CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

(Autonomous)
Kokapet (Village), Gandipet, Hyderabad, Telangana – 500075
www.cbit.ac.in

Criteria	**Criterion VI: Governance, Leadership and Management**
Key Indicator - 6.5	**Internal Quality Assurance System**
Metric 6.5.3	**Quality assurance initiatives of the institution include:** 1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements 2. Collaborative quality initiatives with other institution(s) 3. Participation in NIRF 4.Any other quality audit recognized by state, national or international agencies (ISO Certification)
COLLABORATIVE QUALITY INITIATIVES WITH OTHER INSTITUTION(S)	

COLLABORATIVE MoUs WITH OTHER INSTITUTIONS

S. No.	Activity Specified in Data Template	Page Number(s)
1.	Collaborative quality initiatives with other institutions-MoUs Description	2-5
2.	MoU copies for IRNSS Navigation Receiver Filed Trial and Data Collection from Space Application Centre, Indian Space Research Organization (ISRO), Department of Space, Government of India, Ahmedabad.	6-25
3.	Collaboration with Jawaharlal Nehru Technological University Kakinada for three years from 2017-18 to 2019-20 to create expertise and cater growing Marine Navigation and Communication research needs in India and abroad.	26-34
4.	Collaboration with HEXAGON 3D INNOVATION LAB for three years from 2017-18 to 2019-20 under its CSR policy is committed to improving the quality of education which benefits the students in particular and the society in general by contributing to educational infrastructure, training and facilities through partnership with institutions, colleges, universities and government and quasi government agencies.	35-40
5.	MoU copy for International research collaboration with Najran University Kingdom of Saudi Arabia (KSA) for two years i.e. 2021-22 & 2022-23 on quality initiatives on research and consultancy.	41-43
6.	Collaboration with ACD Communications Pvt. Ltd for three years w.e.f. 2021-22 on quality initiatives on innovative design and development in the field of electronics and communications, Antennas and GSM/ CDMA Communications.	44-55

Chaitanya Bharathi Institute of Technology(A)

6.5.3 Quality assurance initiatives of the institution include:

2. Collaborative quality initiatives with other institution(s)

1. IGS (IRNSS-GPS-SBAS) Receivers: Department of ECE, CBIT has entered an MoU with SAC, Ahmedabad to perform field trails in the institute premises. Under this MoU, institute has got two receivers. One IRNSS-GPS (Standard Positioning Services) Receiver in 2014 and another IRNSS-GPS-SBAS (Standard Positioning Services) receiver in 2015. Using these two receivers we are evaluating the Performance of IRNSS data in the context of Position and Velocity, and also developing several models for forecasting ionospheric delay. In addition, M.E students also carry out several experiments with IGS Receiver in indoor and outdoor environment for investigating the propagation effects of the signals. Every week, the generated data files are sent SAC, ISRO, Ahmedabad using the File Transfer Protocol (FTP) and which they are uploading on their website. After the expiry of the MoUs, two IRNSS receivers are granted to CBIT to promote research in satellite based navigation and for relevant education and training purposes.

2. Automatic Weather Station (AWS): National Atmospheric Research Laboratory (NARL), an autonomous atmospheric research institute under Department of Space (DOS), has initiated a major scientific project to study the impact of Urbanization on Boundary Layer, Clouds and Rainfall. Hyderabad has been chosen as the test bed for this intense observational field campaign. As part of the project, they are deploying several Automatic Weather Stations (AWS) at different locations in and around Hyderabad in reputed organizations such as IIT, Hyderabad, HCU, JNTUH etc. CBIT is one among them. AWS measures atmospheric parameters (temperature, humidity, pressure, wind speed, wind direction and rainfall) accurately. AWS at CBIT is a part of the network of Hyderabad Camp Observatory for studying effects of rapid urbanization. This station will provide a unique opportunity to work together and understand the complex processes linked with urbanization.

3. MoU between CBIT and UCE, JNTUK: Chaitanya Bharathi Institute of Technology (CBIT), Hyderabad and University College of Engineering (UCE), Jawaharlal Nehru Technological University Kakinada, Kakinada have signed a Memorandum of Understanding on 31st March 2017 in the presence of Vice chancellor of JNTUK. The main aim of this MoU is to create expertise and cater growing Marine Navigation and Communication research needs in India and abroad. To achieve this aim, both colleges will work together in achieving the necessary objectives. The objectives include; i) To establish necessary facilities for carrying out advanced research, ii) To investigate the performance of various Navigation systems and propose mitigation techniques, iii) To Establish a Communication link between JNTUK and Hope Island. iv) To execute sponsored and consultancy projects, to conduct short-term courses, workshops and symposia that will aid manpower development in this area and v) To propose research topics for doing projects at B.E., M.E., and Ph.D level.

The successful completion of this MoU is expected to fulfil the technological gap in the area of marine navigation and communication between India and Western countries. In the long run the research Centre is expected to generate necessary expertise to fulfil manpower needs for both civilian and defence purposes. The advanced research in this important area will lead to generation of major project funding and world class research publications.

4. MoU with HEXAGON 3D INNOVATION LAB

Hexagon capability centre India private limited under its CSR policy is committed to improving the quality of education which benefits the students in particular and the society in general by contributing to educational infrastructure, training and facilities through partnership with institutions, colleges, universities and government and quasi government agencies.

Hexagon and CBIT have agreed jointly to setup a lab in the CBIT campus. Hexagon will provide 20 desktops with monitors with appropriate configuration with OS and Office 2010 licenses. Hexagon also provide their software's CAESAR II, PVELITE, TANK and GT Strudl worth of 6.5 crore rupees at free of cost.

CAESAR II

- The world's most widely used pipe flexibility and stress analysis software
- CAESAR II® is a complete solution that enables quick and accurate analysis of piping systems subjected to a wide variety of loads, taking into account weight, pressure, thermal, seismic and other static and dynamic conditions, based on user-defined variables and accepted industry guidelines.

CAESAR II® analyzes piping systems of any size or complexity, whether the need is to design a new system or trouble-shoot an existing one

PV ELITE

- This pressure vessel and heat exchanger design software is easy to learn and use.
- PV Elite® gives users fast start-up and confidence in their safety code calculations.
- PV Elite® provides engineers, designers, estimators, fabricators and inspectors with solutions that match their pressure vessel and heat exchanger design needs. Because the program is easy to learn and use, it is perfect for both regular and occasional users requiring fast start up and confidence in their safety code calculations.
- PV Elite is a complete solution for the quick and intuitive design of new pressure vessels, and it also evaluates and re-rates existing vessels, including Fitness for Service analysis. The program considers the whole vessel, addressing all of the wall thickness rules and stress analysis requirements for vertical towers, horizontal vessels and heat exchangers.

TANK

- TANK™ is a comprehensive, easy-to-use program for the design, analysis and evaluation of welded steel oil storage tanks according to American Petroleum Institute (API) Standards 620, 650, and 653.
- TANK™ provides owners, operators, and engineering firms with quick and accurate designs for new tank construction and evaluation of existing tanks.
- TANK provides for the design and analysis of wall and bottom plate thickness, supported cone roofs, service and maintenance considerations, and other factors affecting tank design and safety, such as internal pressure, shell settlement, seismic and wind.
- TANK saves time by letting users select material information automatically from its extensive built-in material databases.

GT STRUDL

- Structural analysis and design modeling software is used by structural engineering professionals for concrete, steel, and reinforced concrete design of structures.
- For nearly 40 years, GT STRUDL® has offered structural engineers a complete design solution, and we've now incorporated 3D CAD modeling and 64-bit high-performance computation solvers into all versions. The structural analysis software is a high-quality, fully-integrated, database-driven system for comprehensive frame and finite element analysis and steel and reinforced concrete design.
- GT STRUDL includes all the tools necessary to analyze a broad range of structural engineering and finite element analysis problems, including linear and nonlinear static and dynamic analysis, and it can do so accurately in a fraction of the time of most other solutions. The new CAD modeler user interface has an AutoCAD-based environment that allows structural engineers to instantly see analysis and design results.

5. International research collaboration

As part of International collaboration between Chaitanya Bharati Institute of Technology (CBIT) and Najran University Kingdom of Saudi Arabia (KSA), had series of meetings and initiated to execute a consultancy project titled "Enhancement of the performance of different renewable energy sources using modern techniques" for the duration of 2 years. Dr. Belqasem Aljafari, Ph.D. Assistant Professor, Department of Electrical Engineering is a consultant from Najran University, KSA and Dr. T. Sudhakar Babu, Associate Professor, CBIT, India is a Principal Investigator of the project to execute the consultancy work.

Project Total Sanctioned Amount : Twenty Six Thousand Four Hundred US Dollars. (US $ 26400)

6. Collaboration with ACD Communications

On August 19, 2022, the Department of ECE at CBIT signed an agreement with Hyderabad's ACD Communications Pvt. Ltd. The following modalities are agreed under this MoU: 2 weeks or more of industrial training, Project work for BE, and ME final year students, An internship that lasts at least one semester will contribute to the development of the curriculum and guest lectures, faculty visits, one-day industrial visits, research services in areas of interest to industry, consultancy services, and PhD guidance. Main focus on innovative design and development in the field of electronics and communications, Antennas and GSM/ CDMA Communications.

-oOo-

Memorandum of Understanding

For

IRNSS Navigation Receiver Field Trial and Data Collection

Between

Space Applications Centre
Indian Space Research Organization
Department of Space, Government of India
Ahmedabad – 380015

And

Chaitanya Bharathi Institute of Technology
(Affiliated to Osmania University)
Chaitanya Bharathi (Post), Gandipet,
Hyderabad- 500075. India

November, 2014

This MOU is entered into on 12th day of November, 2014

BETWEEN

Space Applications Centre, Jodhpur Tekra, Ambawadi Vistar P.O., Ahmedabad, 380015, a centre of Indian Space Research Organization, Department of Space, Government Of India (hereinafter called "SAC" which expression shall where the context so admits include its successors and permitted assignees) of the one part,

AND

Chaitanya Bharathi Institute of Technology (A) (Affiliated to Osmania University) Accredited by NBA (AICTE) and NAAC (UGC),an ISO 9001-2008 Certified Institution ,Chaitanya Bharathi (Post), Gandipet, Hyderabad-500075. India.

1.0 Preamble:

Whereas, Space Applications Centre (hereinafter referred to as "SAC" which expression shall where the context so admits include its successors and permitted assignees) is a centre of ISRO and Chaitanya Bharathi Institute of Technology(A) (hereinafter referred to as "CBIT" which expression shall where the context so admits include its successors and permitted assignees) is affiliated to Osmania University"

Whereas, SAC is involved in design and development of space-borne instruments for ISRO missions and development and operationalization of applications of space technology for national development. The applications cover communication, broadcasting, navigation, disaster monitoring, meteorology, oceanography, environment monitoring and natural resources survey. SAC designs and develops all the transponders for the INSAT and GSAT series of communication satellites and the optical and microwave sensors for IRS series of remote sensing satellites, Navigation payloads for IRNSS and GAGAN programme. Further, SAC develops the ground transmit/receive systems (earth stations/ ground terminals) and data/image processing systems;

Whereas, CBIT is one of the Premier Engineering Colleges for imparting Engineering education. This is the first Engineering College in private sector, established in 1979 and has produced more than 20,000 successful engineers in all walks of life including entrepreneurs, academicians and research engineers etc. The Institute has good infrastructural facilities and has highly qualified and experienced faculty with research background.

2.0 Effective Date and Duration of MoU:

This MoU is effective from the date of its signing and is valid for a duration 2 (Two) years from the date of signing. It may be extended further in writing based on mutual consent.

3.0 Scope of MoU:

Scope of the MoU involves Site identification, site preparation, and Installation of the IRNSS receiver. IRNSS Navigation Data collection and analysis to be carried out on regular basis for verification and for other mutually agreed topics of research for both parties. Depending upon the requirement certain scientific experiments can be planned and executed within overall MoU umbrella. With mutual consent, both the Parties can extend the period of data collection and observation locations (sites).

4.0 Methodology:

4.1 Suitable Site Selection
4.2 Installation and commissioning of IRNSS Receiver
4.3 Continuous IRNSS and GPS data logging, analysis of the data
4.4 Transmission of IRNSS and GPS data to SAC as and when demanded by SAC

Data transmission mechanism can be mutually worked out.

5.0 Deliverables:

5.1 SAC deliverables

i. IRNSS receiver and data processing systems as detailed in Annexure-1.
ii. User and operations manual

iii. Format for Monthly status report

5.2 CBIT deliverables

i. All necessary logistics so that IRNSS Receiver shall be established to collect positional data in raw format received from IRNSS, GPS constellation with 1 sec update rate
ii. Send a Monthly status Report on usage/performance of receiver to SAC in a prescribed format.
iii. Send the Receiver data to SAC as and when asked for

6.0 Guidelines on Data Usage:

The data is to be used strictly for internal research purpose only. The Receiver should not be used for any operational purpose. SAC does not take any responsibility for any loss, damage etc. that may occur to the user because any unauthorized use.

7.0 Responsibility of Each Party:

SAC and CBIT shall jointly work towards IRNSS system verification using data collected from IRNSS receivers. In addition, following are the specific responsibilities.

7.1 CBIT:

7.1.1 All the logistics support, data collection site preparation, required for setting up of IRNSS Receiver will be provided by CBIT.
7.1.2 Installation of the IRNSS Receiver at the site will be carried out by CBIT
7.1.3 Utmost care to be taken in handling the IRNSS Receiver.
7.1.4 Send the Receiver Data to SAC when asked for
7.1.5 Safety and security of the IRNSS Receiver
7.1.6 IRNSS data reception, processing, archival to be done by CBIT.

7.2 SAC:

7.2.1 SAC will provide IRNSS Receiver Unit(s) and Receiver operation manual on returnable basis (As detailed in Annexure-1)

7.2.2 SAC will provide technical assistance to CBIT in working out modalities of Data collection, data sharing, etc.

7.2.3 SAC will provide technical assistance to CBIT in proper operation and maintenance of IRNSS Receiver

7.2.4 SAC will provide technical assistance to CBIT in identifying appropriate research areas considering capabilities of this Receiver

8.0 Project schedule:

8.1 Selection of Suitable Site(s) within 10 days from the date of signing MoU

8.2 Installation and Commissioning of IRNSS Receiver within 10 days after receipt of receiver by CBIT

8.3 Regular data collection and analysis will be carried out for the duration of the MoU from the date of Installation and Commissioning of IRNSS Receiver

9.0 Training:

SAC will provide necessary training and guidelines for site identification, receiver operations, data collection, processing and data transfer

10.0 Project Monitoring:

10.1 SAC and CBIT shall identify focal person(s) who shall be responsible for organizational matters and interfacing for day to day operation, such as functioning of IRNSS Receiver, security etc. Each party shall pursue its independent research using data from this IRNSS Receiver, with mutual consultation.

10.2 A periodic monthly status report should be generated by CBIT regarding Receiver operations.

11.0 Functionaries

Dr.A.D.Sarma , Dr.N.V.Koteswara Rao, Smt.N.Alivelu Manga , Sri.P.Sathish (CBIT Focal person)

Shri Yagnesh Patel Sci/Engr, SNAA

(SAC Focal person) Shri Atul Shukla, GH, SNAA

12.0 Confidentiality:

12.1 During the tenure of MoU and thereafter both parties undertake on their behalf and on behalf of their employees/representatives to maintain strict confidentiality and prevent disclosure thereof of all the information and data exchanged/generated pertaining to this agreement. However, the data may be published and shared jointly for scientific publication after mutual consent in writing.

12.2 CBIT will not disclose any research result and Foreground information, generated out of or involving the data, its derivative or information thereof from the IRNSS Receiver established (at given site) as per terms of this MoU to any third party without seeking prior written permission.

13.0 Intellectual Property Rights :

All the research results and foreground information as well as foreground Intellectual Property Rights, generated out of or involving the data, its derivative or information thereof, from IRNSS Receiver and sites established as per terms of this MoU whether or not legally protected, shall be owned by SAC. CBIT will be free to use such data for their internal R&D purposes with intimation to SAC.

Notwithstanding any provisions mentioned above or any future licensing agreements, SAC shall be deemed to have all rights including non-exclusive, irrecoverable and royalty-free license for the unlimited development and use of any and all Foreground information and Foreground Intellectual Property Rights, generated out of or involving the data, its derivative or information thereof, from the IRNSS Receiver established (at given site) as per terms of this MoU, whether or not legally protected, for the purposes of its own applications.

14.0 Change In Scope of Work:

Any change in scope of work would be with mutual consent of both the parties in writing.

15.0 Modifications to MoU:

15.1 Any amendment or modifications of this MOU shall be in writing by both parties.

15.2 The modifications/changes shall be effective from the date on which they are made/ executed, unless otherwise agreed to.

16.0 Force Majeure:

Neither party shall be held responsible for non fulfillment of their respective obligation under this MoU due to circumstances beyond their control but not limited to war, flood, cyclones, riots, strikes etc. If such condition continues beyond six months, the parties shall then mutually decide about the future course of action. Either party shall intimate each other of any such event.

17.0 Indemnity:

CBIT shall exercise reasonable skill, care and diligence in the performance of this MoU activity and indemnify and keep indemnified SAC in respect of any loss, damage or claim howsoever arising out of related to breach of MoU, statuary duty or negligence by CBIT or its employees, agents or subcontractors in relation to the performance or otherwise of the services to be provided under this MoU.

18.0 Termination of MoU:

18.1 During the validity of the MoU, if it is found that if the IRNSS Receiver is not in use, misuse or due care is not taken, SAC has right to recall the IRNSS Receiver established as per terms of this MoU with intimation to CBIT.

18.2 Similarly if CBIT considers it necessary to dismantle the IRNSS Receiver established as per terms of this MoU for unavoidable reason at a given site, CBIT will try to provide an alternate site for the IRNSS observations and facilitate SAC to relocate IRNSS Receiver. If however, CBIT fails in providing such alternate, SAC will be free to dismantle/uninstall and remove the IRNSS Receiver established as per terms of this MoU along with accessories.

19.0 Arbitration:

In the event of any dispute or difference between the parties hereto, such disputes or differences shall be resolved amicably jointly by Director, SAC and Director, CBIT.

20.0 Jurisdiction: Ahmedabad shall be the jurisdiction.

In witness whereof, the parties hereto have signed this MOU on the 12th November, 2014

12/11/14

Dr B. CHENNA KESAVA RAO
PRINCIPAL

Shri K S Parikh
Dy. Director, SNAA
Space Applications Centre, ISRO
Ahmedabad.

के. एस. परीख/ K.S. PARIKH
उप निदेशक / Dy. Director
सेटकॉम एवं नौसंचालन अनुप्रयोग क्षेत्र
SATCOM & Navigation Application Area
अंतरिक्ष उपयोग केंद्र (इसरो)
Space Applications Centre (ISRO)
भारत सरकार / Govt. of India
अहमदाबाद / Ahmedabad-380 015.

Prof. ~~A. D. Sharma~~
~~EC Engg. Dept~~. CBIT
Hyderabad

PRINCIPAL
Chaitanya Bharathi Institute of Technology
HYDERABAD-500 075.

Witness

V.K. PANK
Head, SNTD,
DPD, User Rx.

Witness:

Prof. ECE Dept.
CBIT Hyd-75

ANNEXURE – I

Sr. No.	Name of Item	Qty	Remarks
1	User Receiver (IDU)	1	Main Unit
2	Data Processing machine	1	
3	Antenna With Mounting Stand (ODU)	1	
4	Antenna Cable (RF)	1	
5	RS-232 Cable	2	
6	RS-232 to USB Converter plus cable	1	
7	AC Mains Power cord	1	
8	LAN Cable	1	
9	USB cable	2	
10	Battery	1	For field usage
11	Software CD-ROM	1	
12	User Manual & Driver CD-ROM	1	

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Between

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Department of Space, Government of India
Ahmedabad – 380015

And

Chaitanya Bharathi Institute of Technology (A)
(Affiliated to Osmania University)
Chaitanya Bharathi (Post), Gandipet,
Hyderabad- 500075. India

This MOU is entered into on 7 day of DEC, 2015

BETWEEN

Space Applications Centre, Jodhpur Tekra, Ambawadi Vistar P.O., Ahmedabad, 380015, a centre of Indian Space Research Organization, Department of Space, Government Of India (hereinafter called "SAC" which expression shall where the context so admits include its successors and permitted assignees) of the one part,

AND

Chaitanya Bharathi Institute of Technology (A) (Affiliated to Osmania University)Accredited by NBA (AICTE) and NAAC (UGC),an ISO 9001-2008 Certified Institution, Chaitanya Bharathi (Post), Gandipet, Hyderabad- 500075. India.

1.0 Preamble:

Whereas, Space Applications Centre (hereinafter referred to as "SAC" which expression shall where the context so admits include its successors and permitted assignees) of the one part and Chaitanya Bharathi Institute of Technology (A) (hereinafter referred to as "CBIT" which expression shall where the context so admits include its successors and permitted assignees) of the one part CBIT, both are parties to this MoU;

Whereas, SAC is involved in design and development of space-borne instruments for ISRO missions and development and operationalization of applications of space technology for national development. The applications cover communication, broadcasting, navigation, disaster monitoring, meteorology, oceanography, environment monitoring and natural resources survey. SAC designs and develops all the transponders for the INSAT and GSAT series of communication satellites and the optical and microwave sensors for IRS series of remote sensing satellites, Navigation payloads for IRNSS and GAGAN programme. Further, SAC develops the ground transmit/receive systems (earth stations/ ground terminals) and data/image processing systems;

Whereas,
CBIT is one of the Premier Engineering Colleges for imparting Engineering education. This is the first Engineering College in private sector, established in1979 and has produced more than 20,000 successful engineers in all walks of life including entrepreneurs, academicians and research engineers etc. The Institute has good infrastructural facilities and has highly qualified and experienced faculty with research background.

2.0 Effective Date and Duration of MoU:

This MoU is effective from the date of its signing and is valid for a duration 2 (Two) years from the date of signing. It may be extended further in writing based on mutual consent.

3.0 Scope of MoU:

Scope of the MoU involves Site identification, site preparation, and Installation of the IRNSS receiver. IRNSS Navigation Data collection and analysis to be carried out on regular basis for verification and for other mutually agreed topics of research for both parties. Depending upon the requirement certain scientific experiments can be planned and executed within overall MoU umbrella. With mutual consent, both the Parties can extend the period of data collection and observation locations (sites).

4.0 Methodology:

4.1 Suitable Site Selection
4.2 Installation and commissioning of IRNSS Receiver
4.3 Continuous IRNSS and GPS data logging, analysis of the data
4.4 Transmission of IRNSS and GPS data to SAC as and when demanded by SAC
Data transmission mechanism can be mutually worked out.

5.0 Deliverables:

5.1 SAC deliverables { i, ii & iii through ACCORD Software & Systems Ltd}

i. IRNSS receiver and data processing systems as detailed in Annexure-1. (Delivery @ site)
ii. Number of receiver units allocated as per SAC receiver Allocation committee's recommendation in view of your response to EOI for IRNSS Receiver deployment
iii. User and operations manual (Delivery @ site)
iv. Format for Quarterly (Every Three months) status report

5.2 CBIT deliverables

i. All necessary logistics so that IRNSS Receiver shall be established to collect positional data in raw and RINEX format received from IRNSS, GPS constellation with 1 sec update rate
ii. Send a Quarterly status Report on usage/performance of receiver to SAC in a prescribed format.
iii. Send the Receiver data to SAC as and when asked for

6.0 Guidelines on Receiver / Data Usage:

The data is to be used strictly for internal research purpose only. The Receiver is for experimentation and field trial only and should not be used for any operational purpose. IRNSS constellation is evolving and has not been declared operational for Position Navigation and Time. So the results/performance of IRNSS should be viewed in that context.

7.0 Responsibility of Each Party:

SAC and CBIT shall jointly work towards IRNSS system verification using data collected from IRNSS receivers. In addition, following are the specific responsibilities.

7.1 CBIT:

7.1.1 All the logistics support, site identification, site preparation, required for setting up of IRNSS Receiver will be provided by CBIT.
7.1.2 Installation of the IRNSS Receiver at the site will be carried out by ACCORD SYSTEMS
7.1.3 Utmost care to be taken in handling the IRNSS Receiver.
7.1.4 Send the Receiver Data to SAC when asked for
7.1.5 Safety and security of the IRNSS Receiver
7.1.6 IRNSS data reception, processing, archival to be done by CBIT.

i. IRNSS receiver and data processing systems as detailed in Annexure-1. (Delivery @ site)
ii. Number of receiver units allocated as per SAC receiver Allocation committee's recommendation in view of your response to EOI for IRNSS Receiver deployment
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7.1.3 Utmost care to be taken in handling the IRNSS Receiver.
7.1.4 Send the Receiver Data to SAC when asked for
7.1.5 Safety and security of the IRNSS Receiver
7.1.6 IRNSS data reception, processing, archival to be done by CBIT.

7.2 SAC:

7.2.1 SAC will provide IRNSS Receiver Unit(s) and Receiver operation manual(s) on returnable basis (As detailed in Annexure-1)

7.2.2 SAC will provide technical assistance to CBIT in working out modalities of Data collection, data sharing, etc.

7.2.3 SAC will provide technical assistance to CBIT in proper operation and maintenance of IRNSS Receiver

7.2.4 SAC will provide technical assistance to CBIT in identifying appropriate research areas considering capabilities of this Receiver

8.0 Project schedule:

8.1 Selection of Suitable Site(s) within 10 days from the date of signing MoU by CBIT

8.2 Installation and Commissioning of IRNSS Receiver by M/S ACCORD.

8.3 Regular data collection and analysis will be carried out for the duration of the MoU from the date of Installation and Commissioning of IRNSS Receiver

9.0 Training:

M/S ACCORD will provide necessary training and guidelines for site identification, receiver operations. SAC will provide guidelines for data collection, processing and data transfer

10.0 Project Monitoring:

10.1 SAC and CBIT shall identify focal person(s) who shall be responsible for organizational matters and interfacing for day to day operation, such as functioning of IRNSS Receiver, security etc. Each party shall pursue its independent research using data from these IRNSS Receiver, with mutual consultation.

10.2 A periodic Quarterly status report should be generated by CBIT regarding Receiver operations. A User meet to share results, experience will be held at SAC every six months.

11.0 Functionaries (Typically 2)

Dr.A.D.Sarma , Dr.N.V.Koteswara Rao, Smt.N.Alivelu Manga , Sri.P.Sathish Sri.T.Sridher (CBIT Focal persons)

ATUL P. SHUKLA, YAGNESH R. PATEL

(SAC Focal persons)

12.0 Confidentiality:

12.1 During the tenure of MoU and thereafter both parties undertake on their behalf and on behalf of their employees/representatives to maintain strict confidentiality and prevent disclosure thereof of all the information and data exchanged/generated pertaining to this agreement. However, the data may be published and shared jointly for scientific publication after mutual consent in writing.

12.2 CBIT will not disclose any research result and Foreground information, generated out of or involving the data, its derivative or information thereof from the IRNSS Receiver established (at given site) as per terms of this MoU to any third party without seeking prior written permission.

13.0 Intellectual Property Rights :

All the research results and foreground information as well as foreground Intellectual Property Rights, generated out of or involving the data, its derivative or information thereof, from IRNSS Receiver and sites established as per terms of this MoU whether or not legally protected, shall be owned by SAC. CBIT will be free to use such data for their internal R&D purposes with intimation to SAC.

Notwithstanding any provisions mentioned above or any future licensing agreements, SAC shall be deemed to have all rights including non-exclusive, irrecoverable and royalty-free license for the unlimited development and use of any and all Foreground information and Foreground Intellectual Property Rights, generated out of or involving the data, its derivative or information thereof, from the IRNSS Receiver established (at given site) as per terms of this MoU, whether or not legally protected, for the purposes of its own applications.

14.0 Change In Scope of Work:

Any change in scope of work would be with mutual consent of both the parties in writing.

15.0 Modifications to MoU:

15.1 Any amendment or modifications of this MOU shall be in writing by both parties.

15.2 The modifications/changes shall be effective from the date on which they are made/ executed, unless otherwise agreed to.

16.0 Force Majeure:

Neither party shall be held responsible for non fulfillment of their respective obligation under this MoU due to circumstances beyond their control but not limited to war, flood, cyclones, riots, strikes etc. If such condition continues beyond six months, the parties shall then mutually decide about the future course of action. Either party shall intimate each other of any such event.

17.0 Indemnity:

CBIT shall exercise reasonable skill, care and diligence in the performance of this MoU activity and indemnify and keep indemnified SAC in respect of any loss, damage or claim howsoever arising out of related to breach of MoU, statuary duty or negligence by CBIT or its employees, agents or subcontractors in relation to the performance or otherwise of the services to be provided under this MoU.

18.0 Termination of MoU:

18.1 During the validity of the MoU, if it is found that if the IRNSS system is not In use, misuse or due care is not taken, SAC has right to dismantle/uninstall the IRNSS Receiver established as per terms of this MoU with intimation to CBIT.

18.2 Similarly if CBIT considers it necessary to dismantle the IRNSS Receiver established as per terms of this MoU for unavoidable reason at a given site, CBIT will try to provide an alternate site for the IRNSS observations and facilitate SAC to relocate IRNSS Receiver. If however, CBIT fails in providing such alternate, SAC will be free to dismantle/uninstall and remove the IRNSS Receiver established as per terms of this MoU along with accessories.

19.0 Arbitration:

In the event of any dispute or difference between the parties hereto, such disputes or differences shall be resolved amicably jointly by Director, SAC and Principal, CBIT.

20.0 Jurisdiction: Ahmedabad shall be the jurisdiction.

In witness whereof, the parties hereto have signed this MOU on the

Tapan Misra
7/12/15

(Shri TAPAN MISRA)
Director,
Space Applications Centre (SAC),
Ahmedabad

तपन मिश्रा/ TAPAN MISRA
निदेशक / Director
अंतरिक्ष उपयोग केंद्र (इसरो)
Space Applications Centre (ISRO)
भारत सरकार / Government of India
अहमदाबाद / Ahmedabad-380 015.

7/12/15

(Dr.B.Chennakesava Rao)
Principal
Chaitanya Bharathi Institute of
Technology (CBIT)
Hyderabad

PRINCIPAL
Chaitanya Bharathi Institute
of Technology
GANDIPET, R. R. (Dist.)
HYDERABAD - 500 075

A.D. Sarma

(Dr. A.D. SARMA)

Annexure-1
List of deliverables for (1 set of) IRNSS/GPS/SBAS Receiver

Sl. No.	Item Description	Qty
1.	IRNSS/GPS/SBAS Receiver	1
2.	AC-DC Adapter	1
3.	DC-DC Adapter	1
4.	Antenna	1
5.	Antenna base plate	1
6.	Antenna mounting rod	1
7.	Battery	1
8.	Charger for battery	1
9.	TNC (M) to TNC (M),15 m low-loss RF cable	1
10.	TNC (M) to TNC (M), 2 m low-loss RF cable	1
11.	SMA (M) to SMA (M), 2 m RF cable	2
12.	Cat5E Ethernet cable	1
13.	RS232-USB converter cable	1
14.	DC-DC adapter input cable	1
15.	DC-DC adapter output cable	1
16.	Battery to receiver power cable	1
17.	Car Cigarette connector to receiver power cable	1
18.	3 Pin AC power cable for charger	1
19.	User Guide	1
20.	CD containing GUI & other drivers	1
21.	M4 Allen key	1
22.	Adjustable Spanner	1
23.	M4 Allen screws with nuts for receiver	4
24.	M4 Allen screws with nuts for DC-DC adapter	4
25.	M4 Allen screws with nuts for antenna	4
26.	Carry Case	1

भारत सरकार
अन्तरिक्ष विभाग
राष्ट्रीय वायुमंडलीय अनुसंधान प्रयोगशाला
पोस्ट बॉक्स नं.123, एसवीयू केंपस डाक घर
तिरुपति-517 502
साइट : पोस्ट व ग्राम, गादंकी-517 112
चित्तूर जिला, आंध्र प्रदेश
दूरभाष: + 91-8585-272024, 272020
पैक्स: + 91-8585-272018/21

GOVERNMENT OF INDIA
DEPARTMENT OF SPACE
NATIONAL ATMOSPHERIC RESEARCH LABORATORY
P.B. No. 123, SVU Campus P.O
TIRUPATI-517 502
Site : P.O & Vill. Gadanki-517 112
Chittoor Dist., Andhra Pradesh
Phone : + 91-8585-272024, 272020
Fax: + 91-8585-272018/21

Dr. Amit Kumar Patra
Director

11 March 2020

To
Dr. A. D. Sarma
Director, Research and Development
Chaitanya Bharathi Institute of Technology (CBIT)
Gandipet, Hyderabad-500075, Telangana, India

Dear Dr. Sarma,

Sub: Request for the installation of meteorological instruments in your institute – Reg.

National Atmospheric Research Laboratory (NARL), an autonomous atmospheric research institute under Department of Space (DOS), has initiated a major scientific project to study the impact of Urbanization on Boundary Layer, Clouds and Rainfall. Hyderabad has been chosen as the test bed for this intense observational field campaign. As part of the project, we are deploying several atmospheric instruments at different locations in and around Hyderabad. We would like to install an Automatic Weather Station (AWS) in CBIT, Hyderabad. The AWS occupies an area of 1 m x 1 m, but requires an open space to measure atmospheric parameters (temperature, humidity, pressure, wind speed, wind direction and rainfall) accurately. As it comes with a solar panel and battery, normal power supply is not required. Our measurements could also be used by the research community in your institute. The proposed period of the project is for 3 years and will be extended depending on the requirement.

I am happy to invite you (your colleagues) to participate in this project of national importance and permit for the installation of the AWS. It is to further inform you that Dr. T. Narayana Rao (Sci/Eng - SG and Head, Clouds & Convective Systems Group, NARL) and his team will be coordinating the project from NARL side. I would be glad if you can accept our invitation and identify the persons for coordinating the activities at your institute.

Thanking you and with warm regards,

Yours sincerely,

Amit Kr Patra

(Amit Kumar Patra)

Memorandum of Understanding

for

Establishing Marine Navigation and Communication Research Centre (MNCRC) for Research and Development Activities

between

Chaitanya Bharathi Institute of Technology

(Autonomous Institution)

Chaitanya Bharathi (Post), Gandipet,

Hyderabad - 500 075, Telangana, India

www.cbit.ac.in

and

Jawaharlal Nehru Technological University Kakinada

Kakinada-533 003, Andhra Pradesh, India

www.jntuk.edu.in

Memorandum of Understanding

for

Establishing Marine Navigation and Communication Research Centre (MNCRC) for Research and Development Activities

between

Chaitanya Bharathi Institute of Technology

(Autonomous Institution)
Chaitanya Bharathi (Post), Gandipet, Hyderabad - 500 075,
Telangana, India
www.cbit.ac.in

and

Jawaharlal Nehru Technological University Kakinada

Kakinada - 533 003, Andhra Pradesh, India
www.jntuk.edu.in

This MOU is entered into on the 31st day of March, 2017

BETWEEN

Chaitanya Bharathi Institute of Technology (A), Chaitanya Bharathi (Post), Gandipet, Hyderabad- 500075, Telangana, India

AND

Jawaharlal Nehru Technological University, Kakinada, Kakinada-533003, Andhra Pradesh, India

1.0 Preamble

WHEREAS Chaitanya Bharathi Institute of Technology (A) (hereinafter referred to as "CBIT" which expression shall where the context so admits include its successors and permitted assignees) of the one part and Jawaharlal Nehru Technological University, Kakinada, Kakinada (hereinafter referred to as "JNTUK" which expression shall where the context so admits include its successors and permitted assignees) of the other part; both Parties enter into this MOU to collaborate their efforts to establish and develop a 'Marine Navigation and Communication Research Centre', Academic Exchange and Co-Operation in Teaching, Training, Research and Development in areas with the following details.

1. To collaborate in establishing "**Marine Navigation and Communication Research Centre**" within the premises of JNTUK
2. To jointly promote Research and Development activities especially in the area of "**Marine Navigation and Communication**".
3. To promote exchange of information/data and materials of mutual interest.
4. To promote and facilitate the exchange of research and teaching staff as well as students
5. To organize international conferences, workshops and symposiums
6. Other forms of co-operation which is to be arranged jointly by both Parties
7. With mutual consent, the other constituent colleges of JNTUK may also participate in the programs undertaken under this MoU

BOTH PARTIES mutually agree to the following:

2.0 Effective Date and Duration of MoU

This MoU is effective from the date of its signing and is valid for a duration 3 (Three) years from the date of signing. It may be extended further in writing based on mutual consent.

3.0 Scope of MoU

Establishment and operationalization of Marine Navigation and Communication Research Centre (MNCRC) and apply and execute collaborative research projects on mutually interested topics. Depending upon the need and mutual convenience certain experiments can be planned and executed within overall MoU umbrella. Also, work towards establishing data link between 'Hope Island' and mainland is to be carried out.

4.0 Methodology

4.1. Identification of suitable space for establishing the research Centre at JNTUK.

4.2. Providing the basic infrastructure facilities in the Centre such as, uninterrupted internet service, Office tables and chairs, Desktops, etc. at JNTUK

4.3. Initiating research projects in the area of mutual interest to work in the Centre.

4.4. Planning training programs / short courses / workshops / conferences / symposiums involving experts from both institutions and also from outside.

5.0 Deliverables

As such no strict deadlines for achieving the objectives are mentioned in the earlier sections. However, a reasonable and visible progress is expected in the first 3 years.

6.0 Technical specifications

The participating institutions are required to extend the technical facilities such as library, computation systems, internet as and when the faculty / staff / students visit the other institution. As and when any equipment is installed, the maintenance, operation and data acquisition are the responsibilities of the host institution.

7.0 Applicable documents

Any material relevant to the implementation of objectives will be shared by both institutions.

8.0 Guidelines on Data Usage

Data security is not a major concern. The detailed guidelines for any acquired data use appear in **IPR** section.

9.0 Responsibility of Each Party

CBIT and JNTUK shall jointly work towards fulfilling the objectives mentioned in this MoU.

In addition, following are the specific responsibilities.

9.1. CBIT

9.1.1 CBIT will propose planning of setup of equipment and infrastructure for the research center at JNTUK.

9.1.2 Initiation for proposing new projects will be carried out by CBIT and JNTUK.

9.1.3 Initiation for organizing the joint training programs will be carried out by CBIT.

9.1.4 CBIT will work out the modalities of Data collection, data sharing etc.

9.1.5 Data reception, processing, archival to be done jointly by CBIT and JNTUK.

9.2. JNTUK

9.2.1 JNTUK will provide necessary space (approximately 600 sq.ft.) along with infrastructure facilities for the centre and same will remain the property of JNTUK.

9.2.2 All the logistics support required for setting up of centre will be provided by JNTUK.

9.2.3 JNTUK will provide secretarial assistance on need basis.

9.2.4 JNTUK will provide all the necessary facilities for organizing any training programs etc.

9.3. Collaborative Projects

In collaborative projects, the equipment and other items procured under that project belong to the institution to which principal investigator belongs unless and otherwise, it is specifically mentioned in a different way in the project proposal.

10.0 Project schedule

10.1. Selection of suitable site for establishing MNCRC within one month from the date of signing MoU

10.2. Applying of a research project within 6 months after establishing the Centre.

10.3. Organizing a training program within 1 year after the obtaining the project from a sponsorer.

11.0 Training

As such no formal training is required. However, informal training can be imparted by experts from both JNTUK and CBIT.

12.0 Project Monitoring

12.1. JNTUK and CBIT shall identify focal person(s) who shall be responsible for organizational matters and interacting for day to day operation, such as functioning of newly established Centre, further improvements etc.

12.2. Each party shall pursue its own research that involves data from the equipment installed, with mutual consultation.

12.3. A periodic (Quarterly) status report should be generated jointly by CBIT and JNTUK regarding the MNCRC.

13.0 Implementation

Both Parties shall strive for establishing MNCRC at JNTUK and exchange in research, teaching and training programs whenever the opportunity arises.

14.0 Laws and Regulation

This MOU is subjected to the laws and regulations of their respective states.

15.0 Financial Arrangements

15.1. All expenses including salary, travel, living and varied costs and expenses shall be borne by their respective parent institution, unless the parties agree otherwise.

15.2. Any profit arising from this MOU shall be distributed between both parties, the quantum of which shall be determined by both the parties.

16.0 Functionaries

Prof. A.D. Sarma, Prof. N.V. Koteswara Rao and Prof. D. Krishna Reddy
(Authorized representatives - CBIT TEAM)

Prof. A.M. Prasad, Dr. B. Leela Kumari and Dr. T. S. N. Murthy
(Authorized representatives - JNTUK TEAM)

17.0 Confidentiality

17.1. The parties to MoU will maintain utmost confidentiality in sharing data.

17.2. During the tenure of MoU and thereafter both parties undertake on their behalf and on behalf of their employees / representatives to maintain strict confidentiality and prevent disclosure thereof of all the information and data

exchanged/generated pertaining to this agreement. However, the data may be published and shared jointly for scientific publication after mutual consent in writing.

17.3. Both Parties undertake to observe confidentiality towards other parties not concerned or connected with this MOU. Any confidential information disclosed to either party pursuant to this MOU shall not without prior written consent of the other Party be disclosed to a third Party or be used for any purpose not expressly permitted in writing by the other Party.

17.4. The confidentiality provisions apply to all confidential information exchanged including any confidential information exchanged in preliminary discussions and during negotiations relating to matters within the scope of this MOU.

17.5. For purposes of this MOU, "confidential information" includes all technical know-how, financial information and other commercially valuable information in whatever form including unpatented inventions, trade secrets formulas, graphs, drawings, designs, tables, flow charts, process charts, biological materials, samples, devices, models and other materials of whatever description which the disclosing Party claims is confidential to itself and over which it has full control and include all other such information that may be in the possession of the disclosing party's employees or management.

18.0 Intellectual Property Rights

Both Parties shall abide by the laws and regulations on intellectual property rights of their respective states and institutions.

All the research results and foreground information as well as foreground Intellectual Property Rights, generated out of or involving the data, its derivative or information thereof, from the systems and sites established as per terms of this MoU whether or not legally protected, shall be owned by both JNTUK and CBIT and will be free to use such data for their internal R&D purposes with intimation to each other.

JNTUK / CBIT will not disclose any research result and foreground information, generated out of or involving the data, its derivative or information thereof from the systems established as per terms of this MoU to any third party without seeking prior written permission.

Notwithstanding any provisions mentioned above or any future licensing agreements, both parties shall be deemed to have all rights including non-exclusive, irrecoverable and royalty-free license for the unlimited development and use of any and all foreground information and

foreground Intellectual Property Rights, generated out of or involving the data, its derivative or information thereof, from the systems established (at given site) as per terms of this MoU, whether or not legally protected, for the purposes of its own applications.

19.0 Changes in Scope of Work

Any change in scope of work would be with mutual consent of both the parties in writing.

20.0 Modifications to MoU

21.1. Any amendment or modifications of this MOU shall be in writing by both the parties.

21.2. The modifications/changes shall be effective from the date on which they are made/ executed, unless otherwise agreed to.

21.0 Force Majeure

Neither party shall be held responsible for non-fulfillment of their respective obligation under this MoU due to circumstances beyond their control but not limited to war, flood, cyclones, riots, strikes etc. If such condition continues beyond six months, the parties shall then mutually decide about the future course of action. Either party shall intimate each other of any such event.

22.0 Indemnity

Both parties shall exercise reasonable skill, care and diligence in the performance of this MoU activity and indemnify and keep indemnified each other party in respect of any loss, damage or claim howsoever arising out breach of MoU terms, statuary duty or negligence by either of the parties or its employees, agents or subcontractors in relation to the performance or otherwise of the services to be provided under this MoU.

23.0 Termination of MoU

23.1. During the validity of the MoU, each party is free to dismantle the systems established as per terms of this MoU with intimation to other party.

23.2. Similarly, if JNTUK considers it necessary to dismantle the Centre established as per terms of this MoU for unavoidable reason at a given site, JNTUK will try to provide an alternate site to relocate the Centre. If however, JNTUK fails in providing such alternate, CBIT will be free to withdraw from MoU.

24.0 Arbitration

In the event of any dispute or difference between the parties hereto, such disputes or differences shall be resolved amicably jointly by ~~Registrar~~ Principal, UCEK, JNTUK and Principal, CBIT.

25.0 Jurisdiction

Hyderabad shall be the jurisdiction.

In witness whereof, the parties hereto have signed this MOU on the 31st of March 2017

31/3/17

G.V.R. Prasada Raju

Principal, UCEK

Jawaharlal Nehru Technological University, Kakinada

Kakinada – 533 003

PRINCIPAL
University College of Engineering, Kakinada,
JNTUK Kakinada-533 003

In the Presence of

Witness

1. A.M. Prasad
2. K Padma Priya

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

31/3/17

(Dr. B. Chennakesava Rao)
Principal
Chaitanya Bharathi Institute of Technology (CBIT) (A)
Hyderabad – 500 075

PRINCIPAL
Chaitanya Bharathi Institute of Technology
GANDIPET, R. R. (Dist.)
HYDERABAD - 500 075

Witness

1.
2. N. V. Kota

CBIT GANDIPET HYD-75.

Memorandum of Understanding

Between

Hexagon Capability Center India Private Limited

And

Chaitanya Bharathi Institute of Technology, Hyderabad

This Memorandum of Understanding is entered into and effective as of 25th July 2017, by and between:

"Hexagon Capability Center India Private Limited", a company incorporated under the provisions of the Companies Act, 1956, with its office at DivyaSree Trinity Campus, HITEC City, Madhapur, Hyderabad, India – 500 081, hereinafter called the **" Hexagon "** and represented by **Mr. Shankar Muthuswamy, Company Secretary,** acting in accordance with the Decision of the Board, which expression shall unless repugnant to the meaning or context thereof be deemed to mean and include its successors and permitted assigns of, on one part,

And

Chaitanya Bharathi Institute of Technology, (hereinafter referred to as "CBIT") having its Campus at Gandipet, Hyderabad and represented by **Mr. B Chennakeshava Rao, Principal,** acting in accordance with the decision of its Governing Body, on second part

Recitals.

a. **Hexagon** is in the business of Software development and other allied business for its Clients worldwide.
b. **CBIT** is India's premier teaching cum research oriented institution offering various Technological Degrees
c. Whereas CBIT is planning to set up a Lab center at CBIT campus in Gandipet Hyderabad, in order to impart practical knowledge and technical training in the cutting-edge technologies to the students which would enable them to gain hands on experience in the latest technologies employed in the Industries
d. Whereas Hexagon under its CSR policy is committed to improving the quality of education which benefits the students in particular and the society in general by contributing to educational infrastructure, training and facilities through partnership with institutions, colleges, universities, and government and quasi-government agencies.

25/7/17

NOW THIS MEMORANDUM WITNESSETH as follows:

1. Hexagon and CBIT have agreed in principle to jointly setup a Lab at CBIT campus each with the following responsibilities:
    a. Responsibilities of CBIT:
        i. create/provide a proper Lab space in their campus to accommodate around 20 persons
        ii. equip the Lab with proper furniture, light/electrical fittings, Lan and Internet cabling/connectivity
        iii. to procure the required software licenses that are necessary for the training
        iv. to take care of the Trainers' travel and stay expenses
        v. any other expenses that may be required for an efficient functioning of the Lab which may be mutually discussed and agreed

    b. Responsibilities of Hexagon:
        i. Provide 20 desktops with monitors with appropriate configuration with OS and Office 2010 licenses
        ii. Provide upgrades on hardware/software on need based
        iii. any other expenses that may be required for an efficient functioning of the Lab which may be mutually discussed and agreed
2. **Confidentiality:** Each Party shall maintain complete confidentiality of any information of the other, disclosed ("Confidential Information"), either directly or indirectly in any form whatsoever including, but not limited to, in writing, in machine readable or other tangible form, orally or visually (subsequently reduced to writing). Both Parties undertake to (i) hold all such Confidential Information in strictest confidence, (ii) not to disclose such Confidential Information either in whole or in part to any person other than those of its officers, employees and agents who need to know the Confidential Information for the purpose authorized hereunder provided that each such officer, employee or agent has agreed in writing to maintain the confidentiality of the Confidential Information in accordance with the terms hereof or (iii) not to use such Confidential Information for any purpose whatsoever save as may be strictly necessary for the performance of this Agreement.

3. **Intellectual Property Rights:** IPR titles or ownership of any products, proprietary information or technology tools, processes, utilities, and methodology including any Hexagon proprietary products or components thereof used hereunder or development of any deliverables and all new ideas, inventions, innovations, or development conceived, developed, contributed, distributed or made by Hexagon hereunder, and all customizations, enhancement and modifications thereof, shall always remain with Hexagon and WILL NOT BE transferred from Hexagon to CBIT on account of use of the same as part of any work under this Memorandum, and

4. In no event shall either party be liable for any indirect, incidental, special, consequential damage, including, but not limited to, loss of profits, revenue, data or use, incurred by the other Party in connection with, arising out of or under this Memorandum save for any such loss suffered resulting from any willful and grossly negligent act or omission of either of the Parties.

5. Neither this Memorandum, not any activities described herein, shall be construed as creating a partnership, joint venture, agency or other such relationship. Both Parties agree that this Memorandum represents a nonexclusive relationship between the Parties and nothing contained herein shall preclude either Party from participating / initiating similar relationship with third parties in future.

6. Neither Party shall issue any press release, public announcement or other such disclosure concerning this Memorandum without the other Party's prior written consent as to such release or announcement.

7. This Memorandum may not be amended without the prior written consent of both the Parties.

8. This Memorandum shall be effective from the effective date and shall be valid for a **term of 3 years**. This Memorandum can be renewed based on mutual convenience any time.

9. **Governing Law:** This Memorandum shall be governed by the laws of India, and the Courts in Hyderabad shall have exclusive jurisdiction.

10. **Termination:** Either Party can cancel or terminate this Memorandum unilaterally (and without reason), by giving an advance written notice of one (1) month to the other Party.

11. **Notices:** All notices, requests, demands and other communications under this Memorandum or in connection herewith shall be given to or made upon the respective Parties as follows:

Hexagon	:	"Hexagon Capability Center India Private Limited" Plot No.5, DivyaSree Trinity Campus, HITEC City, Madhapur, Hyderabad, India – 500 081
CBIT	:	Chaitanya Bharathi Institute of Technology, Ocean Park Rd, Kokapet Village, Gandipet Mandal, Rangareddy District, Hyderabad - 500075

Or to such other person or addresses as any of the Parties shall have notified to the others.

All notices, requests, demands and other communications given or made in accordance with the provisions of this Memorandum shall be in writing by letter, fax or telegram.

12. **FORCE MAJEURE:**

If either of the two Parties is prevented, restricted, delayed or interfered by reason of:

a) Fire, explosion, cyclone, floods, droughts, earthquakes, epidemics;
b) War, revolution, acts of public enemies, blockage or embargo, riots and civil commotion;

c) Any law, order, proclamation, ordinance or requirements of any Government or authority or representative of any such Government, including restrictive trade practices or regulations;
d) Strikes, shutdowns or labor disputes which are not instigated for the purpose of avoiding obligations herein; or
e) Any other circumstances beyond the reasonable control of the party affected, then notwithstanding anything here before contained, the party affected shall be excused from its performance to the extent such performance relates to prevention, restriction, delay or interference and provided the party so affected used its best efforts to remove such cause of non-performances, and when removed the party shall continue performance with the utmost dispatch.

Each of the Parties agrees to give written notice to the other Party upon becoming aware of an Event of Force Majeure, and mentioning details of the circumstances giving rise to the Event of Force Majeure as soon as possible, but not later than three (3) business days from the moment it became aware of.

13. **Indemnity:** Each of the Parties shall defend, indemnify and hold the other Party harmless from and against any claim, liability, loss, costs or expenses (including reasonable Attorney's fees) arising out of or resulting from the material breach of the provisions herein.

IN WITNESS WHEREOF THE Parties have set their hands hereto on the day and year first hereinabove written under their respective seal of office.

CBIT

Hexagon

"Hexagon Capability Center India Private Limited",
DivyaSree Trinity Campus, HITEC City,
Madhapur, Hyderabad, India – 500 081

(Signature)

Mr. Shankar Muthuswamy,
Director - Finance & Company Secretary

25/2/17

(Signature)

Mr. B Chennakeshava Rao,
Principal, CBIT

HEXAGON

Intergraph Corporation, doing business as Hexagon PPM, ("Hexagon PPM") Academic License Application

To apply for the Hexagon PPM Academic License, please complete this application. Please email the completed application back to the sender.

Academic Institution Contact Information:
Name of University: CHAITANYA BHARATI INSTITUTE OF TECHNOLOGY, O.U
Name of ~~College~~/Faculty: DR. P.V.R. RAVINDRA REDDY ; DR. K. JAGANNADHA RAO
Name of Department/~~Laboratory~~: DEPARTMENT OF MECHANICAL/CIVIL ENGINEERING
Complete Address: OCEAN PARK ROAD, KOKAPET VILLAGE, GANDIPET, HYDERABAD 500075
Phone: 040-24193276 Fax: 91-040-24193278
Email: hod_mech@cbit.ac.in ; hod_civil@cbit.ac.in
Website: cbit.ac.in

Primary/Technical Contact (Primary/Technical Contact is the individual who will be the main researcher incorporating Hexagon PPM technology into the institution's research projects. This individual will receive shipment of the software and be authorized to call Hexagon PPM for software support.):
Name: DR. P. RAVINDER REDDY, PRINCIPAL, CBIT
Complete Address: OCEAN PARK ROAD, KOKAPET VILLAGE, GANDIPET, HYD 500075
Phone: 91-040-24193276 Fax: 91-040-24193278
Email: principal@cbit.ac.in

Contract Administrator (Contract Administrator must be a representative of the academic institution with power to legally bind institution to a contract.):
Name: DR. P. RAVINDER REDDY
Title: PRINCIPAL, CBIT,
Complete Address: OCEAN PARK ROAD, KOKAPET VILLAGE, GANDIPET, HYDERABAD 500075
Phone: 91-040-24193276 Fax: 91-040-24193278
Email: principal@cbit.ac.in

List of Hexagon PPM Software Products to be Licensed (Please indicate the software to be licensed by marking the appropriate box'and include the number of licenses needed):

Name of Software Product	Number of Licenses
CloudWorx for PDS	—
CloudWorx for Smart 3D	—
CloudWorx for SmartPlant Review	—
EcoSys Projects – Named Users	—
EcoSys Web Core – Named Users	—
EcoSys Web Server	—
PDS	—
PDS Designer Seat	—

PDS Designer Seat Plus	—
Smart 3D	—
Smart Construction	—
Smart Electrical	—
Smart Instrumentation	—
Smart Interop Publisher	—
Smart Materials	—
Smart Reference Data	—
Smart Review	—
SmartSketch	—
SmartPlant Foundation	—
SmartPlant P&ID	—
CADWorx Design Review	—
CADWorx P&ID Professional	—
CADWorx Plant Professional	—
CAESAR II (SPLM)	20
GT STRUDL (SPLM)	20
PV Elite (SPLM)	20
Visual Vessel Design (VVD)	—
Other (please specify): TANK (SPLM)	20

By signing below, you acknowledge your acceptance of and agreement with the Intergraph Corporation, doing business as Hexagon PPM, Academic License Agreement provided with this application.

By: _____

Name: DR. P. RAVINDER REDDY

Title: PRINCIPAL, CBIT, HYDERABAD

Date: 12.10.2021

CHAITANYA BHARATHI CBIT HYDERABAD INSTITUTE OF TECHNOLOGY

Approval by Hexagon Country Manager/Regional Vice President:

By: _____

Name: Navaneet Mishra

Title: SVP & GM

Date: 12. Oct. 2021

Approval by Hexagon PPM Global Order Desk:

By: _____

Name: _____

Title: _____

Date: _____

KINGDOM OF SAUDI ARABIA
Ministry of Education
Najran University
(044)

المملكة العربية السعودية
وزارة التعليم
جامعة نجران
(044)

No: .....Date: 11 / 11 / 2021 Attach:..... : المرفقات / / الرقم : ..... التاريخ :

To:

The Principal,
CBIT,
Gandipet, Hyderabad - 500 075.
Telangana State,
India.

Sub: Initiation of Consultancy Project: Reg.-

Dear Sir,

It is observed that, based on Dr. Thanikanti Sudhakar Babu, research profile, research articles, research metrics like citations and h-index, and as per our continuous discussions on research collaboration, I am interested to grant him a consultancy project to avail his research services as a principal investigator from your esteemed institution. As part of this project, the PI and his team will work on developing various innovative approaches to enhance power generation from renewable energy resources. The total project amount for two years is USD 26400. The project fund should be utilized to recruit a postdoctoral research fellow/Research Scientist/Senior Research fellow and pay him a monthly salary for two years and any miscellaneous expenditure.

I assure you that this initiation will lead to a major project in the future and it will be benefitted to both institutions.

The details of the project are given as follows:

Project title in short	: Enhancement of the performance of different renewable energy sources using modern techniques
Grant number	: NU-CBIT/BH-TSB/01/2022
Project fund	: USD 26400.
Duration	: Two years

The complete information about the project is provided in the Contract for Availing Research Service document.

Thank you,

Yours Sincerely

Dr. Belqasem Aljafari, Ph.D.
Assistant Professor,
Department of Electrical Engineering
Nairan Universitv, Najran, Saudi Arabia

Contract for Availing Research Service

1	**Short title of the service to be provided:**	Enhancement of the performance of different renewable energy sources using modern techniques
2	**Name and address of research service provided (RSP)**	Chaitanya Bharathi Institute of Technology (Autonomous) (CBIT) Affiliated to Osmania University (Accredited by NAAC-UGC & Accredited by NBA-AICTE) Osman Sagar Rd, Kokapet, Gandipet, Telangana 500075, India. Phone: 040-24193276/77, 040-27423086
3	**Grant number**	NU-CBIT/BH-TSB/01/2022
4	**Principal Investigator**	**Dr. T. Sudhakar Babu** Associate professor, Department of Electrical and Electronics Engineering CBIT (A), Hyderabad, Telangana 500075, India
5	**Principal Investigator (Foreign University)**	**Dr. Belqasem Aljafari, Ph.D.** Assistant Professor, Department of Electrical Engineering Najran University, P.O. Box 1988, Najran 11001, Saudi Arabia
6	**Principal technical features of research service to be provided**	**Detailed in Attachment – "Appendix A"**
7	**Project fund**	USD 26400 or INR 19,66,365 (1 USD to INR - 74.48 as of 11-11-2021)
8	**Project duration**	Two Years
9	**Expenditure**	
9.1	**Manpower (1 Postdoctoral Researcher for 24 months, 50000/- per month)**	Rs. 12,00,000 (Approximation)
9.2	**Travel Contingency**	50,000 (Approximation)
9.3	**Research article APC charges**	1,30,000 (Approximation)
9.4	**Consultancy Charges for PI**	1,20,000 (Approximation)
9.5	**Institution overhead charges**	1,12,343 (Approximation)
9.6	**GST @ 18%**	3,53,929 (Approximation)
10	**Schedule of Payment**	
10.1	**Initial Advance (On or before starting date**	12.5% of total payment

10.2	Completion of 3 months of total project duration	12.5% of total payment
10.2	Completion of 6 months of total project duration	12.5% of total payment
10.3	Completion of 9 months of total project duration	12.5% of total payment
10.4	Completion of 12 months of total project duration	12.5% of total payment
10.5	Completion of 15 months of total project duration	12.5% of total payment
10.6	Completion of 18 months of total project duration	10 % of total payment
10.7	Completion of 21 months of total project duration	10% of total payment
10.8	Final report submission	5% of toltal payment
11.	Project Starting Date	Project work can start after receiving the initial advance payment and with a mutual discussion of Project Investigators.

Signature of the Sponsorer
Dr. Belqasem Aljafari, Ph.D.
Assistant Professor,
Department of Electrical Engineering
Najran University, P.O. Box 1988, Najran
11001, Saudi Arabia

Signature of the Head of the institution
Dr. P. Ravinder Reddy,
Principal, CBIT,
Gandipet, Hyderabad - 500 075.
Telangana State,
India.

MEMORANDUM OF UNDERSTANDING

Between

ACD Communications Pvt. Ltd.

&

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

Memorandum of Understanding

This **Memorandum of Understanding** ("MOU" also called "Agreement") is made as of the 19th of August, 2022 between **Chaitanya Bharathi Institute of Technology, Hyderabad** (hereinafter called "**CBIT(A)**" or "**Institute**") and M/s **ACD Communications** (having its office at Plot No.43, IDA, Phase-I, Cherlapally, Hyderabad – 500 051) hereinafter called "**ACD Communications**" or "**Industry**".

Preamble:

This Memorandum of understanding is made between CBIT (A) and ACD Communications **on** 19th August, 2022.

Between

Chaitanya Bharathi Institute of Technology (A), Gandipet, Hyderabad, established in the year 1979, esteemed as one of the premier engineering college in the states of Telangana and Andhra Pradesh. (Herein referred to as CBIT which expression shall unless repugnant to the context of the meaning) as FIRST PART

And

ACD Communications, Plot No.43, IDA, Phase-I, Cherlapally, Hyderabad – 500 051. (Herein referred to as **ACD Communications** which expression shall unless repugnant to the context of the meaning) as SECOND PART

1. Introduction

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (CBIT (A)), established in the Year 1979, esteemed as the Premier Engineering Institute in the States of Telangana and Andhra Pradesh, was promoted with an Objective to facilitate the Best Engineering and Management Education to the Students and contribute towards meeting the need of Skilled and Technically conversant Engineers and Management Professionals, for the Country that embarked on an Economic Growth Plan. In its four decades of existence, all the Stake Holders of the Institute relentlessly endeavored to position CBIT (A) as an Institution that is a Leader and an Innovator in the Ecosystem of Engineering Higher Education and Management. With the Students being the singular Objective, the Institute has established excellent Infrastructure such as State-of – the Art Laboratories, spacious Library with Printed and Digital Collection of Books and Journals, Sports, Hostel, and other Infrastructure for Research,

Innovation, Incubation, Entrepreneurship, Extra and Co-Curricular Engagements with a total built-up Area of about 57,714 Sq. Mts., in the serene Ambience of 50 Acres to inspire, encourage and pursue Academics. In its relentless strive for Academic excellence, CBIT (A) has scaled great heights both Nationally and Internationally in Industry and Global Universities.

ACD Communications was established in the year 1999 and has become a leader in the design, development, manufacture and marketing of state of the art HF, V/UHF and Microwave Antennas, Components and Sub-Systems for applications like GSM, CDMA, Satellite, and Wireless Local Loop as well as Defense applications like Electronic Intelligence, Electronic Welfare for Airborne, Ship-borne, Vehicle and Submarine platforms base on either through built to print or built to spec mode. ACD Communications Pvt. Ltd. is dedicated to providing high class customer service and high quality products. ACD maintains high quality standards and has been certified for ISO 9001:2015. ACD is a registered vendor for all the major DRDO Laboratories like DLRL, DRDL, RCI, ADE, DARE, DEAL, LRDE, DL, PGAD, BROHMOS and Public sector units like BEL, ECIL, BEML, BDL, BSNL etc.

ACD Communications employs modern equipment available for production and development testing. It utilizes Vector Network Analyzers upto 40 GHz for development and production testing. They are equipped with plotters and computer printouts for recording of test parameters. And also it is equipped with Anechoic Chambers and Open Test Ranges for Antenna evaluation.

2. **Recitals**

'ACD Communications' is interested in engaging with CBIT(A) in areas of mutual interest as framework outlined below but not necessarily restricted to those mentioned in 2.1 to 2.6.

CBIT(A) is having faculties with expertise in the area of Electronics & Communication, Electrical, Mechanical, Bio-Tech, Chemical, CSE, IT and other emerging technologies areas, whose services can by availed by MSME Industries in Hyderabad to develop new products/process and software required by the customers and the society. Ministry of MSME, GOI, has approved MSME Incubation Centre at CBIT (A) to conduct various Programs. The services of Experts available with CBIT (A) can be availed by 'ACD Communications', to

develop new products/process and software required by the customers and the society. The Proposed Interaction will also help students of CBIT (A) to have industry interaction and involvement in development projects taken up by 'ACD Communications' along with CBIT (A) or live projects being carried out by 'ACD Communications' for other organizations under their internship. The industrial visits by the students will provide them with an exposure to various equipment, design and manufacturing process etc.

'ACD Communications' is interested in engaging with CBIT (A) in areas of mutual interest with focus areas as follows.

2.1 Innovative designs and development in the fields of Electronics & Communications, Antennas and CDMA / GSM Communications.

2.2 In the Design & Development, Manufacture and Deployment of infrastructure in the areas of Antennas

2.3 In the Design & Development, Manufacture and Deployment of infrastructure in the areas of Broad Band Horns ¬ Filters (HF to Microwave) ¬ Power Divider/ Combiners ¬ CDMA/ GSM Patch Panel Antenna, Wi-Fi Antennas etc.

2.4 In the Design & Development, Manufacture of Antennas for Wi-Fi, Wi-Max, GPS and Satellite communication.

2.5 Other areas of mutual Interest and jointly apply for Projects to funding agencies such as DST, AICTE and etc.,

2.6 'ACD Communications' will explore to incubate new Ideas using facilities of CBIT (A) incubation center with due approval.

With this MoU, Chaitanya Bharathi Institute of Technology, Gandipet, Hyderabad would like to create a new model of Industry-Institute collaboration that will serve the dual purpose of providing practical knowledge/ exposure to the students and a source of continuous research / technical interaction for the Industry.

Terms and Conditions

The Following are the modalities that are agreed under the provision of this MoU.

Setting up of Point-of- Contact:

The Industry and the Institute shall nominate a faculty and an employee respectively, as their Point-of-Contact for each other. Any exchange of official communication related to implementation of modalities mentioned below shall be through the Point-of –Contacts only. Both the parties shall let others informed if there are any changes in Point of Contact.

Industrial Training: The Industry shall provide certified training of duration not less than 2 weeks to the interested students of the Institute who have completed II SEM course work, , during summer vacation in basic/advanced area of the industry's expertise . The industry shall nominate an employee as a coordinator for this activity. The industry is expected to conduct at least one test to evaluate the performance of students at the conclusion of the training. Provisions should be made to record daily Attendance/ Performance of the students that can be shared with the institute on request. The industry shall provide the successful students with a 'certificate –of-completion' after training.

BE Projects: The Industry shall provide provision for the interested student teams of Final year, BE to carry out their projects at the industry, for duration of complete one Semester. The student-teams, working on a project shall be jointly guided by the institute and industry. Institute shall allot a faculty member to guide them in institute and the industry shall allot appropriate employee to guide each team at their facility. Students should be allowed to present their work in the evaluation seminars, which will be conducted during/end of the semester.

ME Projects: The Industry shall provide provision for the interested students of Final year, ME to carry out their projects at the industry, for duration of not less than 9 months. The students working on a project shall be jointly guided by the institute and industry. Institute shall allot a faculty member to guide them in institute and the industry shall allot an employee to guide each team at their facility. The Industry shall share their hardware/software infrastructure with these students so that they can complete their project in specified time. Industry can provide these students with an aim/project that serves both parties interest i.e. students can work on/ part of live project and they should be allowed to present the same as their project at institute/conferences/events. During this period students should be given relaxations for attending their mid-exams, semester-end exams and other performance evaluation related activity at the institute as and when required. The point-of-contact at the institute can convey this information to the industry's point-of-contact as and when required.

Internship or Placement: The Industry shall provide Internship to the B.E. / M.E. students it deems fit for a duration of not less than one semester. The Industry may also have provisions to later absorb, these interns as regular employees as per their due recruitment process only if the industry deems them fit for their organization. This clause if completely provision and it is at the sole discretion and the interest of the Industry.

Curriculum Design: The Industry shall provide inputs that can help the institute to enhance it's syllabus, such that it meets the requirements of the industry and current job market. The Industry's engineers may be invited as guest members in BoS/Curriculum Design meetings by the Institute.

Guest Lectures: The Industry shall provide on request by the institute, experienced engineers to present technical guest lectures, in the domain of expertise of the Industry. The Industry can also share their innovative projects/innovative experiments, etc ., that it deems fit through these guest lectures.

Course Delivery: The Industry shall provide on request from Institute the services of experienced engineers as a guest/ visiting faculty for delivery of advanced courses/curriculum courses, that are domain of expertise of the Industry.

Industrial Visit: The Industry shall allow 1 Day Industrial visit by students at their facility, in order to motivate students. The visit shall be organized by allotting a faculty coordinator from the institute and similarly a coordinators by the Industry.

Research Services: The Industry may request the Institute for the services of a faculty, deemed as expert in a given domain by granting them research projects of Industry's interest and providing them with necessary funding for carrying out the research at the institute. The faculty shall visit the Industry as and when need arise to share/collaborate with the research.

Consultancy Services: The Industry may request the Institute for consultancy on the design/ test /review of their products /services/Design. The Institute based on the availability of domain expert faculty and required infrastructure may provide an estimate of cost and time to complete the consultancy job. The Industry may accept the proposal by providing the Institute with necessary Cost.

PhD guidance for Industry professionals: If any employee of Industry wishes to and secures admission in PhD then the Institute's domain expert faculty shall provide them with research guidance in the faculty's domain of expertise.

In consideration of the above recitals and the mutual benefits to be derived hereafter, the parties agree to enter into an Agreement as follows:

ARTICLE – I: Scope of the MoU

This MoU details the modalities and general conditions regarding collaboration between CBIT(A) and 'ACD Communications' for enhancing, within the country, the availability of highly qualified manpower in the areas of Innovative Designs of Electronics & Communications, Antennas and CDMA / GSM Communications, etc. The area of interaction will also include training and internship of CBIT(A) students to work on live projects at 'ACD Communications'. The areas of cooperation can be further extended through mutual consent.

ARTICLE – II: Scope and Terms of Interactions

Both CBIT(A) and 'ACD Communications' shall encourage interactions between the Institutes, Students & Staff and Engineers, of both the organizations through the following arrangements:

1. Both CBIT(A) and 'ACD Communications' will plan to work on Joint development projects of Mutual Interest and also explore for joint working on Govt. funded projects based on mutual agreement.
2. Practical training of CBIT(A) students at 'ACD Communications' in the form of One-full Semester Internship at 'ACD Communications';
3. Joint guidance of student projects/thesis in various technical areas including Microwaves, Antennas and related Technologies and other areas of National interest at CBIT(A) by 'ACD Communications' on mutual agreement.
4. 'ACD Communications' may depute its personnel as visiting faculty at CBIT(A) to supplement the teaching of any of the regular Course or specialized topics.
5. 'ACD Communications' may seek assistance/guidance of CBIT(A)'s Research & Entrepreneurship (R&E) Hub for initiating any start-up company to develop new products or process along with CBIT(A).
6. 'ACD Communications' will allow the industrial visits of students for half/full day to provide them with an exposure to various equipment, instrument, etc.
7. 'ACD Communications' may be allowed to showcase its business activities at the Seminar/Workshop/Conference, etc. if possible, at CBIT(A) that will be conducted time-to-time, with necessary permission from CBIT(A).
8. 'ACD Communications' may avail library facilities at CBIT(A) for combined projects for students' project work with necessary permission from the Institute.
9. There will be no restriction on the contents of the thesis and on publication of results of the thesis, subject to the condition that no Intellectual Property Rights can be secured for any part of the work which will be decided with mutual consent.
10. If the outcome of a project related to product development, process technology and design etc. which involves matter of secrecy and concern with security of the State and the Country, the same will not be allowed for publication/printing in any form such as Electronically/verbal, etc.
11. If the outcome of an Internship or the Thesis work or the combined project results into an intellectual property, for which rights can be secured, it will be decided on case-to-case basis depending upon the contribution from both the Institution. Similarly, sharing

of expenditure in securing such rights and income accrued through royalty etc. will be decided on case- to-case basis after mutual consultation and agreement.

ARTICLE-III: Sharing of Facilities

a) 'ACD Communications' shall extend its facilities for CBIT (A) students towards the smooth conduct of Internships, Industrial Visit and Projects depending on their convenience and availability of time & staff.

b) CBIT(A) and 'ACD Communications' may explore to share their respective important R&D facilities in order to promote academic and research interaction in the areas of cooperation depending upon availability of such facility without affecting their regular working.

c) CBIT (A) and 'ACD Communications' will permit the sharing of software and other components developed during any combined project work in the areas of cooperation, if permissible within the rules governing the two institutions. However, responsibility regarding confidentiality terms of the software and other materials during the exchange will rest on respective Head of department of the branch/section and 'ACD Communications'.

d) 'ACD Communications' provide access to the library facilities to the members of faculty and students as per the prevailing rules and norms.

ARTICLE-IV : Effective Date and duration of the MoU.

a) This MoU will be effective from the date of its approval by competent authorities at both ends.

b) The duration of the MoU will be for a period of 3 years from the effective date which may be extended after mutual understanding. However, if any Important combined projects are under execution, both parties agree to complete the work even though the MoU is not effective after three years.

c) During its tenancy, the MoU may be extended or terminated by a prior notice of not less than one month by either party. However, termination of the MoU will not in any manner affect the interests of the students & faculty who have been admitted to pursue a Training/Project under the MoU.

d) Any clause or article of the MoU may be modified or amended by mutual agreement of 'ACD Communications' and CBIT (A).

ARTICLE - V: IPR

Rights regarding publications, patents, royalty, ownership of software/ design/product developed etc. under the scope of this MoU, will be decided by CBIT and 'ACD Communications' based on Mutual agreement.

ARTICLE – VI: Confidentiality

During the tenure of the MoU both CBIT(A) and 'ACD Communications' will maintain strict confidentiality and prevent disclosure of all the information and data exchanged under the scope of this MoU for any purpose other than in accordance with this MoU.

Both CBIT(A) and 'ACD Communications' shall bind their respective personnel who come into possession or knowledge of any confidential information not to disclose the same to third parties without written approval of the disclosing party or use such confidential information for any use other than intended under this agreement or PROJECTS. Further both CBIT (A) and 'ACD Communications' should put in place adequate and reasonable measures to keep and store confidential information secure so as to prevent any unauthorized use.

CONFIDENTIAL INFORMATION shall mean any proprietary information, data or facts belonging to PARTIES collectively or severally, disclosed by the disclosing party under this agreement or any subsequent agreement, whether in writing, verbal or electronically, irrespective of the medium in which such information is stored, which is marked confidential or with any other words having similar meaning by the disclosing party, or specifically agreed to be kept confidential by the parties, or declared or identified so by the disclosing party before such disclosure or during the discussions. However confidential information should not include any data or information which:

(a) is or becomes publicly available through no fault of the receiving party,

(b) is already in the rightful possession of the receiving party prior to its receipt of such data or information;

(c) is independently developed by the receiving party without reference to the confidential information of the disclosing party

(d) is rightfully obtained by the receiving party from a third party or is in the public domain

(e) is disclosed with the written consent of the party whose information it is, or

(f) is disclosed pursuant to court order or other legal compulsion, after providing prior notice to the disclosing party.

ARTICLE – VII: AMENDMENTS

Any amendment and/or addenda to the AGREEMENT should be in writing and signed by the PARTIES hereto and shall only after such execution be deemed to form part of the AGREEMENT and have the effect of modifying the AGREEMENT to the extent required by such amendment or addenda.

ARTICLE – VIII: Compensation, Force Measure, Approval and Dispute Settlement

a) Compensation

Neither Party shall be liable to the other for any incidental, indirect, special or consequential damages, including but not limited, to loss of profits, loss of use, loss of revenues or damages to business or reputation arising out of or in connection with this Agreement or any aspect thereof. Neither Party shall be liable to the other by reason of the termination or expiry of this Agreement for compensation or damages on account of the loss of prospective business or on account of expenditures in expectation thereof.

b) Force Majeure

Any delay or failure in performance by the party to this Agreement, shall not constitute default hereunder to give rise to any claims for damages against said party, if any, to the extent caused by matters beyond the control of said party including but not limited to acts of Nature, Strikes, Lock outs or other concerted acts of workmen, fires, floods, explosions, blockages, embargoes, riots, war (declared or undeclared), rebellion, sabotage, extraordinary severe weather, pandemic situation, civil commotion and

criminal acts of third persons. If the project under execution is delayed by such force majeure, then upon the happening of such delay, the parties within 30 days of the happening of such event, shall give notice in writing, requesting for extension of time indicating the period for which extension is desired. Efforts will be made by both parties to give fair and reasonable extension of time for the projects at their discretion but no monetary allowances shall be made unless it is mutually agreed.

c) Approval of the MoU

This Agreement may be signed by authorized officials, whether by original signature or by scanned signature due to the current situation (provided the pdf document is accompanied with official email), signature/approval over official email, with the same effect as if the signature to any counterpart was an original signature upon the same instrument.

d) Dispute and Settlement

i) In case of any dispute (s), steps shall be taken by the parties to the MOU to settle the same through amicable negotiations. In case, dispute is not settled in negotiations, it shall be referred to Conciliator appointed by the designated official as per the bye law of CBIT(A), Hyderabad to arrive at a settlement.

In case dispute is not settled in conciliation proceedings, the same shall be referred to Arbitration for resolution of the dispute under Arbitration and conciliation Act 1996. The arbitration proceeding shall be conducted as per provisions of the Arbitration and Conciliation Act, 1996. The dispute shall be referred for arbitration to sole arbitrator to be appointed by the designated official (s) as per the bye law of CBIT(A) – Hyderabad. The award of the sole arbitrator shall be final and binding on both the parties. The venue of the Arbitration shall be at Hyderabad in India. The Award to be given by the Arbitration shall be a speaking award.

ii) Applicable Laws and Jurisdiction of Courts

Indian laws both substantive and procedural, for the time being in force, including modifications thereto, shall govern the MOU including the arbitral proceedings. The competent Courts at Hyderabad in the State of Telangana - India shall have sole jurisdiction. All questions, disputes, differences arising under, out of or in connection with this MOU shall be to the exclusive jurisdiction of Hyderabad courts in the State of Telangana.

For

ACD Communications
Hyderabad

By B. ADI LAKSHMI

Name: ~~Miss B. Adhi Lakshmi~~ Mrs

Managing Director 19/08/2022

ACD Communications Pvt. Ltd. Hyderabad

Witness:

K. Bhramaramba 19/8/22

(Smt. K. Bhramaramba)

Technical Advisor

ACD Communications Pvt. Ltd. Hyderabad

For

Chaitanya Bharathi Institute of Technology Hyderabad

By 19/8/2022

Name Dr. P. Ravinder Reddy

Principal

Principal
Chaitanya Bharathi Institute of Technology
(Autonomous)
Gandipet, Hyderabad-500 075.

Chaitanya Bharathi Institute of Technology (A) Gandipet, Hyderabad-75

Witness:

A.D. Sarma 19/8/22

(Dr. A.D. Sarma)

Director R&D

Director - Research & Development
R&E Hub, CBIT(A)
Gandipet, Hyderabad-500075

19/08/2022

(Dr. D. Krishna Reddy)

Head Department of ECE

HEAD
DEPARTMENT OF ECE
Chaitanya Bharathi Institute of Technology
Hyderabad-500 075