bonafide work carried out by them under our guidance and supervision.

Abhishek Singh Shakya
(Abhishek Singh Shakya)
Scientist - 'D'
Directorate of Instrumentation
DRDL, Hyderabad-58.

External Project Guide
Directorate of Instrumentation
DRDL, Hyderabad

Suchetana Banerjee
(Suchetana Banerjee M.Tech)
Asst. Professor
Internal Project Guide
Bharat Institute of Engg. & Tech.
Ibrahimpatnam, R.R dist-501 510



V.R.
Principal
Bharat Institute of Engg. & Tech
Mangalpally(V), Ibrahimpatnam (V)
Ranga Reddy (Dist)-Telangana-501 510



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Ministry of Defence
DEFENCE RESEARCH & DEV. ORGN.
DEFENCE RESEARCH & DEV.
LABORATORY
PO: KANCHANBAGH
HYDERABAD – 500 058
Ph.040-24583151 Fax No.040-24583154

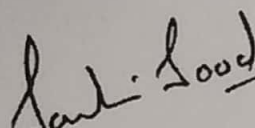
Date: 07 April, 2016

CERTIFICATE

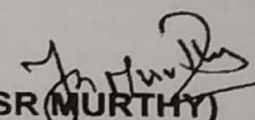
This is to certify that the Project, titled "Implementation of 8-BIT ALU on SPARTAN-3 FPGA using VHDL" submitted by students of BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY, Manglapally, HYDERABAD at Defence Research & Development Laboratory, DRDO, Ministry of Defence, Hyderabad.

- | | |
|------------------------|-------------------|
| 1. AKSHATA SUGANDHI | (R.NO.12E11A0473) |
| 2. SEKURI SWETHA | (R.NO.12E11A0475) |
| 3. ANITHI REDDY SOWMYA | (R.NO.12E11A04B4) |

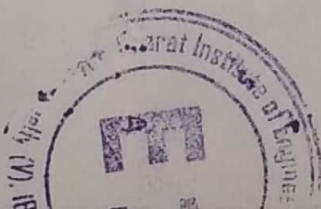
2. During their project period from 13.01.2016 to 31.03.2016, they were found to be sincere & hard working and also took keen interest in the areas allied to their project work.

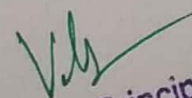

(SACHIN SOOD)
Scientist 'F'
DRDL
Project Guide




(YSR MURTHY)
Administrative Officer
HRDD (DOHR)

SACHIN SOOD
SCIENTIST
MINISTRY OF DEFENCE
R.D.L. HYDERABAD.




Principal
Bharat Institute of Engg. and Tech
Manglapally(V), Ibrahimpatnam(M)
(Dist)-Telangana-501510

r. G. RAJA SINGH THANGADURAI

SCIENTIST 'G'
Dy. PROGRAMME DIRECTOR, PJ -10



212
GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
DEFENCE R&D ORGANISATION
DEFENCE RESEARCH AND
DEVELOPMENT LABORATORY
P.O. Kanchanbagh, Hyderabad - 500 058
T.S., INDIA.

CERTIFICATE

The following students pursuing B.Tech(ECE) Final year in BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY, Ranga Reddy Dist., has successfully completed their project titled "UART Implementation Using VHDL on FPGA" Programme from 04th Jan 2016 to 11th Apr 2016, under my supervision at D.R.D.L., Hyderabad.

Name	Roll No.
Mr. M. Dharma Naik	12E11A0425
Mr. G. Rohit Kumar	12E11A0435
Mr. K. Shoban Babu	12E11A0445

Their Performance and conduct during the period was excellent. Further it is certified that to the best of my knowledge, the matter embodied in this work has not been submitted to any other university or institute for the award of any other degree.

(Dr. G. Raja Singh Thangadurai)

Place : Hyderabad

Date : 25.04.2016



Vall
Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



भारत सरकार, रक्षा मंत्रालय
Government of India, Ministry of Defence

रक्षा अनुसंधान एवं विकास संगठन

DEFENCE RESEARCH & DEVELOPMENT ORGANISATION

रक्षा अनुसंधान एवं विकास प्रयोगशाला

DEFENCE RESEARCH & DEVELOPMENT LABORATORY

कंचनबाग डाक घर, हैदराबाद - 500 058 (भारत)

P.O. : Kanchanbagh, Hyderabad - 500 058. A.P. INDIA

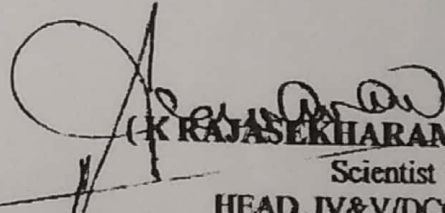
Date: 17 - Mar -2016

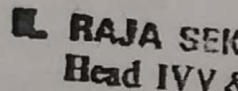
CERTIFICATE

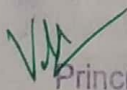
This is to certify that Ms G.KEERTHI PRIYA YADAV student of B.Tech (ECE), IV Year bearing the registered number 12E11A04B7 from Bharat Institute of Engineering and Technology has successfully completed the project work titled "*DESIGN AND DEVELOPMENT OF CONVOLUTION ENCODER AND VITERBI DECODER USING LABVIEW SOFTWARE*" under my supervision and guidance for a period of Three months i.e., from Jan - 2016 to Mar - 2016 in Defense Research & Development Laboratory, Kanchanbagh, Hyderabad.

It is to certify that this report carries a bonafide account of project work carried out under my guidance.




(K RAJASEKHARAM)
Scientist 'F'
HEAD, IV&V/DCCT
DRDL/DRDO


K. RAJA SEKHARAN,
Head IVV & GPS
DOCT, DRDL


Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501009



226
GOVERNMENT OF INDIA
MINISTRY OF DEFENCE
DEFENCE R & D ORGANISATION
DEFENCE RESEARCH & DEVELOPMENT LABORATORY
P.O. : Kanchanbagh, Hyderabad - 500 058 (A.P.) INDIA
Phones : Off : 040-24583593, 24583592,
Fax : 91-040-24583591

DATE: 25TH APRIL 2016

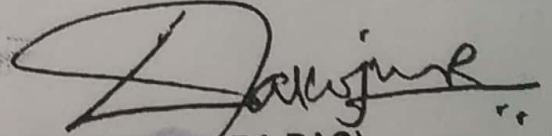
CERTIFICATE

This is to certify that the following students of **BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY (BIET), IBRAHIMPATNAM, R.R.DIST.,** affiliated to Jawaharlal Nehru Technical University, Hyderabad, has undertaken the Project entitled "**GROUND TELEMETRY AND COMMUNICATION SYSTEM**" in Range Systems Division under Directorate Of Instrumentation (DOI) of DRDL, Hyderabad during the academic year 2015-2016 as a part of fulfilment for the award of Bachelor of Engineering (B.Tech.) degree in Electronics & Communication Engineering.

- 1) Mr. J.SURAJ (12E11A04A3)
- 2) Mr.M.PRANEETH (12E11A0489)
- 3) Mr.S.RAHUL (12E11A0493)

The performance of the above mentioned students was satisfactory during the project and the Project has been implemented in the Range Systems Division.




(D.VENKATESWARA RAO)
SCIENTIST 'D'
RANGE SYSTEMS DIVISION
DRDL, HYDERABAD.

VJR

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, Accredited by NAAC and Accredited by NBA : UG Programmes - CSE, ECE, EEE & Mechanical
Recognised by the Govt. of T.S. and Affiliated to JNTUH, Hyderabad.)

Sponsored by : CHINTA REDDY MADHUSUDHAN REDDY EDUCATIONAL SOCIETY

Mangalpally (Village), Ibrahimpatnam (Mandal), Ranga Reddy District - 501 510, Telangana. Tel : 08414 - 252399

Ref.:

BIET/2015

Date: 22/05/2015

To;
The Manager
BSNL
Hyderabad

Subject: Request for Consent of Student Project Work in the esteemed organization.

Dear Sir,

I hope this letter finds you in good health and high spirits. I am writing on behalf of Bharat Institute of Engineering & Technology to request your esteemed organization's support in providing our students with an opportunity to undertake project work under your guidance.

As part of our academic curriculum, our students are required to gain hands-on experience through industry-oriented projects that enhance their practical knowledge and prepare them for professional challenges. We believe that your organization, being a leader in relevant industry or domain, would provide an excellent platform for our students to apply their theoretical learning to real-world scenarios.

We would be grateful if you could accommodate a group of our students for project/internship work for around 3 or 4 months. We assure you that our students are highly motivated and eager to contribute meaningfully under the supervision of your experts. Additionally, we are open to discussing specific project requirements and any other formalities necessary for a smooth collaboration.

We look forward to a positive response and a fruitful association with your organization. Please let us know a convenient time for further discussions on this matter.

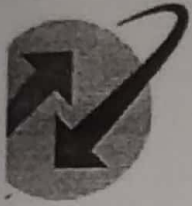
Thank you for your time and consideration.

Yours sincerely,



Principal
BIET
Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510





BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)
REGIONAL TELECOM TRAINING CENTRE

An ISO 9001-2008 Certified Institute

Gachibowli, Hyderabad - 500 032 Phone : 040-23000232
Fax : 040-23000229 Web site : www.rttchyd.bsnl.co.in



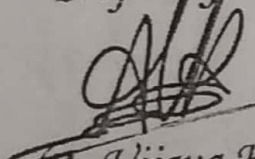
642503

CERTIFICATE

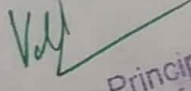
*This to certify that Mr. M Surya Pruthvi /12E11A0450/
a student of Bharat Institute of Engineering and Technology, has successfully
completed the academic project "Design and Implementation of
ISP MPLS backbone Network on IPv6 using GPE configuration"
at Regional Telecom Training Center, Gachibowli, Hyderabad.
The project report is a record of the bonafide work undertaken
by him towards partial fulfillment of the academic requirements
for award of B.Tech.*

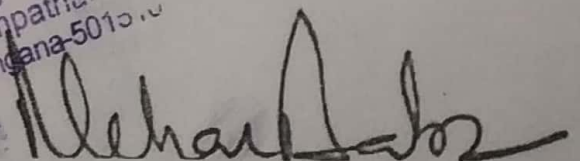
*He has successfully completed the project under the guidance of
Mr. A. Vijaya Kumar, during January-2016 to March-2016.*

Project Guide


(A. Vijaya Kumar)
Sub Divisional Engineer




Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam (R.A.)
Ranga Reddy (Dist)-Telangana-501510





BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)
REGIONAL TELECOM TRAINING CENTRE

An ISO 9001-2008 Certified Institute
Gachibowli, Hyderabad - 500 032 Phone : 040-23000232
Fax : 040-23000229 Web site : www.rttchyd.bsnl.co.in



642501

CERTIFICATE

This to certify that Mr. S Pavan Sunder /12E11A0447/
a student of Bharat Institute of Engineering and Technology has successfully
completed the academic project "Design and Implementation of
ISP MPLS backbone Network on IPv6 using 6PE configuration"
at Regional Telecom Training Center, Gachibowli, Hyderabad.
The project report is a record of the bonafide work undertaken
by him towards partial fulfillment of the academic requirements
for award of B.Tech.

He has successfully completed the project under the guidance of
Mr. A. Vijaya Kumar, during January-2016 to March-2016.

Project Guide

(A. Vijaya Kumar)
Sub Divisional Engineer



Dy. General Manager 31
RTTC, Hyderabad 03
16

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)
REGIONAL TELECOM TRAINING CENTRE
An ISO 9001-2008 Certified Institute
Gachibowli, Hyderabad - 500 032 Phone : 040-23000232
Fax : 040-23000229 Web site : www.rttchyd.bsnl.co.in



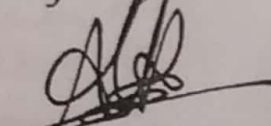
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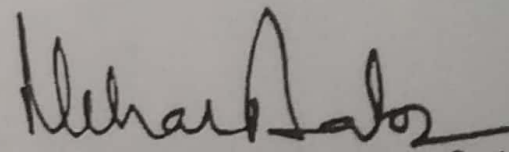
CERTIFICATE

This to certify that Mr. Pastam Shiva Kumar /12E11A0443/
a student of Bharat Institute of Engineering and Technology has successfully
completed the academic project "Design and Implementation of
ISP MPLS backbone Network on IPv6 using GPE configuration"
at Regional Telecom Training Center, Gachibowli, Hyderabad.
The project report is a record of the bonafide work undertaken
by him towards partial fulfillment of the academic requirements
for award of B.Tech.

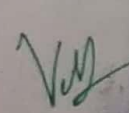
He has successfully completed the project under the guidance of
Mr. A. Vijaya Kumar, during January-2016 to March-2016.

Project Guide


(A. Vijaya Kumar)
Sub Divisional Engineer


Dy. General Manager 31
RTTC, Hyderabad 03
16




Principal
Bharat Institute of Engg. and Tech
Bhadrachalam (V), Ibrahimpatnam (M)
Ranga Reddy (Dist)-Telangana-501510

BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, Accredited by NAAC and Accredited by NBA : UG Programmes - CSE, ECE, EEE & Mechanical
Recognised by the Govt. of T.S. and Affiliated to JNTUH, Hyderabad.)

Sponsored by : CHINTA REDDY MADHUSUDHAN REDDY EDUCATIONAL SOCIETY

Mangalpally (Village), Ibrahimpatnam (Mandal), Ranga Reddy District - 501 510, Telangana. Tel : 08414 - 252399

Ref.:

BIET/2015

Date: 22/05/2015

To;
The Manager
BEL
Hyderabad

Subject: Request for Consent of Student Project Work in the esteemed organization.

Dear Sir,

I hope this letter finds you in good health and high spirits. I am writing on behalf of Bharat Institute of Engineering & Technology to request your esteemed organization's support in providing our students with an opportunity to undertake project work under your guidance.

As part of our academic curriculum, our students are required to gain hands-on experience through industry-oriented projects that enhance their practical knowledge and prepare them for professional challenges. We believe that your organization, being a leader in relevant industry or domain, would provide an excellent platform for our students to apply their theoretical learning to real-world scenarios.

We would be grateful if you could accommodate a group of our students for project/internship work for around 3 or 4 months. We assure you that our students are highly motivated and eager to contribute meaningfully under the supervision of your experts. Additionally, we are open to discussing specific project requirements and any other formalities necessary for a smooth collaboration.

We look forward to a positive response and a fruitful association with your organization. Please let us know a convenient time for further discussions on this matter.

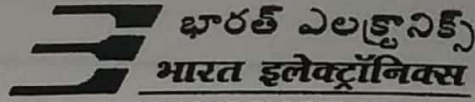
Thank you for your time and consideration.

Yours sincerely,

Vattikam Babu

Principal
BIET Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510





BHARAT ELECTRONICS

भारत इलेक्ट्रॉनिक्स लिमिटेड

(भारत सरकार का एक उद्यम, रक्षा मंत्रालय)
आई.ई. नाचारम, हैदराबाद - 500 076, भारत

Bharat Electronics Limited

(A Govt. of India Enterprise, Ministry of Defence)

I.E. Nacharam, Hyderabad - 500 076, India

Phone : 91-40-27194700 Ext.

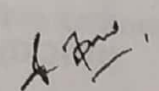
Fax : 91-40-27171406

CERTIFICATE OF PROJECT COMPLETION

This is to certify that **Mr. KARNA RANJITH KUMAR REDDY** bearing RollNo: **12E11A0433**, **Mr. RAMAVATH SANDEEP KUMAR** bearing RollNo: **12E11A0439**, **Mr. MANNEPALLI MAHENDRA** bearing Roll No: **13E15A0402** have completed the dissertation on **"To Design and develop the PLL based Synthesizer in the Frequency range from (2-3)GHz"** during the period from February 2016 to March 2016 which is being submitted to the Department of B.Tech **"Electronics and Communication Engineering"** from **"Bharat Institute Of Engineering and Technology"** (Mangalpally) affiliated to **"Jawaharlal Nehru Technological University"**, Hyderabad.


They have done this work at **"BHARAT ELECTRONICS LIMITED"**, Hyderabad where their work is found to be good.

This work has not been submitted in part or in full to any other University or Institute for the award of any degree or diploma.


Varun Yadav

M Tech (Microwave Engg)

Manager


Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam
Ranga Reddy (Dist)-Telangana

BHARAT ELECTRONICS LTD

Govt of India Enterprise Ministry Of Defence
Nacharam, HYDERABAD - 500 076



पंजीकृत कार्यालय : औटर रिंग रोड, नागवारा, बेंगलूर - 560 045, भारत

Registered Office : Outer Ring Road, Nagavara, Bangalore - 560 045, India

Phone : 080-2503 9300, Fax : 080-2503 9305, Website : <http://www.bel-india.com>

BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, Accredited by NAAC and Accredited by NBA : UG Programmes - CSE, ECE, EEE & Mechanical
Recognised by the Govt. of T.S. and Affiliated to JNTUH, Hyderabad.)

Sponsored by : CHINTA REDDY MADHUSUDHAN REDDY EDUCATIONAL SOCIETY

Mangalpally (Village), Ibrahimpatnam (Mandal), Ranga Reddy District - 501 510, Telangana. Tel : 08414 - 252399

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Thank you for your time and consideration.

Yours sincerely,

Vattikonda

Principal
BIET
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



S.No. 91625

भारत डायनामिक्स लिमिटेड

(भारत सरकार का उद्यम)

BHARAT DYNAMICS LIMITED

(A Govt. of India Enterprise)

रक्षा मंत्रालय MINISTRY OF DEFENCE

हैदराबाद HYDERABAD - 500 058.

प्रणाली, प्रौद्योगिकी तथा प्रबंधन संस्थान

INSTITUTE OF SYSTEMS, TECHNOLOGY AND MANAGEMENT

Year. 2016

प्रमाण-पत्र

Regd. No. 360

PROJECT CERTIFICATE

प्री/श्री

Ms./Mr.

APOORI TULSI DEVI

पुत्री/पुत्र/क्षीमती

Daughter/Son of Smt.

APOORI SHYAMALA

श्री

Shri.

APOORI YADAGARI

महाविद्यालय/संस्थान

College/Institute.

BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

विषय/शाखा

Subject/Discipline.

B-TECH (ECE)

वर्ष/सेमिस्टर

Year/Semester.

4-2

इस विषय पर परियोजना कार्य/प्रशिक्षण पूर्ण किया.

has completed Project Work/Training on.

AUTOMATIC CARD TESTING AND

DISPLAYING FAULT DIAGNOSTICS ON PC

अवधि

से

Duration. 45 DAYS

Period From. 04-01-2016

to.

18-02-2016 तक

इन्होंने अध्ययन में पर्याप्त रुचि दिखायी.

She/He has shown keen interest in learning.



मुहर

Seal



एस. नारायणन

S. NARAYANAN

अपर महाप्रबंधक (आ. एवं प्रशा.)
प्रमुख (मो. स. वि.)
Addl. General Manager (P&A)
Head (HRD)

Vh
Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Kanga Reddy (Dist)-Telangana-501510

आर अय्यप्पन

प्रभारी, परियोजना कार्य
प्रबंधक (आ. एवं प्रशा.)
Manager (P&A) - Appr. Trgs.

भारत डायनामिक्स लिमिटेड

(भारत सरकार का उद्यम)

BHARAT DYNAMICS LIMITED

(A Govt. of India Enterprise)

रक्षा मंत्रालय MINISTRY OF DEFENCE

हैदराबाद HYDERABAD - 500 058.

प्रणाली, प्रौद्योगिकी तथा प्रबंधन संस्थान

INSTITUTE OF SYSTEMS, TECHNOLOGY AND MANAGEMENT

Year 2016

प्रमाण-पत्र

Regd. No. 363

PROJECT CERTIFICATE

पुत्री/पुत्र

Ms./Mr.

Koganti Dheeraj

पुत्री/पुत्र/श्रीमती

Daughter/Son of Smt.

K. Seelakshmi

श्री

Shri K. Nagamalleswara Rao

हाविद्यालय/संस्थान

College/Institute

Bharat Institute of Engineering & Technology

विषय/शाखा

Subject/Discipline

B.TECH (ECE)

वर्ष/सेमिस्टर

Year/Semester

4-2

स विषय पर परियोजना कार्य/प्रशिक्षण पूर्ण किया।

as completed Project Work/Training on

Health Monitoring System.

Of specimen

वधि

Duration 45 Days

Period From

04-01-2016

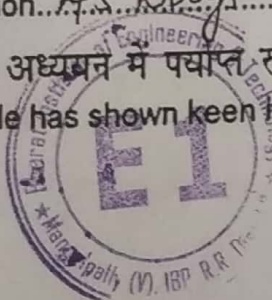
से

to

18-02-2016 तक

होने अध्ययन में पर्याप्त रुचि दिखायी।

He/He has shown keen interest in learning.



मुहर

Seal

VH

Principal
Bharat Institute of Engg. and Tech
Mangalpatnam, Ibrahimpatnam
Ranga Reddy (Dist. Telangana-50

S. NARAYANAN

अपर महाप्रबंधक (का. एवं प्रशा.)

Addl. General Manager (P&A)

प्रमुख (मा.सं.वि.)

Head (HRD)

R 22

आर अय्यप्पन

R IYAPPAN

प्रबंधक (का. एवं प्रशा.)-शिक्षु-प्रशि.
Manager (P&A)- Appr. Trgs.

प्रभारी, परियोजना कार्य

Incharge Project Works

सेंट्रल इंस्टीट्यूट ऑफ प्लास्टिक्स
इंजीनियरिंग एंड टेक्नॉलॉजी
(रासायन एवं पेट्रोसायन विभाग)
रासायन एवं उर्वरक मंत्रालय, भारत सरकार)
आई.डी.ए. फेस-२, चेरलापल्ली, हैदराबाद-५०० ०५१
दूरभाष : ०४०-२७२६३७५०, २७२६३६१५, फैक्स : ९१-४०-२७२६४०५१
E-mail : hyderabad@cipet.gov.in, Web : www.cipet.gov.in



CENTRAL INSTITUTE OF PLASTICS
ENGINEERING & TECHNOLOGY

(Department Of Chemicals & Petrochemicals
Ministry of Chemicals & Fertilizers, Govt. of India)

HCL Post, IDA, Phase II, Cherlapally, Hyderabad - 500 051
Tel.: 040-27263750, 27263615, Fax: 91-40-27264051
E-mail: hyderabad@cipet.gov.in, web : www.cipet.gov.in

2015-16

Memorandum of Understanding

This memorandum of Understanding executed on the day 10th of February '2016 between:

Central Institute of Plastics Engineering & Technology, having its registered office at Chennai and Extension center at HCL post, IDA Phase-II, Cherlapally, Hyderabad-500051 (Under Department of Chemicals and Petrochemicals, Ministry of Chemicals and Fertilizers, Govt. of India), Here after called as CIPET-Hyderabad.

AND

M/s. Bharat Institute of Engineering and Technology, Approved by AICTE located at Mangalpally, Ibrahimpatnam, R.R (dt), Telangana here after called as BIET Hyderabad

The parties wish to collaborate each other for providing outsourcing services on training of student of **Bharat Institute of Engineering and Technology** for a period of 1½ years from the date of signing of this MOU and further extendable 1½ year.

The Parties here to agree as follows:-

1. CIPET-Hyderabad will be providing training to Mechanical Engineering Students of **Bharat Institute of Engineering and Technology** in the areas of CAD/CAM software's, CNC Machines, Mini Project, Main Project, Plastics Product Manufacturing & Quality Assurance, Design of Moulds & Dies using CAD/CAM, Tooling of Moulds & Dies using CNC Concepts.
2. CIPET-Hyderabad will be providing training to all branches engineering students of **Bharat Institute of Engineering and Technology** for Entrepreneurship Development Programs in the areas of Plastic and its allied industries.
3. All the training sessions will be held at CIPET-Hyderabad campus only.
4. The course fee shall be paid fully before the commencement date of the course.
5. The Number of candidates will be trained under this MoU will be 100 and initially shall start with minimum 20 Nos. & 20% discount will be provided on the following course fee.

6. The Course fee per trainee and duration is as follows:

S.No	Course Name	Course Fee per Student	Duration
1	CAD/CAM Software's Like:- Auto CAD/Pro-E/ Master Cam/UG/Catia/Solid Works/ Ansys/ MSC Fatigue with FEA	as the approved courses	60-120 Hrs.
2	Mini Project	Rs.2,000/-	60 Hrs.
3	Major Project	Rs.4,000/-	150 Hrs.
4	Inplant/Internship training with Auto CAD Software	Rs.6,000/-	150 Hrs.
5	CNC Programming using MTAB Software	Rs.6,000/-	120 Hrs.
6	Design of Moulds & Dies using CAD/CAM	Rs.10,000/-	120 Hrs.
7	Tooling of Moulds & Dies using CNC Concepts	Rs.10,000/-	120 Hrs.
8	EDP (Min 10 Nos. each Batch)	Rs.10,000/-	180Hrs.

Note: Extra Service Tax 14.5% on the above will be paid by the trainee.

IN WITNESS THERE OF, the Members to the Memorandum of Understanding have through their authorized representatives executed these presents and affixed common seal of their companies, on 10th of February 2016

By the within named "CIPET-Hyderabad" through its Authorized Representative

Name: CH. SHEKHAR Signature [Signature] 10/02/16

Designation: Manager (DTR)

WITNESS

In the presence of S. Srinivasulu Reddy Signature [Signature]

Signed and delivered on 10th of February' Month 2016



By the within named "Bharat Institute of Engineering and Technology" through its Authorized Representative

Name: D.K.S. Srinivasulu Reddy Signature [Signature] 10/02/16

Designation: Dean & Professor

Bharat Institute of Engineering & Technology
Mangalagiri
Narayanpet District-50

WITNESS

In the presence of K. Raju Signature [Signature] 10/02/16

Signed and delivered on 10th of February 'Month 2016



Report of Activity in Central Institute of Plastics Engineering & Technology CIPET

B. Tech III Year Mechanical Engineering Students training at CIPET. CIPET is the pioneer institute for providing the training in plastic technology and advance manufacturing. Our students have got broad exposure to the latest development in manufacturing processes and machines through training and internship.

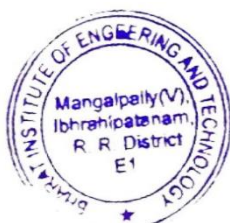


BIET Students training in CIPET, Hyderabad

1. Introduction: A Training Program by the Central Institute of Petrochemicals Engineering & Technology (CIPET) was organized on for students of BIET. The training aimed to provide students with practical exposure to the latest advancements in polymer technology, manufacturing processes and quality control measures in the plastics and petrochemicals industry.

2. Objectives of the Training:

- To understand the functioning of CIPET and its role in the petrochemicals and plastics industry.
- To gain insight into various polymer processing techniques and machinery.
- To observe quality control measures and testing procedures used in the industry.
- To bridge the gap between theoretical knowledge and industrial applications.



VattikamBabu

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpattanam(M)
Ranga Reddy (Dist)-Telangana-501510



3. Training Schedule & Activities: The training included the following sessions and activities:

- **Welcome and Introduction:** A briefing session by CIPET officials on the institution's mission, research, and training programs.
- **Tour of the Manufacturing Facility:** Students observed various polymer processing techniques, including injection molding, extrusion, and blow molding.
- **Quality Control and Testing Labs:** A detailed training of different testing methodologies used for evaluating material properties.
- **Interaction with Industry Experts:** Students had the opportunity to interact with professionals and gain valuable insights into career opportunities in the field of polymer technology.
- **Q&A Session:** A discussion session where students clarified their doubts and learned about recent industry trends.

4. Key Learnings & Observations:

- Exposure to advanced polymer processing techniques and machinery.
- Understanding of industry standards for quality testing and material evaluation.
- Practical knowledge of how petrochemical products are designed and manufactured.
- Awareness of career prospects in the polymer and petrochemicals sector.

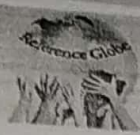
5. Conclusion: The industrial visit to CIPET was an informative and valuable experience for students, providing them with practical exposure to industry processes. The training helped bridge the gap between classroom learning and real-world applications, enhancing students' understanding of polymer technology and manufacturing.

6. Acknowledgment: We extend our sincere gratitude to CIPET for hosting the training and providing valuable insights into the petrochemical and polymer industry. Special thanks to faculty coordinators and the management for organizing the visit and ensuring a fruitful learning experience for students.



Vettikambu

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



ReferenceGlobe - College Promoted students - MOU

MEMORANDUM OF UNDERSTANDING

BETWEEN

Reference Globe

AND

Bharat Institute Of Engineering And Technology-Telangana 501510.

This Agreement made and entered into on this 30/23 day of February 2016 between **ReferenceGlobe(Associated with Stee Consulting and software Technologies) , Hyderabad**, an on growing Reference Network platform situated at 8-3-214/10/1/A, 1'st Floor, Srinivasa Colony(West), SR Nagar, HYD-38 and **Bharat Institute Of Engineering And Technology ,Mangalpally, Ibrahimpatanam, Hyderabad, Telangana 501510..**

1. OBJECTIVES OF THE MOU

Reference Globe Provides Student promotion Services to **Bharat Institute Of Engineering And Technology-Telangana-501510** which includes all the below set services as part of Service.

- Promoting the students of the organization to the Reference Globe partnered companies online directly.
- Maintaining student verified online CV and video resume.
- Enabling students to apply for Internships to the Reference Globe partnered companies online directly.
- Providing 24/7/365 online assessment platform to the students along with 4000 + online tests that span across multiple technologies and companies.
- Conducting 5 assessment tests to promoted students and sharing the test results to the companies along with promoted student profile.
- Providing Online test platform to the College to conduct their own assessment / subject matter tests and track online tests for the promoted students online.
- Providing more than 4.5 Lakhs Questions of Question bank to the college to conduct online tests to the promoted students that span across multiple technologies and several placement papers form the companies
- Providing online platform to the promoted students connect the Alumni and students across India to exchange opportunities and information for better career opportunities.
- Providing Access to 4000 + Universities information across Globe to the promoted students for better Higher Education career for the students.
- Sending latest career and Education opportunity information to the students every day.
- Providing Resume Guidance to the students from the sample Resumes.
- Providing project Guidance online to the students from the sample projects database.

2. PROPOSED MODES OF COLLABORATION

- As a first step, college will be parented with Reference globe by Registering online to Reference Globe education network.
- College will send the promoted students list in the predefined format provided by Reference globe.
- ReferenceGlobe will promote the students in ReferenceGlobe as a onetime bulk process and upon successful student promotion; every promoted student will receive student account details to access ReferenceGlobe's promoted student services.
- College TPO or concerned person will evaluate and confirm the promoted students.
- Most of the collaboration will happen online using built in online platform between college and ReferenceGlobe.

3. CONFIDENTIALITY and DATA INTEGRITY.

- Promoted students data will be shared with the companies /employers who are registered with ReferenceGlobe as Employers and Companies.



ReferenceGlobe - College Promoted students - MOU

- b. Whereas students can share their online CV and video resume to any company from Reference Globe on their own interest, ReferenceGlobe would not have any integral check on this case.
- c. College will be given access to the details of the students as available on the Reference Globe's College Account and the College shall have the right to edit the same from time to time.

4. TERMS AND TERMINATION

This MOU, unless terminated by mutual written agreement of either party will continue for a period of five years unless either of the party terminates this MoU by providing a 60 day written notice, wherein the written notice needs to be sent by terminating party by Email, and further by sending the termination notice under certificate of posting to the other party. However no such early termination of the MoU, whether mutual or unilateral, shall lessen the burden of Reference Globe's obligations to provide all of the services to the students all as described in Clause 1, "Objectives of the MoU". The said clause 1 herein, titled "Objective of the MoU" shall be deemed to be the services deliverable by Reference Globe to the College and its nominated students.

Nothing to this MoU shall be construed to make either party a partner, an agent or legal representative of the other for any purpose.

- 5. Any changes to this MoU shall be in writing that is mutually accepted, and unless so accepted the terms and conditions of this MoU and the substantive obligations of either party shall not vary.
- 6. Reference Globe will nominate one person or group of people who shall be available to address any complaints the students may have, and will undertake to remedy the issue where it leads to non-fulfillment of any one or all of the services stated in "Objectives of the MoU" above, with respect to any particular student. Non correction of the issue raised within one week, to the satisfaction of the College and/or the student, will result in the refund of 50% of the monies paid on behalf of the student. If such an issue occurred after six months of initial payment. If the issue occurred within the first six months and is under solved within one week, then Reference Globe will be liable to refund the full amount paid on behalf of the student raising the issue.
- 7. If the services provided by ReferneceGlobe, all as described in "Objectives of the MoU'hereinaabove are not of an acceptable standard that comports with the objective of giving maximum exposure and enhancing employability of the student then Reference Globe shall be liable to repay the full amount if the issue of such lower standard service is pointed out within first six months of the execution of the MoU. And 50% of the amount paid if after the six months after the execution of the MoU.

8. COSTS OF THE MOU

College should pay Rs. 200 for each student to promote in ReferenceGlobe either online transfer or check payment towards ReferenceGlobe.
There are not hidden costs involved under this process.
There is no Re-fund option once payment is made.
Each Party shall bear the respective costs of carrying out the obligations under this MOU.



ReferenceGlobe - College Promoted students - MOU

9. SIGNED IN DUPLICATE

This MOU is executed in duplicate with each copy being an official version of the Agreement and having equal legal validity.

BY SIGNING BELOW, the parties, acting by their duly authorized officers, have caused this Memorandum of Understanding to be executed, effective as of the day and year first above written.

On behalf of

on behalf of

REFERENCEGLOBE

to **Bharat Institute of Engineering And Technology,**

By :

By :

Name : Nag Kukkadapu

Name :

Title : Director

Title :

Date :

Date :

Witness:

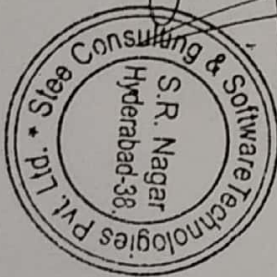
Witness :

1.

1.

2.

2.



Director



ACTIVITY REPORT ON COLLABORATION WITH REFERENCE GLOBE

A collaborative project was implemented Titled "Implementation of Solar Powered LED Street Light with auto Intensity control", was done by the following students: P. Shruthi Reddy-14E11A0231, A Pranay-15E1A0203, B Srikar-15E1A0204 & P Ravishankar- 15E1A0225 under the guidance of Mr. K. Srinivasa Rao.



Project on "Implementation of Solar Powered LED Street Light with auto Intensity control

Organized by: BIET (Bharat Institute of Engineering & Technology) with Reference Globe

Objective: The project aimed to design and implement a **solar-powered LED street light system** with **auto-intensity control**, ensuring efficient energy usage and sustainability. The primary objective of this project was to provide a clean, eco-friendly, and cost-effective lighting solution for street illumination, reducing electricity consumption while making use of renewable solar energy. This project was carried out by the students of **Bharat Institute of Engineering & Technology (BIET)** and coordinated by **Reference Globe**.



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2. Project Overview

The project, titled "**Implementation of Solar Powered LED Street Light with Auto Intensity Control**", was developed as a sustainable alternative to traditional street lighting systems. The project was designed to address the growing concerns of high electricity consumption and the environmental impact of conventional lighting systems. The system uses **solar energy** to power the **LED lights**, and the **auto-intensity control** feature adjusts the brightness of the street lights based on environmental factors such as ambient light levels and time of day.

Key Components of the Project:

- **Solar Panels:** Convert solar energy into electrical power.
- **LED Lights:** Energy-efficient lights that illuminate the streets.
- **Auto Intensity Control:** A system that adjusts the brightness of the lights based on factors like time and environmental light.
- **Batteries:** Store the energy generated by the solar panels to power the lights during nighttime.
- **Microcontroller:** Acts as the brain of the system, controlling the lighting intensity and monitoring the performance of the entire system.

Main Objectives:

1. To implement a **solar-powered** solution for street lighting, reducing dependency on the grid and utilizing renewable energy.
2. To design and install **LED street lights** with **automatic intensity control** that adjusts brightness based on natural ambient light, saving energy.
3. To develop an energy-efficient street lighting system that can be used in urban as well as rural areas where electricity supply might be unreliable.



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3. Project Details and Execution

Phase 1: Design and Planning

The first phase of the project involved designing the overall system and selecting the appropriate components required to implement the solar-powered LED street light system. The following steps were taken:

- **System Design:** The students designed a schematic for the system, showing how the solar panels, battery, LED lights, and auto intensity control system would be connected and function together.
- **Component Selection:** The selection of components included:
 - **Solar Panels:** Sufficient capacity to charge the battery during daylight hours.
 - **LED Lights:** Low-energy, high-efficiency LED lights to ensure minimal power consumption.
 - **Batteries:** Suitable batteries to store the solar power for use during the night.
 - **Microcontroller:** A microcontroller, such as **Arduino** or **Raspberry Pi**, was chosen to control the entire system and implement the auto-intensity control.

Phase 2: Development and Assembly

After finalizing the design, the students proceeded with the development and assembly of the system:

- **Solar Panel Installation:** The solar panels were installed in an optimal position to ensure maximum exposure to sunlight during the day, allowing them to efficiently charge the battery.
- **LED Street Light Setup:** LED lights were installed and connected to the system with proper wiring, ensuring that they could be powered by the battery during the night.
- **Battery and Storage System:** Batteries were connected to the solar panel to store energy during the day. The battery system was designed to be efficient and reliable, ensuring long hours of lighting after sunset.



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- **Microcontroller Programming:** The microcontroller was programmed to control the LED lights' intensity. The auto-intensity control was achieved using a **light-dependent resistor (LDR)** or **photodiode** to detect ambient light. The system would adjust the brightness of the lights according to the time of day and the intensity of natural light.

Phase 3: Auto Intensity Control Implementation

The auto-intensity control feature was a key innovation in this project. The system worked as follows:

- **Daylight Hours:** During the day, when there is sufficient sunlight, the LED lights remain off, and the solar panels charge the battery.
- **Nighttime Operation:** After sunset, the system switches on the LED lights, using the stored energy in the battery. The **LDR (Light Dependent Resistor)** detects the level of ambient light and adjusts the intensity of the LED lights accordingly. If it is a moonlit night or the surrounding area is well-lit, the brightness is reduced to save energy. On cloudy nights or during periods of minimal ambient light, the intensity is increased to ensure sufficient street illumination.

Phase 4: Testing and Optimization

Once the system was assembled, the students conducted multiple tests to ensure the system functioned correctly:

- **Efficiency Testing:** The system was tested for energy efficiency, ensuring that the battery stored enough power during the day to last through the night.
- **Auto-Intensity Control Testing:** The auto-intensity control was fine-tuned to ensure that the LED lights adjusted brightness appropriately based on the level of ambient light.
- **Long-Term Durability:** The system was tested under real-world conditions for several nights to ensure that it was both durable and reliable, capable of functioning through various weather conditions.



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4. Challenges Faced

Throughout the project, the students encountered and overcame several challenges:

- **Weather Dependency:** Solar power generation depends on sunlight, which can be inconsistent due to weather conditions. The team addressed this by ensuring that the battery had sufficient storage capacity to handle cloudy or rainy days.
- **Component Compatibility:** The integration of various components such as the solar panels, batteries, and LEDs required careful selection and compatibility testing. Ensuring that the solar panel could generate enough power to charge the battery and power the LED lights was a key challenge.
- **System Calibration:** Calibrating the auto-intensity control system to respond accurately to varying light conditions and maintain optimal lighting levels required fine-tuning.

Despite these challenges, the students successfully developed a working prototype of the **solar-powered LED street light** with auto-intensity control.

5. Key Outcomes and Benefits

The project achieved several important outcomes and demonstrated numerous benefits:

- **Energy Efficiency:** The use of solar power significantly reduced the dependency on grid electricity, making the system eco-friendly and energy-efficient. The auto-intensity control further optimized energy consumption by adjusting the brightness based on environmental conditions.
- **Sustainability:** The system promotes the use of renewable solar energy, reducing carbon footprints and supporting sustainable urban development.



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- **Cost Savings:** By using solar energy, the street lighting system reduces electricity costs over time, making it a cost-effective solution for municipalities and urban planners.
 - **Scalability:** The design can be easily scaled for use in larger urban areas or rural regions that require off-grid solutions. The system can be replicated to cover large areas without requiring significant infrastructure investment.
 - **Smart Technology:** The auto-intensity control feature adds a smart element to the system, ensuring that energy is used wisely without compromising the lighting needs of the area.
-

6. Conclusion

The project on "**Implementation of Solar Powered LED Street Light with Auto Intensity Control**" was a significant achievement for the students of **Bharat Institute of Engineering & Technology (BIET)**, coordinated by **Reference Globe**. It showcased their ability to integrate renewable energy solutions with smart technologies to develop an efficient, sustainable, and cost-effective street lighting system.

The successful implementation of this project not only addressed the environmental concerns associated with conventional street lighting but also offered an innovative solution for **energy conservation** in urban and rural settings. The project serves as a valuable example of how **solar power** and **intelligent systems** can be utilized to solve real-world problems while contributing to a more sustainable future.



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BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, Accredited by NAAC and Accredited by NBA : UG Programmes - CSE, ECE, EEE & Mechanical
Recognised by the Govt. of T.S. and Affiliated to JNTUH, Hyderabad.)

Sponsored by : CHINTA REDDY MADHUSUDHAN REDDY EDUCATIONAL SOCIETY

Mangalpally (Village), Ibrahimpatnam (Mandal), Ranga Reddy District - 501 510, Telangana. Tel : 08414 - 252399

Ref.: BIET/2015

Date: 22/05/2015

To;
The Manager
ECIL
Hyderabad

Subject: Request for Consent of Student Project Work in the esteemed organization.

Dear Sir,

I hope this letter finds you in good health and high spirits. I am writing on behalf of Bharat Institute of Engineering & Technology to request your esteemed organization's support in providing our students with an opportunity to undertake project work under your guidance.

As part of our academic curriculum, our students are required to gain hands-on experience through industry-oriented projects that enhance their practical knowledge and prepare them for professional challenges. We believe that your organization, being a leader in relevant industry or domain, would provide an excellent platform for our students to apply their theoretical learning to real-world scenarios.

We would be grateful if you could accommodate a group of our students for project/internship work for around 3 or 4 months. We assure you that our students are highly motivated and eager to contribute meaningfully under the supervision of your experts. Additionally, we are open to discussing specific project requirements and any other formalities necessary for a smooth collaboration.

We look forward to a positive response and a fruitful association with your organization. Please let us know a convenient time for further discussions on this matter.

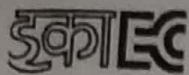
Thank you for your time and consideration.

Yours sincerely,



Principal
BIET
Bharat Institute of Engg. and Tech
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Ranga Reddy (Dist)-Telangana-501510





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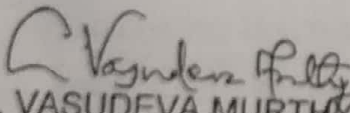


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Date: 31.03.2016.

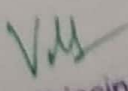
This is to certify that Ms. SOUMYA NAREDLA (12E11A0407), Ms. M. SUNITHA (12E11A0410) AND Ms. B. SARITHA (12E11A0405) are the students of BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY pursuing B.Tech., (ELECTRONICS AND COMMUNICATION ENGINEERING) have done their Project Work entitled "IRRIGATION SYSTEM USING WIRELESS SENSORS NETWORK AND WIFI TECHNOLOGY" from 20.01.2016 to 19.02.2016 for the Award of certificate for the Degree mentioned above and that this report is a bonafide account of the Project Work carried out under our guidance. The students displayed analytical capability, have innovative approach to solve problems and have produced good result.

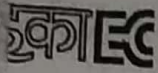

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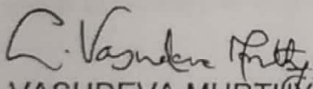


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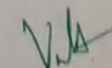
This is to certify that Ms. V. MANASA (12E11A0404) AND Ms. K. SUPRAJA (12E11A0411) are the students of BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY pursuing B.Tech., (ELECTRONICS AND COMMUNICATION ENGINEERING) have done their Project Work entitled "A LOW-COST SENSOR NETWORK FOR REAL-TIME MONITORING AND CONTAMINATION DETECTION IN DRINKING WATER DISTRIBUTION SYSTEMS" from 11.01.2016 to 10.02.2016 for the award of the certificate for the Degree mentioned above and that this report is a bonafide account of the Project Work carried out under our guidance. The students displayed analytical capability, have innovative approach to solve problems and have produced good result.


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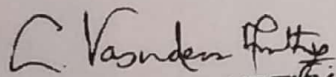
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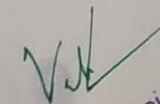
Date: 31.03.2016.

This is to certify that Mr. ENDRAVATH MOTHILAL NAYAK (12E11A0487), Mr. MEDI UDAY KUMAR (12E11A04A4) AND Mr. AGGU VIKRAM (12E11A04A6) are the students of BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY pursuing B.Tech., (ELECTRONICS AND COMMUNICATION ENGINEERING) have done their Project Work entitled "IMPLENTING INTELLIGENT TRAFFIC CONTROL SYSTEM FOR CONGESTION CONTROL, AMBULANCE CLEARANCE, AND STOLEN VEHICLE DETECTION" from 03.02.2016 to 02.03.2016 for the award of the certificate for the Degree mentioned above and that this report is a bonafide account of the Project Work carried out under our guidance. The students displayed analytical capability, have innovative approach to solve problems and have produced good result.


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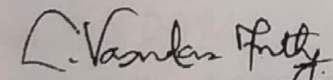

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CERTIFICATION OF PROJECT COMPLETION

Date: 25/04/2016

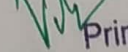
This is to certify that Mr. K.UTTAM (12E11A0477), Mr. B.AKHIL KUMAR (12E11A0478) & Mr. G. JAYA PRAKASH (12E11A0484) are the students of BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY pursuing B.Tech., (ELECTRONICS AND COMMUNICATION ENGINEERING) have done their project work entitled "WIRELESS BLACKBOX USING MEMS ACCELEROMETER AND GPS TRACKING FOR ACCIDENT MONITORING OF VEHICLES" during 06-01-2016 to 05-03-2016 (Weekly Thrice) in partial fulfillment for the award of the certificate in the degree mentioned above and that this report is a bonafide account of the project work/internship carried out under our guidance. The students displayed analytical capability, have innovative approach to solve problems and have produced good result.


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 HEAD: CED



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CERTIFICATION OF PROJECT COMPLETION

Date: 31.03.2016.

This is to certify that **Mr. TANNEERU RAMESH (12E11A0495)** is the student of **BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY** pursuing **B.E., (ELECTRONICS AND COMMUNICATION ENGINEERING)** has done his **Project Work "SMART SECURITY SYSTEM FOR ATM'S"** from **12.02.2016 to 12.03.2016** for the award of the Certificate for Degree mentioned above and that this report is a bonafide account of the **Project Work** carried out under our guidance. The student displayed analytical capability has innovative approach to solve problems and has produced good result.

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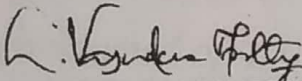
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CERTIFICATION OF PROJECT COMPLETION

Date: 19/04/2016


This is to certify that Ms. CHINTHALAPALLY SWETHA (12E11A0414), Ms. T.SHRUTHI REDDY (12E11A0406) & Mr. K.ABHILASH (12E11A0416) are the students of BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY pursuing B.Tech., (ELECTRONICS AND COMMUNICATION ENGINEERING) have done their project work entitled "A RECONFIGURABLE SMART SENSOR INTERFACE FOR INDUSTRIAL WSN IN IOT ENVIRONMENT" during 04-02-2016 to 02-04-2016 (weekly 3 days) in partial fulfillment for the award of the certificate in the degree mentioned above and that this report is a bonafide account of the project work carried out under our guidance. The students displayed analytical capability, have innovative approach to solve problems and have produced good result.


 L.VASUDEVA MURTHY
 HEAD: CED



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BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

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Sponsored by : CHINTA REDDY MADHUSUDHAN REDDY EDUCATIONAL SOCIETY

Mangalpally (Village), Ibrahimpatnam (Mandal), Ranga Reddy District - 501 510, Telangana. Tel : 08414 - 252399

Ref.:

BIET/2015

Date: 22/05/2015

To;
The Manager
SCR
Hyderabad

Subject: Request for Consent of Student Project Work in the esteemed organization.

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Thank you for your time and consideration.

Yours sincerely,

Vattihalli

Principal
BIET
Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510





South Central Railway

INTERNSHIP CERTIFICATE

To whom so ever it may concern

This is to certify that Mr. P.N.V.A. VAMSI KISHORE student of Final year B-Tech in CIVIL ENGINEERING of Bharat Institute of Engineering and Technology, Ibrahimpatnam, Hyderabad bearing roll no 12E11A0157 has successfully completed his internship at HYDERABAD DIVISION, SOUTH CENTRAL RAILWAY, Secunderabad from 2nd March 2016 to 6th April 2016.

"Study and Analysis of Constructional Methodology of ROAD UNDER BRIDGE in Indian Railways"

During the internship, he acquired good knowledge skills and design skills with a well motivating attitude to learn the new things. His performance was good and was not distracted in our work, he also completed the project successfully. We wish him all the best for his future endeavors.



(P.V. SAI PRASAD) 12/4/16
Sr. DIVISIONAL ENGINEER/CO-ORDINATION HYB
HYDERABAD DIVISION
SOUTH CENTRAL RAILWAY



Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



South Central Railway

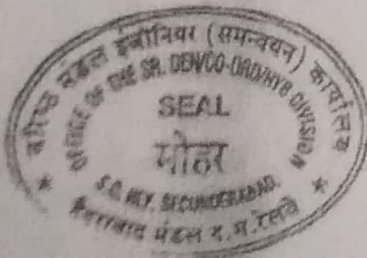
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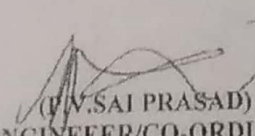
INTERNSHIP CERTIFICATE To whom so ever it may concern

This is to certify that Mr. A.S.DEEPTHANSHU student of Final year B-Tech in CIVIL ENGINEERING of Bharat Institute of Engineering and Technology, Ibrahimpatnam, Hyderabad, bearing roll no 12L11A0147 has successfully completed his internship at HYDERABAD DIVISION, SOUTH CENTRAL RAILWAY, Secunderabad from 2nd March 2016 to 6th April 2016.

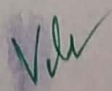
"Study and Analysis of Constructional Methodology of ROAD UNDER BRIDGE in Indian Railways"

During the internship, he acquired good know-ledge skills and design skills with a self motivating attitude to learn the new things. His performance was good and was not distracted to our work, he also completed the project successfully. We wish him all the best for his future endeavors.




(P.V.SAI PRASAD)
Sr.DIVISIONAL ENGINEER/CO-ORDINATION/HYB
HYDERABAD DIVISION
SOUTH CENTRAL RAILWAY




Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



South Central Railway

Service with a difference

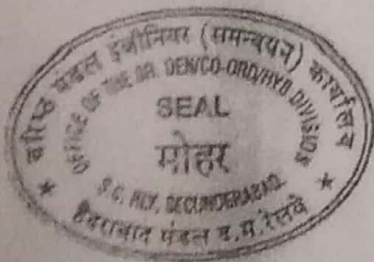
DATE
13/4/16

INTERNSHIP CERTIFICATE To whom so ever it may concern

This is to certify that Mr. K.SRINIVAS KARTHIK student of Final year B Tech in CIVIL ENGINEERING of Bharat Institute of Engineering and Technology, Ibrahimpatnam, Hyderabad bearing roll no 12E11A0119 has successfully completed his internship at HYDERABAD DIVISION, SOUTH CENTRAL RAILWAY, Secunderabad from 2nd March 2016 to 6th April 2016.

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(J. X. SAI PRASAD) 13/4/16
Sr. DIVISIONAL ENGINEER/CO-ORDINATION/HYB
HYDERABAD DIVISION
SOUTH CENTRAL RAILWAY



V. M. Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



South Central Railway

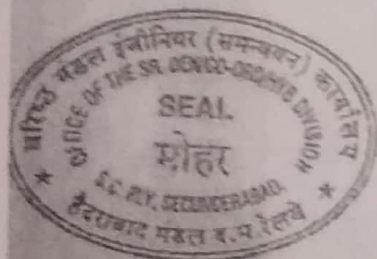
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SECUNDERABAD

INTERNSHIP CERTIFICATE *To whom so ever it may concern*

This is to certify that Mr. J.VITTAL student of Final year B-Tech in CIVIL ENGINEERING of Bharat Institute of Engineering and Technology, Ibrahimpatnam, Hyderabad bearing roll no 12E11A0118 has successfully completed his internship at HYDERABAD DIVISION, SOUTH CENTRAL RAILWAY, Secunderabad from 2nd March 2016 to 6th April 2016.

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Ranga Reddy (Dist)-Telangana-501510

EXHIBIT C

CONTRACT EXTENSION DOCUMENT

THIS AGREEMENT WITH INSTITUTES (the "Agreement") is entered into on 20th day of JANUARY, 2016 (the "Effective Date")

CoCubes Technologies Pvt. Ltd., a company incorporated under the Companies Act, 1956, having its principal place of business at A-1101, 11th Floor, Unitech Arcadia, Sohna Road, Sector - 49, Gurgaon, Haryana - 122018 (hereinafter mentioned as "CoCubes", which expression shall mean to include its successors-in-interest and permitted assigns) of the One Part.

BHARAT GROUP OF INSTITUTIONS **AND** HYDERABAD having its principal place of business at _____ (hereinafter mentioned as "the Institute", which expression shall mean to include its successors-in-interest and permitted assigns) of the Second Part.

CoCubes and the Institute shall hereinafter be individually be referred to as "Party" collectively as "Parties"
Service to be offered by CoCubes.com are:

- A. Continuous Evaluation Assessments for First Year, Second Year and Third Year Students
- B. 6 Diagnostic Career Test + 1 PRE-ASSESS for final year students.

Commercials are as follows:

Offering	Batch	Degrees	Count of Students
As above	2016	B.Tech	550
As above	2017	B.Tech	550
As above	2018	B.Tech	550
As above	2019	B.Tech	600

The total deal is INR 5,50,000 which is inclusive of Service Tax, applicable at 14.5% as on 1st June 2015.

Payment Terms: College is requested to make the payment 100% advance.

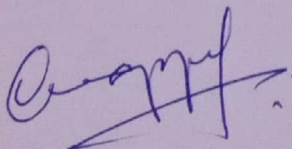
If the Institute fails to make the payment, assuming the logins of the student and/or institute are active, the CoCubes Online Platform will auto lock all the log-ins provided to (all- across batches) the Students and the institute. This may lead to loss of opportunities for Students for which CoCubes will not be held responsible.

It has to be noted that the fees charged by CoCubes is towards the annual subscription of the technology for career development and training offerings; the fee is not towards creating employment opportunity of any specific company. As a principle and business model, CoCubes does not charge fee in the name of any specific company.

Name:

Designation:

Bharat Group of Institutions



Sameer Nagpal
National Head - Institutions
CoCubes

CoCubes Agreement

This document is regarding partnership with Bharat Group of Institutions ("Client") of CoCubes Technologies Pvt. Ltd., an Aon Company ("CoCubes"), for availing the Services defined hereinafter. We are bringing on record the following terms of our engagement.

COMMERCIAL TERMS FOR AGREEMENT

Scope of Services and Project Plan – Continuous Evaluation Program

Fees :-

Offering	Batch	Count of Students	To Investment by College
Continuous Evaluation Program	2017,2018,2019,2020	2250	INR 5,50,000/-

Above price is inclusive of all taxes.
Institute had processed the payment on 21-Oct-2016.

LEGAL TERMS FOR AGREEMENT WITH INSTITUTES

- (a) This Agreement shall be on a "principal to principal" basis.
- (b) The Services of CoCubes, an Aon Hewitt company, shall be provided on a non-exclusive basis to the Institute.
 - I. CoCubes shall provide access to its Platform to the Institute and the Students, provided that the use of the Platform shall be subject to its Terms and Conditions at https://static.cocubes.com/document/reg_tc.html, which shall prevail in all matters related to access and use of the Platform.
 - II. All data related to Students shall be authenticated and provided by the Institute in a predefined format. CoCubes does not conduct any background checks on the Students or verify the contents of their resume/curriculum vitae and hence does not warrant the authenticity of any Student data on the Platform.
 - III. CoCubes shall not be responsible for any loss of opportunity for those Students whose data is incomplete or inaccurate. CoCubes will not be held liable for any deviation, non-delivery or delay in provision of Services under this Agreement nor will CoCubes be deemed to be in breach of its obligations hereunder due to external factors beyond CoCubes's control.
- (c) CoCubes reserves the right to suspend performance of the Services, if the Institute fails to pay any due fees.

- Agreement by the other Party will not operate or be construed as a waiver of any subsequent, similar breaches by the breaching Party.
- (q) All notices under this Agreement will be in writing and deemed effectively delivered upon receipt by personal delivery, reputed courier service or registered mail at the address provided by the Parties and as confirmed by delivery receipt.

Additional points

1. Payment Terms

- a.) 100% advance before start of the assessment program.
- b.) If the Institute fails to make the payment, assuming the log-ins of the student and/or Institute are active, the Platform will auto lock all the log-ins provided to (all across batches) the Students and the Institute. This may lead to loss of opportunities for Students for which CoCubes will not be responsible.





2. Disclaimers

- a.) It has to be noted that the fees charged by CoCubes is towards the annual subscription of the technology for career development offerings; the fee is not towards creating employment opportunity of any specific company. As a principle and business model, CoCubes does not charge fee in the name of any specific company.
- b.) Updates in count of Students, Services, prices and Terms for further batches need to be mutually agreed upon in writing

Regards,
Vinay Singh
Regional Lead - Institutions (AP-TS)
CoCubes.com
+91 880 122 5972

CoCubes
An Aon Hewitt Company

Seamless Access To Assessments

- | | |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|  Behavioral |  Cognitive |
|  Technical |  Vocational |

www.cocubes.com





BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

Ibrahimpattanam -501 510, Hyderabad

COCUBES ONLINE INTERNSHIP TEST

COCUBES Online Test was conducted for Final Year Students of all Branches at BIET Campus for Internship.



COCUBES Online Test

1. Introduction: The CoCubes online test was conducted at BIET to assess students' employability skills and enhance their placement opportunities. The test aimed to evaluate candidates on various parameters such as aptitude, reasoning, technical knowledge, and communication skills, helping recruiters identify potential candidates for job placements.

2. Objectives of the Test:

- To evaluate students' aptitude, logical reasoning, and problem-solving abilities.
- To assess technical skills relevant to different domains.
- To measure communication and English proficiency for workplace readiness.
- To provide students with insights into their strengths and areas of improvement.
- To connect students with prospective employers based on their test performance.



Vattharam Babu

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpattanam(M)
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3. Test Structure & Components: The CoCubes test comprised multiple sections designed to evaluate different skill sets:

- **Aptitude & Reasoning:** Questions on quantitative aptitude, logical reasoning, and data interpretation.
- **Technical Skills:** Domain-specific questions covering programming, engineering fundamentals, and problem-solving.
- **English Language Proficiency:** Assessment of verbal ability, grammar, and comprehension skills.
- **Coding (for IT students):** Hands-on programming tasks to test coding abilities and logical thinking.
- **Personality & Behavioral Assessment:** Evaluation of workplace behavior, teamwork, and leadership skills.

4. Key Highlights & Outcomes:

- A large number of students participated, gaining valuable test experience.
- The test provided students with a detailed report on their strengths and areas for improvement.
- Companies accessed students' scores, increasing their chances of getting interview calls.
- Many students received shortlisting and interview opportunities based on their performance.
- The test helped students understand industry requirements and skill gaps to work on.

5. Conclusion: The CoCubes online test served as an essential tool for placement preparation, providing students with a platform to evaluate their employability skills. The test not only helped in skill assessment but also connected students with recruiters, increasing job placement prospects.

6. Acknowledgment: We extend our sincere gratitude to CoCubes for organizing this test and providing valuable placement assistance. Special thanks to the faculty, placement cell, and students for their active participation in making this initiative a success



Vattikonda Subu

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