



తెలంగాణ తేలంగానా TELANGANA

Sl. No. 6441, Date: 31/01/2023, Rs.100/-  
Sold to. M V Nageshwar Rao,  
S/o. Late. M.Venkateshwar Rao, R/o. Hyd.  
For Whom: CDAC.

P. Sandhya Rani 721250

P. SANDHYA RANI  
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Hyderabad-29, Phone No.7680000870

### MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (hereinafter referred as MoU)  
is made and executed on the \_\_\_\_\_ 2023

### BY AND BETWEEN

- a) **Centre for Development of Advanced Computing (C-DAC)**, a scientific society under the Ministry of Electronics and Information Technology, Government of India registered under the Societies Registration Act 1860 and the Bombay Public Trust Act 1950 having its registered and Head office at Pune University Campus, Pune 411 007, and having one of its constituent units at Plot No. 6 & 7, Hardware Park, Sy No. 1/1, Keshavagiri Post Hyderabad – 501510, Telangana (India) (hereinafter called “RC” or “C-DAC”) which expression shall wherever the context so submits mean and include its successors and assignees of the **FIRST PART**;

AND

- b) **Chaitanya Bharathi Institute of Technology** registered under section 35 of 2001 act on 01-07-2009 having its registered address at CBIT, CBIT campus, Kokapet village, Rajendranagar (M) hereinafter referred “SPOKE” which



expression shall wherever the context so submits mean and include its successors and assignees of the **SECOND PART**.

**RC** and **SPOKE** are hereinafter individually referred to as "Party" and collectively referred to as "Parties" as the context may require.

WHEREAS Future Skills PRIME – Programme for Re-skilling/ Up-skilling of IT Manpower for Employability' (hereinafter referred to as the Programme) has been approved as a Central Sector Scheme under the "Champion Services Sector Scheme (CSSS)" of Department of Commerce (DoC), to be implemented jointly by SSC NASSCOM (Key Implementing Agency) and Programme Management Unit. In order to institutionalize blended-learning mechanisms, a hub and spoke model would be adopted through Lead Resource Centres and Co-Lead Resource Centres for wider reach and deeper penetration in the country. Further, Lead and Co-Lead centers will enter into MoU with the spokes and thereby ensure adequate demographic coverage of the relevant technology across length and breadth of India.

AND WHEREAS, the objectives of the Future Skills PRIME Programme are as follows:

The main objective of the Programme is "to create a re-skilling/ up-skilling ecosystem in emerging and futuristic technologies to facilitate continuous skill as well as knowledge enhancement of the IT professionals in line with their aspirations and aptitude in a self-paced digital skill environment."

The Programme would offer a robust platform to encourage any-time, anywhere, self-paced learning. The existing pan-India presence & skilling capabilities of training providers (SSC NASSCOM, NIELIT, C-DAC etc.) would be leveraged through blended-learning framework in hub-and-spoke model. The Programme would also seek to tap the untapped potential that emerging technologies bring along by causing a transition from traditional classroom learning methodologies, to an online and blended skilling framework. The Programme framework would take into account Job-roles/ NOS (National Occupational Standards) in emerging technologies, which would specify the standard of performance, knowledge and understanding, along with mechanisms for assessment and certification.

The Programme would provide re-skilling/ up-skilling opportunities in 10 Emerging Technologies – Virtual Reality, Internet of Things, Big Data Analytics, Artificial Intelligence, Robotic Process Automation, Additive Manufacturing/ 3D Printing, Cloud Computing, Social & Mobile, Cyber



Security and Blockchain. The framework would also have the flexibility to add new Job Roles/NOS in any new emerging technology.

Under this programme, C-DAC Hyderabad is identified as a Lead Resource Centre (**LRC**) for Cyber Security domain and Co-Lead Resource centre (**CRC**) for Blockchain Technology and Additive Manufacturing / 3D printing. Courses offered are specifically targeting the student and Professional community to give shape to their professional careers. Now, therefore, it is agreed between the Parties (**RC & SPOKE**) into writing in the form of this MoU containing the following terms and conditions set forth in the Articles 1 to 31 along with Annexure I for a clear understanding

## 1. DEFINITIONS

Unless otherwise stated, for the purpose of this MoU, the capitalized terms given hereunder shall have the following meanings:

- i. **3D:** Additive Manufacturing/ 3D Printing
- ii. **AI:** Artificial Intelligence
- iii. **Annexure:** Any annexure to this MoU as enumerated and cross-referred in these articles
- iv. **Articles:** Any Clause of this MoU or partial clause with separate marginal number as referred to anywhere in the workings of this MoU or its Annexures
- v. **AVR:** Augmented Reality/ Virtual Reality
- vi. **BC:** Blockchain
- vii. **BDA:** Big Data Analytics
- viii. **CC:** Cloud Computing
- ix. **C-DAC:** Centre for Development of Advanced Computing
- x. **CRC:** Co-Lead Resource centre
- xi. **CS:** Cyber Security
- xii. **CSSS/ Scheme:** Champion Services Sector Scheme
- xiii. **DoC:** Department of Commerce
- xiv. **DPR:** Detailed Project Report of FutureSkills PRIME (February, 2019)
- xv. **EC:** Expert Committee
- xvi. **GC:** Group Coordinator, MeitY
- xvii. **GFR:** General Financial Rules, 2017 (as amended from time to time)
- xviii. **GIA:** Grants-In-Aid
- xix. **HRD:** Human Resource Development Division of MeitY
- xx. **IoT:** Internet of Things



*[Handwritten signature in green ink]*



- xxi. **IPR:** Shall mean all rights, benefits, title or interest in or to any Intellectual Property (whether registered or not and include all applications for the same).
- xxii. **IR:** Internal Revenue
- xxiii. **IT:** Information Technology
- xxiv. **ITeS:** Information Technology enabled Services
- xxv. **LRC:** Lead Resource Centre
- xxvi. **MeitY:** Ministry of Electronics and Information Technology, Government of India having its office at Electronics Niketan, 6, CGO Complex, Lodhi Road, New Delhi – 110003
- xxvii. **MoU:** Memorandum of Understanding
- xxviii. **MIS:** Management Information System
- xxix. **NASSCOM:** National Association of Software and Service Companies through IT-ITeS Sector Skill Council, NASSCOM (SSC NASSCOM)
- xxx. **NIELIT:** National Institute of Electronics & Information Technology
- xxxi. **NSDA:** National Skill Development Agency
- xxxii. **NSQF:** National Skills Qualifications Framework
- xxxiii. **NOS:** National Occupational Standards
- xxxiv. **Party/Parties:** means Lead Resource Centre or/and Co-Lead Resource Centres or/and Programme Management Unit (PMU)
- xxxv. **Participating Agencies:** means C-DAC and NIELIT Centres selected as Resource Centres (Leads/Co-Leads) under FutureSkills PRIME or/and NASSCOM and IT-ITeS SSC NASSCOM or/and Training Partners affiliated to C-DAC, NIELIT and IT-ITeS SSC NASSCOM selected under the Programme or/and stakeholders on-boarded by the Parties under FutureSkills PRIME
- xxxvi. **PMU:** Programme Management Unit
- xxxvii. **PRSG:** Project Review and Steering Group
- xxxviii. **RC:** Resource Centre
- xxxix. **RPA:** Robotic Process Automation
- xl. **SM:** Social & Mobile
- xli. **SSC/ SSC NASSCOM:** IT-ITeS Sector Skill Council NASSCOM
- xlii. **TP:** Training Partners
- xliii. **TSC:** Technology Sub-Committee

## 2. SCOPE OF MEMORANDUM OF UNDERSTANDING

The Articles 1 to 31 and Annexure I to this MoU form an integral part of MoU between the Parties. The terms herein referred in the MoU and Annexures shall be binding on the Parties. The MoU together with the Annexures indicate the responsibilities and obligations of the Parties to this




MoU including terms and conditions, financial arrangement, intellectual property rights (IPR), monitoring mechanism etc. of the Programme.

### 3. BROAD IMPLEMENTATION FRAMEWORK

The FutureSkills PRIME would be implemented by NASSCOM, C-DAC, NIELIT and other stakeholders under the aegis of MeitY. The Programme would essentially follow an “aggregator of aggregators” approach with the entire platform being hosted online. The Programme envisages to maximise reach and participation of the aspirants irrespective of their present profile/skill. It seeks to create value through a repository of free and curated content/ pathways on new and emerging technologies.

### 4. ROLES AND RESPONSIBILITIES

#### 4.1. Roles of RC as

##### 4.1.1 LRC

- i. LRC would designate a person as RC Head to promote interface across the Parties, review of various activities, implementation planning, provide the requisite logistics and co-ordination support in close liaison with other stakeholders.
- ii. Act as an overarching mechanism, to monitor, audit, support and ensure that all components of the Programme are being administered as per the norms and guidelines of the FutureSkills PRIME Programme. These components include:
  - Syllabus / Curriculum development
  - Blended Learning Course conduction
  - Standard Operating Procedures
  - Course Fees
  - Publicity & Promotion (Blended Learning)
- iii. To facilitate in uploading required information in Management Information System (MIS) developed by PMU to enable enrolments and certifications through Spokes.
- iv. To devise marketing and awareness programs, which are key components for the success of scheme.
- v. To develop e-Content for blended-learning programs.
- vi. To establish Lab/e-Lab facilities.
- vii. To create suitable processes/ mechanisms in respect of the following to achieve the envisaged project objectives/deliverables in the respective thematic areas:
  - Access to Labs/ e-Labs
  - Promotional and awareness related activities
  - Feedback mechanism
  - Collection of success stories, etc.



- To develop/ design courses and course content for Bridge Courses
- viii. To share the respective registered user data with the SPOKE on a monthly / timely / on request basis.
- ix. To liaise with academic institutions, NIELIT/C-DAC Centres, Training Partners of SSC NASSCOM, and Institutes under line ministries, State Government and associated departments for overall implementation of the program for achieving the target.
- x. To setup a Technology Sub-Committee (TSC) as an internal mechanism in the identified thematic area to evolve standard operating procedures connected with development and delivery of blended-learning programs, including identification of equipment for setting up of labs/ e-Labs.
- xi. To create reports/ journals/ blogs (with support of Spokes), and conduct seminars, workshops, discussion forums, etc., which would inter-alia include the following aspects
  - New skill-sets/ job roles as a result of emerging/ disruptive technologies
  - Significance of re-skilling/ up-skilling/ continuous skilling in the online/ blended mode as a potent tool to stay relevant
  - Challenges associated with flip over from conventional modes of training to online/ blended mode of training
  - New and emerging technologies that are shaping the future of IT; etc

#### 4.1.2 Co-Lead RC

- i. **CRC** would designate a person as RC Head to promote interface across the Parties, review of various activities, implementation planning, provide the requisite logistics and co-ordination support in close liaison with other stakeholders.
- ii. Act as an overarching mechanism, to monitor, audit, support and ensure that all components of the Programme are being administered as per the norms and guidelines of the FutureSkills PRIME Programme.
- iii. To facilitate in uploading required information in Management Information System (MIS) developed by PMU to enable enrolments and certifications through Spokes.
- iv. To devise marketing and awareness programs, which are key components for the success of scheme.
- v. To create suitable processes/ mechanisms in respect of the following to achieve the envisaged project objectives/deliverables in the respective thematic areas:
  - promotional and awareness related activities
  - feedback mechanism
  - collection of success stories, etc.



- vi. To share the respective registered user data with the SPOKE on a monthly / timely / on request basis.
- vii. To liaise with academic institutions, NIELIT/C-DAC Centres, Training Partners of SSC NASSCOM, and Institutes under line ministries, State Government and associated departments for overall implementation of the program for achieving the target.
- viii. To create reports/ journals/ blogs (with support of Spokes), and conduct seminars, workshops, discussion forums, etc., which would inter-alia include the following aspects
  - New skill-sets/ job roles as a result of emerging/ disruptive technologies
  - Significance of re-skilling/ up-skilling/ continuous skilling in the online/ blended mode as a potent tool to stay relevant
  - Challenges associated with flip over from conventional modes of training to online/ blended mode of training
  - New and emerging technologies that are shaping the future of IT; etc

#### 4.2 SPOKE

- i. To establish a team and identify a single point of contact to facilitate communication, interactions, implementation, planning, and review of various activities across teams and corresponding parties involved.
- ii. To create an enabling mechanism for supporting **RC** in institutionalization of Blended Learning Mechanisms in the identified thematic area.
- iii. To pro-actively support **RC** for establishing/developing the followings to achieve the envisaged project objectives/deliverables in the identified thematic area:
  - Blended Learning Course Conduction in respective Technology
  - To arrange regular doubt clearing sessions for the enrolled students
  - Promotional and awareness activities
  - Collection of success stories
- iv. To ensure the regular updating of MIS within the **RC** operated tools.
- v. To provide status and plan of action w.r.t milestones for achieving the deliverables, access of e-Lab, promotional activities, candidates/beneficiary details, Financials/Course Fees, etc.
- vi. To submit the Monthly Report (Technical & Financial) and other necessary documents to **RC** in a timely manner.




## 5. SPOKE OUTCOMES/ DELIVERABLES

The Blended Learning courses in the emerging technologies envisage that the following categories of courses would be conducted by SPOKE.

SI No	Technology	Course Name	Target
1	Cyber Security	Pragmatic Approach to Cyber Security	200*
2	Blockchain	Introduction to Blockchain	100*
3	3D Printing	3D Printing and CAD Modeling	100*

- If any updations by lead centre in terms of course fee/revenue sharing, spoke share will vary accordingly
- Any new courses launched by the **RC** are eligible to be conducted by SPOKE upon mutual consent from both the parties

\*Minimum target to be achieved till Dec 2023.

## 6. MONITORING & EVALUATION OF PROGRAMME

- 6.1 Bi-Monthly Review:** The FutureSkills PRIME envisages to bring about a paradigm shift in the way re-skilling/ up-skilling is imparted in the country. The Programme has multiple components offering varied skilling options across the board. The bimonthly review would entail a detailed technical and financial review by **RC**.
- 6.2 Impact Assessment Study:** An impact assessment would also be carried out at the end of the tenure to gauge the actual reach and outcomes of the Programme.

## 7. TARGET AUDIENCE

- Students of 3<sup>rd</sup> year and 4<sup>th</sup> year students of B.Tech, M.Tech and MCA\*
- Fresh Recruits – Internship/apprenticeship
- IT employees in IT firms and non-IT firms
- Non-IT employees who use new and emerging technologies
- Re-skill/Up-skill employees whose IT skill is obsolete
- Central Govt. & State Govt. employees
- PSUs and Autonomous (Govt. Employees)

\* They will be applicable for the incentive program only if they have internship / apprenticeship certificate.





## 8. DETAILS OF INCENTIVES / FINANCIAL ASSISTANCE TO BRIDGE COURSE PARTICIPANTS

**Incentive Model:** The Incentive model would take into account that in order to motivate aspirants, a virtual Skills Wallet (provided by NASSCOM & PMU Admin) would be assigned to each candidate on registration. When a candidate registers for a bridge course, his/her Skills Wallet would be provided with an incentive amount of Rs. 3,000, which would get encashable once s/he successfully gets assessed and certified. The maximum ceiling of incentive per course would be limited to a maximum of 50% of the course fee paid by the candidate. In case of a student, he/she should have internship / apprenticeship certificate / offer letter in hand when applying for incentive.

A total of 5000 participants are eligible for the incentives under each emerging technology. All the participants trained by LRC, CRC and all the SPOKE are eligible for incentives. Participants are eligible to get incentives only if they clear the assessment conducted by SSC NASSCOM as per the GoI guidelines

## 9. FINANCIAL DETAILS

The details of Course to be conducted, Course Fee and its distribution across parties are as follows:

### Reimbursement

- Payments would be received by **RC** from SECTOR SKILLS COUNCIL NASSCOM (SSC NASSCOM) / Lead Resource Centre post 150 (One hundred fifty) days from the date on which the relevant Bridge Course is sold to the Subscriber and shall be subject to deductions on account of applicable taxes, gateway fee etc.
- **RC**, upon receipt of the Bridge Course Fee, request SPOKE, in writing, to raise an GST invoice for the value as indicated in Annexure-II. **RC** shall, upon receipt of an invoice form SPOKE, pay the same within 30 (thirty) days.
- If payment to SPOKE, is not made by **RC**, in accordance with the terms hereof, the Parties shall, in good faith, take necessary measures to determine the causes of delay and resolutions thereof.
- For any change in course fee, **RC**, shall intimate in writing to the SPOKE and an amendment for the same will be made between the Parties considering all applicable clauses of this MoU.



## Revenue Sharing

- For the mentioned Bridge Courses, revenue would be shared between RC and the SPOKE in the ratio of 40:60 respectively

Activity	Cost for Pragmatic Approach to Cyber Security	Cost for Introduction to Blockchain**	Cost for 3D Printing and CAD Modeling
Base price of the course (a)	₹1017/-	₹1000 /-	₹3390/-
GST(18%) (b)	₹183/-	₹180 /-	₹610.20/-
Total (c) = (a) +(b)	₹1200/-	₹1180 /-	₹4000.20/-
FSP platform payment gateway charges @2.6% (d)	₹37/-	₹36 /-	₹122.72/-
A Terms and Conditions retained by NASSCOM till the receipt of tax refunds (e)	₹22/-	₹22 /-	₹74/-
Cost to LRC inclusive of GST (f) = (c) -(d) -(e)	₹1141/-	₹1122 /-	₹3803.28/-
Actual cost to LRC (g)	₹967/- (after removing GST)	₹951 /-	₹3193/- (after removing GST)
RC Share	₹387/-	₹380/- (40% of (g))	₹1277.23/- (40% of (g))
SPOKE share	₹580/- (60% of (g))	₹571/-	₹766.34/-

\*\* For the enrolments post 31<sup>st</sup> Mar 2023, the revenue sharing details will be communicated separately.

NB: Cost mentioned in column (e) - the TDS retained by NASSCOM till the refund is received shall be transferred and retained by the Lead Centre.

- Any changes in the course fee / discount will be communicated to the SPOKE.

## 10. Copyright and Intellectual Property

Means all proprietary inventions, processes, product designs, know-how or any other intellectual property of a Party or any other third party which is associated with such Party in development of any products and any other materials/application in any media and information, whether registered by such Party or not and here after acquired or developed by such Party. It also includes any service mark, commercial name, trademark, or trade name, whether registered by a Party or not or hereafter acquired or developed, that is associated with each institution.

All pre-existing IP shall be owned by the Party which owns it. The present course materials which are either in print, audio/video or electronic form belonging to and/or developed exclusively by the respective parties shall continue to remain the exclusive property of the respective parties.

Any Intellectual Property in respect of any training materials which may be developed in future by respective organizations for the use of students who



are enrolled for these programmes shall be exclusively owned by the respective parties who created / developed it.

Intellectual property in the form of patents, copyrights etc. arising out of work carried out jointly under these collaborative programmes will be decided in writing in advance before commencement of work.

Overall, all parties shall strive to protect the interest of other in the context of IPRs and agrees to do nothing which is void of such laws and regulation of the land with respect to IPRs.

### 11. Use of Name

Either party may use other's name for the purpose of identifying above mentioned programmes and shall not use, or be entitled to use, parties' name, trademarks, logos, trade name or any other intellectual property in any other way without the prior written consent or as may be authorized under a separate written consent. Upon termination by efflux of time, or prior determination thereof as provided for herein, of this MoU either party shall immediately stop using name, trademarks, trade name and logos, etc.

### 12. Validity

This MoU will come into effect on the date of signature of both the parties and will remain in force for 1 years until either of the two parties serves a written notice to the other at their addresses as indicated vide MoU by a registered post of its intention to terminate the MoU in which case it will terminate one month after the receipt of such a notification. The agreement can be renewed on expiry on mutually agreed terms and conditions.

Notwithstanding anything in this MoU, neither Party shall be liable to the other for any failure to achieve any of the objectives and undertakings herein.

However, commitments made by either party in respect of personnel hired or equipment ordered, under this MoU would be honoured by respective parties.

### 13. Termination

This MoU may be terminated by either of the parties by giving one month prior written notice to the other side sent through RPAD/Speed Post AD. In such an event, both parties shall complete their respective responsibilities



outlined under this MoU until the completion of running session / or academic programmes to which students may have been enrolled prior and up to the date of the notice of termination.

#### **14. Amendment/Renewal or Extension**

No amendment or modification / renewal or extension of this MoU shall be valid unless it is made in writing jointly by SPOKE and RC. The modification / change / renewal or extension shall be effective from the date on which they are made / executed unless otherwise agreed to in writing.

#### **15. Matters not provided in the MoU**

If any doubt arises as to the interpretation of the provisions of this MoU or as to matters not provided therein; the parties to this MoU may consult each other for each such instance and resolve those doubts in good faith and spirit.

#### **16. Dispute Resolution and Jurisdiction**

In case any dispute/claim arises between the Parties with respect to the MoU, including its validity, interpretation, implementation or alleged material breach of any of its provisions or regarding a question, including the questions as to whether the termination of this MoU by one Party hereto has been legitimate, both Parties hereto shall endeavor to settle such dispute amicably. If the Parties fail to bring about an amicable settlement within a period of 30 (thirty) days, the dispute shall be referred to the sole arbitrator appointed by both parties. If both parties do not agree on the name of a sole arbitrator, they will appoint one arbitrator each and these two arbitrators will appoint a third arbitrator and the arbitration proceedings will be conducted by the panel of these three Arbitrators. Arbitration proceedings shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 and Rules made there under, or any legislative amendment or modification made thereto. The seat and venue of the arbitration shall be Hyderabad. The award given by the arbitrator shall be final and binding on the Parties. The language of arbitration shall be English. The common cost of the arbitration proceedings shall initially be borne equally by the Parties and finally by the Party against whom the award is passed. Any other costs or expenses incurred by a Party in relation to the arbitration proceedings shall ultimately be borne by the Party as the arbitrator may decide.



## 17. Force Majeure

The parties to this MoU shall not be liable to each other for failure or delay in the performance of any of their obligations under this MoU for the time and to the extent such failure or delay is caused by riots, civil commotion, wars, hostilities between nations, government loss, court orders in rem, orders regulations, embargos, action by the government(s) or any agency thereof act of God, storms, fires, accidents, strikes, sabotages, pandemic, epidemic, explosions; or other similar or different categories beyond the reasonable control of the respective parties to this MoU.

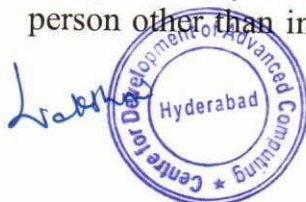
In the event that either party is wholly or in part prevented from or hindered in carrying out or observing any of the terms or conditions of this MoU for any cause set forth herein above, such party shall give written notice to the other party by the most expeditious means as soon as possible after the occurrence of the cause relied on, giving full particulars of the reason for such prevention or hindrances, and the parties shall in good faith consult each other and take necessary measures for the resolution of the affairs so prevented or hindered.

## 18. Severability

If any provision of this MoU becomes or is declared illegal, invalid, or unenforceable, the provisions will be divisible from this MoU and deemed to be deleted from this MoU and the rest of the MoU shall be valid and binding. However, if the deletion substantially alters the basis of this MoU, the parties will negotiate in good faith to amend the provisions of this MoU to give effect to the original intent of the parties.

## 19. Confidentiality

- i. It is envisaged that the Parties or any members of their respective Groups or any of their respective Agents may from time to time disclose Confidential Information relating to its current or proposed business to each other. In consideration of such Confidential Information being made available to both parties, the first party and the second party agree that any disclosure or dealings between the Parties will be subject to the terms and conditions of this MoU. Both Parties will treat and keep all Confidential Information confidential and will not, without the Disclosing Party's prior written consent, directly or indirectly communicate or disclose (whether in writing or orally or in any other manner) Confidential Information to any other person other than in accordance with the terms of this MoU (for the



- avoidance of doubt, this will also prohibit discussing the same with any Disclosing Party Group employees other than those involved in connection with the Project).
- ii. Intellectual Property and Trademarks - Both the parties will continue with their respective trademarks including that of any improvements or work done at its own cost for this MoU.
  - iii. The obligations undertaken hereto shall not apply to any information obtained which is or becomes published or is otherwise generally available to the public other than in consequence of any willful or negligent act and such obligations shall survive the termination of this MoU.
  - iv. Parties may enter into a separate NDA if desired.

## 20. Headings

The heading used in the MoU is inserted for convenience / reference only and shall not affect the interpenetration of the respective clauses and paragraphs of this MoU.

## 21. Non-Waiver

The failure or neglect by either of the Parties to enforce any of the terms of this MoU shall not be construed as a waiver of its rights preventing subsequent enforcement of such provision or recovery of damages for breach thereof.

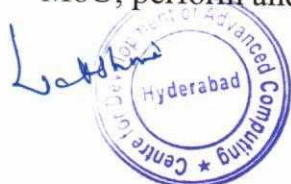
## 22. Assignment and Transfer

Any and all rights, duties and obligations of the parties under this MoU shall not be transferred or assigned by either party to any third party without prior written consent of the other party.

## 23. Representations and Warranties

The parties hereby represent and warrant to each other:

- a) That it is duly established and existing under the laws of jurisdiction stated against its name hereinabove and has the power and authority to sign this MoU and implement the Project agreed to herein.
- b) That it has the requisite legal power and authority to enter into this MoU, perform and comply with its duties and obligations hereunder.



- c) That this MoU constitutes legal, valid and binding obligations enforceable against it in accordance with the terms hereof:
- d) That the execution, delivery and performance of this MoU have been duly authorized by all requisite actions and will not constitute a violation of (i) any statute, judgment order, decree or regulation of any court, Governmental Instrument or arbitral tribunal applicable or relating to itself, its assets or its functions or (ii) any other documents or to the best of its knowledge any indenture, contract or agreement to which it is a party or by which it may be bound.
- e) That there are no actions, suits or proceedings pending or, to the best knowledge threatened against it before any Court, Governmental Instrument or arbitral tribunal that restrain it from performing its duties and obligations under this MoU; and that no representation or warranty made herein contains any untrue statement.
- f) Parties shall respect and abide by laws of India in carrying out respective responsibilities/fulfilling obligations under this MoU. Parties shall not commit any act/omission which will be illegal/unlawful/unethical/immoral.

#### **24. No partnership**

Nothing in this MoU shall be deemed to neither constitute or create an association, trust, partnership or joint venture between the Parties nor constitute either party the agent of the other party for any purpose.

#### **25. Relationship between parties**

It is clearly understood by the parties that this Memorandum does not create any employer-employee agency relationship between the parties.

#### **26. Address for Communication**

Any notice or communication with reference to this MoU, unless otherwise specified herein shall be deemed to be validly sent, if dispatched by registered post acknowledgement due to the other party at the following respective address.



Contact Person for \_SPOKE\_:

Technology	Cyber Security	Block Chain	3D Printing & CAD Modelling
Name	Sri. S. Rakesh	Dr. Sangeeta Gupta	P Anjani Devi
Email ID	srakesh_it@cbit.ac.in	sangeetagupta_cse@cbit.ac.in	panjanidevi_mech@cbit.ac.in

Contact Person for C-DAC:

Technology	Cyber Security	Block Chain	3D Printing & CAD Modelling
Name	Jyostna G	Radhika K	Sharan B
Email ID	gjyostna@cdac.in	radhika@cdac.in	sharan@cdac.in

Either party may by a similar written notice to the other party change his / her aforesaid addresses.

## 27. Indemnity

Either party shall save and indemnify, protect and keep saved and indemnified the other party against all claims, actions, losses, costs, damages, expenses, legal suits and other proceedings resulting from and arising out of actions, inaction or negligence of either party or their employees, agents or for violation of any provision of this MoU or any provision thereof by any party or its employees or for infringement of any patent, trademark copyright of any third party.

## 28. Limitation of Liability

Except the circumstances of mens rea and gross negligence, in no event will the parties be liable to each other for any incidental, consequential, special, and exemplary or indirect damages, or for lost profits, lost revenues, or loss of business arising out of the subject matter of this MOU, regardless of the cause of action, even if the party has been advised of the likelihood of damages.

## 29. ANNOUNCEMENT

From the date of signature, both the parties can announce the existence of this MoU. Both the parties can submit the MoU for any regulatory or Government related purposes.





C-DAC and Chaitanya Bharathi Institute of Technology can announce about the MoU on their websites.

### 30. OTHER TERMS AND GENERAL CONDITIONS:

- All the documents prepared and used by the parties wherein Brand Name, LOGOs or photos, individual names, physical/virtual property of the other party is used for any purpose relating to the proposed MoU should be formally approved by the designated competent authority of the other party
- While the MoU is under force, both the parties should refrain from poaching any resources presently working with the respective entities. They should not be employed directly or in-directly by any party without the consent in writing of the other party
- The verification of the documents in support of the candidate's eligibility criteria such as Educational qualifications lies with \_SSC NASSCOM\_ and all the rights whether to accept or reject the admission of any candidate into the proposed course
- Notwithstanding anything contained in the rules, the administrative rules, regulations, discipline and conduct rules procedures being applicable to the regular students of the university are applicable to the participants in mutatis-mutandis
- Wholly or partly both parties are not responsible to each other for refund of the capital cost losses on account of damage to the property or infrastructure, any insurance coverage, payment of Insurance premium, processing of claims towards equipment/services.



### 31. Entire agreement:

This MoU constitutes the entire Understanding between the Parties. Any and all written or oral agreements, representations or understandings of any kind that may have been made prior to the date hereof shall be deemed to have been superseded by the terms of this MoU.

In witness whereof, both the parties jointly agree to all the provisions as set out above and have set their hands, signed and affixed their respective seal through their authorized representatives, this \_\_\_ day of \_\_\_\_\_ 2023.

**This MoU has been signed in two originals and each party has one signed original in its possession.**

Signed, Sealed and Delivered by  
by

Signed, Sealed and Delivered

For and on behalf of C-DAC,  
Hyderabad

For and on behalf of \_\_\_\_\_

*Lakshmi*

*P. Ravinder Reddy*

Name: P R Lakshmi Eswari

Name: Prof. P. Ravinder Reddy

Designation: Director

Designation: Principal

**P R LAKSHMI ESWARI**  
Director / निदेशक  
प्रगत संगणन विकास केंद्र (सी-डैक)  
Centre for Development of Advanced Computing (C-DAC)  
प्लॉट नंबर 6 एवं 7 हार्डवेयर पार्क  
Plot No: 6 & 7, Hardware Park  
सर्वेक्षण. श्रीशैलम राजमार्ग  
Sy. No: 1/1, Srisaillam Highway,  
पहाडी शरीफ बाया (केशवगिरि पोस्ट)  
हैदराबाद - 501510 / Hyderabad-501510

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

In presence of

In presence of

1. *M. V. Nageswara Rao*  
(M.V. NAGESWARAO)  
Manager, C-DAC

1. *Kanadei*  
Head, CSE, CBIT

2. *Srinivasan*  
(Srinivasan G)  
Joint Director C-DAC

2. *[Signature]*  
Professor, CSE, CBIT.

## Annexure-I

### Bridge Module Definition

National Skill Development Agency (NSDA) definition of Bridge Course is as follows: "Bridge Course is a course designed to equip students to take up a new subject or course by covering the gaps between the students' existing knowledge and skills and the subject or course prerequisites and assumed knowledge". Each Bridge module is essentially a preparatory level course (as per NSDA definition) for the accredited Occupational Standard (OC) of the respective technology verticals under FutureSkills PRIME.

*Bridge Course 1: Pragmatic Approach to Cyber Security - Towards  
Detecting and Mitigating Cyber Security Threats  
Technology: Cyber Security*

### 1. Course Objective

The objective of this module is to equip IT professionals with strong fundamentals in the Cyber Security domain. This course builds core competencies in the area of Network, End System and Application Security that acts as a bridge for advanced deep skilling courses which are aligned to National Occupational Standards (NOS) defined under the National Skill Qualification Framework (NSQF). This course offers a virtual lab through which participants gain hands-on training on various security tools with an aim to detect and mitigate Cyber Security threats

### 2. Learning Outcomes

- Analyze the live network traffic for detecting the attacks that abuse the TCP/IP Network Protocol vulnerabilities
- Use of security tools for analyzing the network traffic and end system vulnerabilities
- Leverage the Cryptography concepts for protecting the data
- Understand application vulnerabilities and their mitigation techniques
- Understand OWASP Top 10 Vulnerabilities
- Understand the latest trends in Malware and Cyber Attacks
- Design Defensive Network architectures
- Hardening the Operating System
- Understand Secure Development Life Cycle (SDLC)



### 3. Course Prerequisites

Familiarity with Linux Operating System

### 4. Conduction Mode

Online/Blended

### 5. Syllabus

As per the guidelines, the bridge course is mapped to the Qualification Pack/National Occupation Standard (NOS). This course would consist of one or more Bridge Modules

1. Linux Environment
  - a. Basic commands & File Structure
  - b. Linux Installation
  - c. Shell Scripting
  - d. TCP/IP Cyber Security perspective
  - e. Understanding TCP/IP towards Cyber Security
  - f. Cyber Security: Background and Current Trends
2. Security Threats & Vulnerabilities
  - a. Common Network Attacks
  - b. Security Threats & Vulnerabilities
  - c. Cyber Security Current Trends
3. Cryptography and Network Security
  - a. Cryptography & its applications
  - b. Network Security & protocols for secure communication
4. Overview of End system security
  - a. OS Security and Hardening
  - b. Authentication, Authorization and Accountability
  - c. Event Log Analysis
  - d. Endpoint Security Solutions
5. Overview of Network defence
  - a. Network Components (Firewall, IDS, Router)
  - b. Defensible Network Architecture
6. Application Security
  - a. Common Applications vulnerabilities (Buffer, heap overflows)
  - b. Web Application Security
  - c. OWASP Top 10



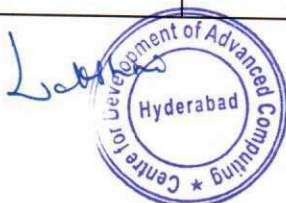
7. Threat Modelling
8. Overview of Malware Analysis

## 6. Course Duration

The total duration of the course is 90 hours (40% Theory sessions and 60% Demonstration & Labs). This course would be spread across either three to five weeks.

## 7. Lab Details

<i>Topic</i>	<i>Objective</i>	<i>Tools</i>
Linux Environment	<ul style="list-style-type: none"> <li>● To get familiar with Linux commands and file structures</li> <li>● Write shell scripts for routine tasks</li> </ul>	<ul style="list-style-type: none"> <li>● VMware</li> <li>● Bash</li> </ul>
TCP/IP Cyber Security perspective	<ul style="list-style-type: none"> <li>● Demonstrate the understanding of TCP/IP Protocols</li> <li>● Analyze the network traffic for protocol vulnerability</li> </ul>	<ul style="list-style-type: none"> <li>● Wireshark</li> <li>● Tcpdump</li> </ul>
Security Threats & Vulnerabilities	<ul style="list-style-type: none"> <li>● Understand the common network attacks, detection and mitigation techniques</li> <li>● Exposure to tools and techniques for identifying the vulnerabilities</li> </ul>	<ul style="list-style-type: none"> <li>● Cain and Abel</li> <li>● Ettercap</li> <li>● Nmap</li> <li>● Nessus</li> <li>● Metasploit</li> </ul>
Cryptography and Network Security	<ul style="list-style-type: none"> <li>● Understand the concepts of cryptography and leveraging these techniques in the Network Security</li> <li>● Understand various network protocols</li> <li>● Creation of Certification Authority and Integration with Apache Web Server</li> <li>● Configuring E-mail &amp; Remote Access Applications</li> </ul>	<ul style="list-style-type: none"> <li>● Openssl</li> <li>● Apache Server</li> </ul>
Overview of End System Security	<ul style="list-style-type: none"> <li>● Hardening of latest Windows OS and one Linux distribution</li> <li>● Understand SELinux concepts</li> <li>● Understand and analyze events for detecting the cyber attack</li> <li>● Understand different endpoint security solutions</li> </ul>	<ul style="list-style-type: none"> <li>● Windows &amp; Linux VM</li> </ul>



Overview of Network Defence	<ul style="list-style-type: none"> <li>• Configuration of Firewall, IDS &amp; Router</li> </ul>	<ul style="list-style-type: none"> <li>• IPTables</li> <li>• Demos of Firewall, IDS, IPS</li> </ul>
Application Security	<ul style="list-style-type: none"> <li>• A case study demonstrating Web Application vulnerabilities and hardening the application</li> <li>• Understand the web traffic using various security tools</li> <li>• Understand Top 10 vulnerabilities</li> </ul>	<ul style="list-style-type: none"> <li>• Nikto, OWASP ZAP, Dirbuster, Ssltest, testssl, httpprint &amp; Burpsuite</li> </ul>
Threat Modelling	<ul style="list-style-type: none"> <li>• Understand threat attack surface</li> <li>• A case study demonstrating threat modelling for an application</li> </ul>	<ul style="list-style-type: none"> <li>• Microsoft Threat Modeling Tool</li> <li>• OWASP Threat Dragon tool</li> </ul>
Malware Analysis	<ul style="list-style-type: none"> <li>• Understand different types of malware</li> <li>• Exposure to Static and Dynamic Analysis</li> </ul>	<ul style="list-style-type: none"> <li>• CFF Explorer, Strings, procmon, regshot</li> </ul>



## Bridge Course 2: Introduction to Blockchain Technology

Technology: Blockchain

### 1. Course Objective

Blockchain Certification Training course provides the participants with insights into Blockchain technology and its platforms. It provides an overview of the structure and mechanism of Blockchain. The participants will be able to understand how transactions are stored in a block and mined on a Blockchain. The course acts as a bridge for advanced deep skilling courses which are aligned to National Occupational Standards (NOS) defined under the National Skill Qualification Framework (NSQF). This course offers a virtual lab through which participants gain hands-on training on popular tools/platforms used in developing core Blockchain. (<https://futureskillsprime.in/course/introductionto-blockchain-technology>)

### 2. Learning Outcomes

- Provides insights into Blockchain technology and its platforms. Provides an overview of the structure and mechanism of Blockchain.
- Knowledge about popular tools/platforms used in developing core Blockchain.
- Course includes sessions on Ethereum Blockchain platform. Participants would be able to know how to deploy smart contracts on Ethereum.
- Use-cases will ascertain how Blockchain technology is shaping the future of the world.

### 3. Course Prerequisites

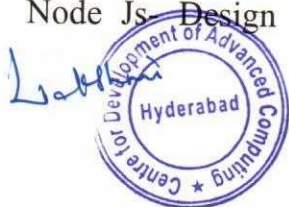
Basic programming skills and proficiency in any programming language such as Java, C++, or Python

### 4. Conduction Mode

Online/Blended

### 5. Syllabus

- Introduction to Blockchain-Distributed Ledger Technologies.
- How to Develop basic codes using blockchain tools/platforms.
- Interpret the applications of blockchain across different industry verticals.
- Prior Learning Module (includes front end development approach through CSS, HTML, JavaScript, PHP and a database, Python/Go language/Java/Node Js- Design process including Work flow and Problem solving



approach)

**6. Course Duration**

The total duration of the course is 90 hours (40% Theory sessions and 60% Demonstration & Labs). This course would be spread across 90 days.





**Bridge Course 3: 3D Printing and CAD Modeling**  
Technology: 3D Printing / Additive Manufacturing

### **Course Objective**

Objective of this course is to demonstrate the viability of utilizing Additive Manufacturing technology to develop product prototypes and Develop skills to allow for prototype models for a range of products to be produced. This course acts as a bridge for advanced deep skilling courses which are aligned to National Occupational Standards (NOS) defined under the National Skill Qualification Framework (NSQF).

### **3. Target Audience**

- IT professionals, Non-IT professionals working in IT/ITeS industries
- State Govt. & Central Govt. Employees
- Employees from PSUs and Autonomous institutions
- Faculties of educational institutes
- Students of 3<sup>rd</sup> year and 4<sup>th</sup> year of Btech, Mtech or equivalent degrees.
- Fresh Recruits
- Interns/Apprentices.

Note: They will be applicable for the incentive program only if they have internship/apprenticeship certificate.

### **4. Course Prerequisites**

Familiarity with Mechanical CAD and Manufacturing Technologies

### **5. Conduction Mode**

Online/Blended

### **6. Syllabus**

Module1 - Introduction to Additive Manufacturing

- Evolution of 3D printing
- Various 3D printing technologies
- Fused deposition modelling (FDM) in detail



## Module 2 - CAD Modeling

- Creating support less designs
- Optimizing for orientation
- Achieving accuracy and fit

## Module 3 - Prototyping using 3D Printer

- Design guidelines for printing
- Designing assemblies
- converting CAD model to STL format
- Print settings

## 7. Course Duration

The total duration of the course is 90 hours (40% Theory sessions and 60% Demonstration & Labs). This course would be spread across 90 days.

