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Expression of Interest
for
Engagement of Training Institutes/ Spokes

FutureSkills PRIME–Programme (Blockchain)

Funded by

Ministry of Electronics & Information Technology (MietY)

Implemented jointly by

SSC NASSCOM (Key Implementing Agency) and Programme Management Unit

Conducted by

**NIELIT Kolkata (Lead center), NIELIT Patna (Co Lead Center), NIELIT Srinagar/
Jammu (Co Lead Center), C-DAC Hyderabad (Co Lead Center)**

1. About this document: This document will act as a booklet which includes the guideline for intended spokes/ institutes desired to Participate in the Blockchain Training Program in association with the Lead & Co-lead centers. Initially the program is implemented through NIELIT centers and other Govt. Institutes. The courses that will be covered will be updated from time to time. However the topic is Blockchain and all the courses will be in this area only.

2. Objective of FutureSkill-PRIME:

To create a re-skilling/ up-skilling ecosystem in Blockchain 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 online platform hosted on cloud to encourage any-time, any-where, self-paced learning. 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.

3. Introduction:

NIELIT Kolkata has been identified as the Lead Resource centre and NIELIT Patna, NIELIT Srinagar/ Jammu, C-DAC Hyderabad have been identified as Co lead Resource centre under ‘Future Skills PRIME–Programme for Re-skilling/ Up-skilling of IT Manpower for Employability’ 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 for Blockchain Technology under Ministry of Electronics & Information Technology (MeitY) for Blockchain technology.

Expression of interest is invited from NIELIT Center, CDAC Center, Institutes under Ministries, State Government and associated departments, Govt. Universities/Colleges for conducting bridge course in Blockchain for achieving the target.

Institutes from different places may apply as per following table,

Sl No	States	Lead/Co Lead center
1	West Bengal, Assam, Manipur, Mizoram, Meghalaya, Arunachal, Nagaland, Tripura, Sikkim, Odisha, Andaman and Nicobar Islands, Delhi, Madhya Pradesh	NIELIT Kolkata
2	Bihar, Jharkhand Uttar Pradesh,	NIELIT Patna

NIELIT Kolkata, NIELIT Patna, NIELIT Srinagar/Jammu, C-DAC Hyderabad

	Utterakhand, Chattishgarh, Rajasthan, Gujrat	
3	Srinagar/ Jammu, Ladakh, Himachal Pradesh, Haryana, Punjab, Chandigarh,	NIELIT Srinagar/ Jammu
4	Andhra Pradesh, Telangana, Tamil Nadu, Kerala, Karnataka, Maharashtra, Goa, Dadra and Nagar Haveli and Daman and Diu, Lakshadweep, Puducherry	C-DAC Hyderabad

The above jurisdiction is a tentative one and has been prepared considering the geographical vicinity. However any NIELIT/C-DAC center/ any Govt. institute may apply to any Lead or Co Lead center.

The Blended Learning courses in Blockchain technology envisage that Bridge course would be conducted by identified spokes/participating institutes as per syllabus attached as Annexure-I. Any other bridge course introduced in future will be communicated to the identified spokes/institutes.

Total participants to be trained under bridge course over 3 years,

Sl No	Course Category	Target	Implementing Center	Year-1	Year-2	Year-3
1	Bridge Courses	3500	Lead	700	1400	1400
2		1500	Co-Lead	100	200	200

1. Eligibility of the Institute to join in the program

NIELIT Centers, CDAC Centers, Institutes under different Ministries, State Government and associated departments.

2. Conducting the Training Program

While Conducting the Training Program the Institute must assure the followings. This is an indicative list, it may vary with actual.

i. Infrastructure –

Hardware:

- Minimum 20 number of Computer (1:1) with following specifications, i5/ i7, 8 GB RAM, 2TB SATA
- Internet Connectivity: Good & stable internet connectivity
- Projector
- Webcam, Speaker
- Printer & Scanner

Online Tools:

NIELIT Kolkata, NIELIT Patna, NIELIT Srinagar/Jammu, C-DAC Hyderabad

- a) Jitsi Meet used for conducting the online classes
- b) Remix, ethehreum.org used for development and deployment of Smart contracts in Ethereum using Solidity
- c) CryptoWallet –Metamask
- d) andersbrownworth.com

Softwares:

- a) nodejs,web3.js,Hyperledger fabric,Ubuntu.
- b) Local Blockchain Development tool using-Ganache
- c) Go language for Development of chaincode in Hyperledger using eclipse IDE
- d) SSL in Ubuntu for public key and private key generation demonstration.

ii. Requisite Faculty Qualification–

- a) Faculty –Phd/M-Tech/ MCA / B.E/ B.Tech / M.Sc in Computer Science or Information technology having sufficient knowledge on Blockchain Technology. The Trainer must attend the Trainers Training Program conducted by NIELIT Kolkata as Lead Resource Center.
- b) Lab Instructor –BE/ B-Tech in computer Science or Information technology having sufficient knowledge in Blockchain Technology. The Trainer must attend the Trainers Training Program conducted by NIELIT Kolkata as Lead Resource Center.

3. Training fees (payable by the participants)

The course fees of bridge course is Rs 6000/- + GST. This amount is a proposed one. And will be finalized by the Technical Subcommittee. After finalization it will be applicable to all. Also the payment procedure will be informed to all centers after finalization.

4. Details of Incentives / Financial Assistance to the participants

Incentive for Bridge Course: To registrar for a bridge course, a virtual Skills Wallet would be assigned to each candidate on registration. 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 limited to a maximum of 50% of the course fee paid by the candidate which would not exceed Rs 3000/-.

5. Amount Payable to the Lead/ Co-lead center by the spokes/institutes

20% of the course fees paid by the students are to be shared with Lead/ Co lead center under which the spoke/institute has been registered. This amount has to be paid before completion of the course and will enable to issue the certificate.

6. Training Location

The training will be in online/offline/blended learning mode

7. Assessment and Certification:

After successful completion of the Bridge course candidates are required to take the Bridge Course Assessment conducted by a third-party agency identified by SSC NASSCOM.

Subsequent to the completion of a course by the candidate, The Lead/ Co lead center would provide a Course Completion letter. Assessment would only be carried out for those candidates who will produce a Course Completion letter from Lead/ Co lead center. However issuance of final certificate is subject to successfully passing the exam conducted by SSC NAASCOM. The wallet related matter will be enabled after that.

Re-examination for unsuccessful candidates will be done as per guideline of PMU & NASSCOM.

8. Registration of Students

- i. The students are to be registered as per registration guideline to be notified later.
- ii. The admission of a student will be confirmed after registration. Without valid registration the students cannot be given any confirmation by the institute.
- iii. The student should submit necessary required documents like Aadhar Card/ PAN Card/ Voter ID/ Passport/ Driving License along with the application form.

9. Roles & Responsibilities of Spoke institute:

- i. The institute is responsible to support the participants towards entire lifecycle of their involvement in the bridge course program.
- ii. Spoke institute will arrange for all infrastructure requirements including Computer Lab and Faculty for running an institute and will be responsible for completing the training modules as provided by NIELIT Kolkata, NIELIT Patna, NIELIT Srinagar/ Jammu and C-DAC Hydrabad.

10. A MoU in this regard need to be signed with Lead/ Co Lead center.

Annexure – I Syllabus

Course Name: Bridge Course in Blockchain Technology

Eligibility: BE/B-Tech, Post graduate in Science and Higher

Sr. no	Topic Details	Total duration	Theory hours	Practical Hours
01	Blockchain – The Basics & Applications, Consensus Algorithms and concept in Mining	20	15	5
02	Linux Fundamentals and Dockers Platform	30	7	23
03	Introduction to the concepts of Cryptography	24	12	12
04	Introduction to concepts of Bitcoin, Cryptotokens with an example	6	2	4
05	Ethereum and Its Applications. Introduction to concepts of web3.js, nodejs	16	2	14
06	Introduction to Solidity concepts with application to Smart Contract	10	3	7
07	Introduction to Go language with application to Hyperledger-Fabric	14	4	10
		120	40	80

DECLARATION:

- i. I,.....son/
daughter/wife of..... have read and understood the
GUIDELINES / INSTRUCTIONS FOR CONDUCTING THE COURSE and agree
to abide by the same.
- ii. I certify that I am the competent authority, by virtue of the administrative and
financial powers vested in me by to furnish the above
information and to undertake the above stated commitment on behalf of the
organization
- iii. I am aware that in case any information given by me is found false or misleading
my organization would be debarred from the conduction of the course besides being
subjected to any other action that may be deemed fit by NIELIT Kolkata, NIELIT
Patna, NIELIT Srinagar/ Jammu, C-DAC Hyderabad.
- iv. The details furnished with regard to faculty and infrastructure is correct to the best
of my knowledge and belief and we will ensure availability of these facilities on a
continued basis till we continue to offer candidates for the courses applied.
- v. I agree to abide by the decisions of the NIELIT Kolkata, NIELIT Patna, NIELIT
Srinagar/ Jammu, C-DAC Hyderabad or its designated agencies in respect of my
application for permission to offer candidates for the courses conducted by NIELIT
Kolkata, NIELIT Patna, NIELIT Srinagar/ Jammu, C-DAC Hyderabad I agree to all
terms & conditions mentioned in the EOI Ref no: NIELIT/KOL/

Signature of the Witness:

Name:

Designation:

Date:

Address:

Seal of the organization

Signature of the

Authorized Signatory:

Name:

Designation:

Date:

Address:

Seal of the organization