

સ્ટેટ નોડલ ઓફીસ, રૂસા, ગુજરાત રાજ્ય

નોલેજ કોન્સોર્ટિયમ ઓફ ગુજરાત, નવરંગપુરા, અમદાવાદ-૧૫

Various Vocational Courses Training Techno Commercial Bid

રાષ્ટ્રીય ઉચ્ચત્તર શિક્ષા અભિયાન એ કેન્દ્ર પ્રાયોજિત યોજના છે. સ્ટેટ નોડલ ઓફીસ, રૂસા, હેઠળ ગુજરાત રાજ્યની વિવિધ કોલેજોમાં વિવિધ વ્યવસાયલક્ષી કોર્સ(Artificial Intelligence & Machine Learning, Internet of Things, Data Sciences, Block Chain, Cyber Security)ની તાલીમ આપવાની થાય છે જે અંતર્ગત આ માટે વિવિધ વ્યવસાયલક્ષી કોર્સની તાલીમ આપી શકે તેવી લાયકાત ધરાવનારા Original Equipment Manufacturer(OEM) or Authorized company or Agency પાસેથી Techno Commercial Bid આમંત્રિત કરવામાં આવે છે. બીડરો માટે Techno Commercial Bid ડોક્યુમેન્ટ અને વધારાની અન્ય માહિતી www.kcg.gujarat.gov.in વેબસાઈટ પર ઉપલબ્ધ છે. Techno Commercial Bid જમા કરાવવાની છેલ્લી તારીખ:૧૭/૦૬/૨૦૨૧ અને ૧૭:૦૦ કલાક છે.

સ્ટેટ પ્રોજેક્ટ ડાયરેક્ટર,

રૂસા, ગુજરાત રાજ્ય

**STATE NODAL OFFICE, RUSA, Gujarat State
Knowledge Consortium of Gujarat, Navarangpura Ahmedabad-15
Various Vocational Courses Training Techno Commercial Bid**

Rastriya Uchchar Shiksha Abhiyan is centrally Sponsored Scheme. Under State Nodal Office, RUSA, Gujarat organizes various Vocational Courses (Artificial Intelligence & Machine Learning, Internet of Things, Data Sciences, Block Chain, Cyber Security) training for the student at various colleges of the State. State Nodal Office, RUSA invites Techno Commercial Bid from Original Equipment Manufacturer(OEM) or Authorized company or Agency those who are providing various Vocational Courses Training. Bidders can check Techno Commercial Bid documents and additional information at www.kcg.gujarat.gov.in. The last date for submission of Techno Commercial Bid is 17/06/2021 17:00 hours.

State Project Director,
RUSA, Gujarat State



Tender for Techno-Commercial BID for Various Vocational Courses

Vocational Course Training

**RASHTRIYA UCHCHTAR SHIKSHA ABHIYAN (RUSA)
STATE NODAL OFFICE
THE KNOWLEDGE CONSORTIUM OF GUJARAT, AHMEDABAD**



**Through offline Tender Process
(Tender Fees Rs.5000)**

**STATE NODAL OFFICE, RUSA
KNOWLEDGE CONSORTIUM OF GUJARAT
“Pragna Puram”, Opposite Physical Research Laboratory,
Navarangpura, Ahmedabad-380006
Phone-079-26302067/26302077
Email:kcgrusa@gmail.com**

May 2021

Tender Documents to be addressed to	State Nodal Office RUSA (KCG), "Pragna Puram", Opp. PRL, Ahmedabad 380015
Issue of Tender	From 27/05/2021 to 17/06/2021 up to 17.00 hrs.
Tender Fee	Rs. 5000=00
In favor of	State Nodal Office, RUSA
Pre Bid Date and Time and venue	01/06/2021 at 14:30 PM Conference Hall, Knowledge Consortium of Gujarat (KCG), "Pragna Puram", Opp. PRL, Ahmedabad 380015
Bid due Date & Time:	17/06/2021 up to 17.00 hrs.
Bid Submission Address:	State Nodal Office RUSA (KCG), "Pragna Puram", Opp. PRL, Ahmedabad 380015
Technical Bid Opening (Date & Time):	18/06/2021 up to 15.00 hrs.
Venue for technical bid opening	Conference Hall, Knowledge Consortium of Gujarat (KCG), "Pragna Puram", Opp. PRL, Ahmedabad 380015



RASTRIYA UCCHTAR SHIKSHA ABHIYAN (RUSA)
STATE NODAL OFFICE
KNOWLEDGE CONSORTIUM OF GUJARAT
Autonomous body of Department of Education,
Government of Gujarat



1. Introduction :-

Rashtriya Uchcharat Shiksha Abhiyan(RUSA) is a Central Sponsored Scheme(CSS), launched in 2013, aims at providing strategic funding to eligible state higher educational institutions. The central funding (in the ratio of 60:40 for general category States and 90:10 for special category states) would be “Norm Based” and “Outcome Dependent.” The funds flow the Central Ministry through the State Governments/Union Territories to the State Higher Education Councils – State Nodal Office- RUSA Gujarat before reaching the identified institutions.

Knowledge Consortium of Gujarat is a State Nodal Office RUSA- Gujarat for the successful implementation and execution of RUSA project in the State of Gujarat. The KCG provides RUSA grant(s) to Universities/ Colleges/Institutions as per the RUSA guidelines in the State of Gujarat.

The State Nodal office RUSA -Gujarat, KCG intends to empanel OEM or Authorized Company or agency for various Vocational Courses for the students of various colleges in the state for its Projects/initiatives as described in Annexure-1 below.

General Terms and Conditions of Tender notice and assignments are mentioned as per Annexure -2

Details of scope of work, other terms & conditions are as per (Annexure-3)

Each OEM or Authorized Company or agency complying with the minimum eligibility criteria should send technical bid for various Vocational Course Training OEM or Authorized Company or agency assignments (Annexure-4) in sealed cover and are required to quote fees in financial bid for the said assignments for the year 2021-22 and 2022-23 (Annexure-5)

Only the OEM or Authorized Company or agency meeting with the minimum eligibility criteria should send their proposals. Further, each OEM or Authorized Company or agency meeting with the said criteria and submitting the proposal has to attach required supporting evidences/documents as mentioned in (Annexure-4).

OEM or Authorized Company or agency providing various Vocational Courses meeting with the eligibility criteria are requested to submit their proposals in

physical form containing technical bid (Annexure-4) in one sealed cover super scribed as 'THECHNICAL BID FOR THE EMPANELLEMENT OEM OR AUTHORIZED COMPANY OR AGENCY FOR VARIOUS VOCATIONAL COURSE TRAINING FOR RUSA' along with another sealed cover for financial bid mentioning the fees for various vocational courses training services assignments (Annexure-5) super scribing it as 'FINANCIAL BID FOR THE EMPANELLEMENT ORIGINAL EQUIPMENT MANUFATURER(OEM) OR AUTHORIZED COMPANY OR AGENCY FOR VARIOUS VOCATIONAL COURSE TRAINING FOR RUSA' TO "The State Project Director RUSA, KCG, at 'Pragna Puram Campus', Near L D College of Engineering, Opp. P.R.L., Ahmedabad - 380006 through /R.P.A.D./Speed Post/Physically on or before 17/06/2021 up to 17.00 hrs.

Technical bid submitted by the OEM OR AUTHORIZED COMPANY OR AGENCY meeting the eligibility criteria will be evaluated and marks will be assigned as per marking system. Financial bids of only those OEM OR AUTHORIZED COMPANY OR AGENCY OF successfully passing the technical evaluation will be considered for opening of financial bids. ORIGINAL EQUIPMENT MANUFATURER(OEM) OR AUTHORIZED COMPANY OR AGENCY will be selected on "L1 basis" on evaluation of technical and financial bids jointly. In case of Non acceptance of the assignment selection of the Firms will be made on next Lower Bid.

For Scope of work, other terms and conditions, format of technical bid & financial bid, reports/outputs etc. please go through the below mentioned Annexures.

Date:-27/05/2021

**State Project Director,
RUSA.**

Place:-Ahmedabad

Annexure-1:-

Details of Proposed Projects:-

RUSA Nodal Office, RUSA-GUJARAT, KCG, invites Technical Bid and Commercial Bid for its below mentioned Projects/Schemes:

Sr. No.	Particular	Brief Description
1.	Rashtriya Uchchar Shiksha Abhiyan (RUSA)	<p>Rashtriya Uchchar Shiksha Abhiyan(RUSA) is a Central Sponsored Scheme(CSS), launched in 2013, aims at providing strategic funding to eligible state higher educational institutions. The central funding (in the ratio of 60:40 for general category States and 90:10 for special category states) would be “Norm Based” and “Outcome Dependent.” The funds flow the Central Ministry through the State Governments/Union Territories to the State Higher Education Councils – State Nodal Office- RUSA Gujarat before reaching the identified institutions.</p> <p>Knowledge Consortium of Gujarat is a State Nodal Office RUSA- Gujarat for the successful implementation and execution of RUSA project in the State of Gujarat. The KCG provides RUSA grant(s) to Universities/ Colleges/Institutions as per the RUSA guidelines in the State of Gujarat.</p>
2.	Component 12	Under Component 12 RUSA Vocationalization of Higher Education, RUSA provide various skills to the students of colleges of various district of the Gujarat State.

Annexure -2:-

General Terms & Conditions of the Tender Notice/Assignment: -

1. All Annexures mentioned hereinafter form integral part of this tender notice. Firm/ Agency will have to perform the functions as per the scope of work and other terms and conditions mentioned in (Annexure 3).
2. ORIGINAL EQUIPMENT MANUFATURER(OEM) OR AUTHORIZED COMPANY OR AGENCY those who (will provide various vocational courses training with necessary hardware and related licensed Software) will meet with the eligibility criteria are requested to submit their proposals in physical form containing technical bid (Annexure-4) in one sealed cover super scribed as 'THECHNICAL BID FOR THE EMPANELLEMENT OEM OR AUTHORIZED COMPANY OR AGENCY FOR VARIOUS VOCATIONAL COURSE TRAINING FOR RUSA' along with another sealed cover for financial bid mentioning the fees/charges for various vocational courses training assignments (Annexure-5) super scribing it as 'FINANCIAL BID FOR THE EMPANELLEMENT ORIGINAL EQUIPMENT MANUFATURER(OEM) OR AUTHORIZED COMPANY OR AGENCY FOR VARIOUS VOCATIONAL COURSE TRAINING FOR RUSA' TO "The State Project Director RUSA, KCG, at 'Pragna Puram Campus', Near L D College of Engineering, Opp. P.R.L., Ahmedabad - 380006 through /R.P.A.D./Speed Post/Physically on or before 17/06/2021 up to 17.00 hrs.
3. Bid covers must be reached at the office of State Nodal Office, RUSA Gujarat, Pragna Puram Campus', Near L D College of Engineering, Opp. P.R.L. Ahmedabad, Gujarat on 17/06/2021 up to 17.00 hrs.
4. Technical bids submitted by the OEM OR AUTHORIZED COMPANY OR AGENCY meeting with the minimum eligibility criteria will be evaluated and marks will be assigned as per marking system. Financial bids of only those OEM OR AUTHORIZED COMPANY OR AGENCY successfully qualifying in the

technical evaluation process will be considered for opening of financial bids. OEM OR AUTHORIZED COMPANY OR AGENCY will be selected on "L1(Lower-1) basis" on evaluation of technical and financial bids jointly. In case of Non acceptance of the assignment selection of the Firms will be made on next Lower Bid.

5. Appointment of Empanelment orders will be issued to the qualified OEM OR AUTHORIZED COMPANY OR AGENCY in completion of the process of selection as mentioned above.
6. The Empanelment will be initially for a period of twelve months i.e. from June 2021, however it may be renewed or extended for one year as per the mutual discussion.
7. The whole Process of the Tendering/bid can be Cancelled / Modified / redefined / Altered by the Management of the State Project Director, State Nodal Office, RUSA without giving any prior notice or information.
8. In case of Termination after the acceptance of assignment on dissatisfaction to the management, the assignment will be given to the OEM OR AUTHORIZED COMPANY OR AGENCY having next Lower Financial Bid.
9. Any Other influence of any type may disqualify the bidder and the bid will be outright rejected.
10. Various Tax will be paid extra as per applicable rate from time to time as per Government Rule of Government of India as well as State Government.

Annexure -3

Scope of work for each Assignment and Manpower requirement for each assignment:

3.1 Scope of Work:

1. The Empaneled OEM OR AUTHORIZED COMPANY OR AGENCY has to provide various courses for training to the students of various colleges of Gujarat along with related hardware and software facilities.
2. The average batch size will be 20 to 30.
3. Infrastructure facility like server or specialized software will have to be provided by OEM or Authorized Company or Agency. However, dedicated Computer(Desktops) / similar required infrastructure will be provided by the concerned college.
4. The study material will be provided by the Agency/firm (OEM or the authorized company/agency) in E-version
5. The empaneled agency has to submit training report related with photographs and progress report of the student in the soft copy to SNO RUSA, Gujarat, Principal of the Concern College/ HOD of the Department and authority training Partner.
6. Duration of the Course

Certification programs – recommended training hours and assessment duration:

Sr. No.	Certification Programs / Titles	Recommended Course duration	Assessment Duration
1	Artificial Intelligence and Machine Learning	12 weeks	180 Minutes
2	Internet of Things	12 weeks	180 Minutes
3	Data Sciences	12 weeks	180 Minutes
4	Block Chain	12 weeks	180 Minutes
5	Cyber Security	12 weeks	180 Minutes

3.2 Specifications - Hardware

Sr. no			Qty
1	Server Specification - Power 9 AC 922 server with NVIDIA 4 GPU	<ul style="list-style-type: none"> Server 1: 8335 Model GTH with NVIDIA Tesla V100 GPU with NVLink Air-Cooled (32 GB) 2 x 1TB 7.2k RPM 5xx SATA SFF-4 Disk Drive 256 GB DDR4 Memory 2 x PCIe2 LP 4-Port (10Gb+1GbE) SR+RJ45 Adapter 2 x 16-core 2.7 GHz (3.3 GHz Turbo) POWER9 Processor 2 x 1TB 7.2k RPM 5xx SATA SFF-4 Disk Drive 2 x High Function 9xC19 PDU: Switched, Monitoring Red Hat Enterprise Linux 7 for Power (le) Per Svr up to 2 Skts IPL 15L w 3yr STD Sub OEM Support Line for Linux on Power - 3 Year 3 years Support Line for Linux 9x5 per Server PowerAI V1.5 	1 No.
2	Intel Servers	<ul style="list-style-type: none"> Intel Processor Cores - 6 RAM: 128 GB Hard Disk: 2 TB Red Hat Enterprise Linux 7 Monitor: 24-inch 1200x1024 screen resolution 16-bit color (recommended 256-bit color) Graphics Card: 2 GB 3 Years warranty 	4 No.

• Descriptive Tool (AI/ML and Data Analytics)

Criteria	Bidder's Confirmation Yes/No	Bidder's Comments
Must Have		
1. Multiple Data connectors to import into BI Tool; not limited to MS SQL, Excel, Oracle, DB2, PostgreSQL, My SQL		
2. User-based data security, Row-level security & folder level security model		
3. Download report into pdf, excel, image, etc., to be inserted into a presentation, if needed or downloadable as presentation		
4. Mobile application available in play store and apple		
5. R I python Integration		
6. Location intelligence		
7. NLP querying capabilities		

8. Interactive/Self Service capability in the view mode		
9. Leading data visualization capabilities		
10. Tool support should have a presence in India for implementation and support either directly or through an authorized partner		
11. If needed , the BI tool vendor should support us during the trial or POC period		
12. Support in SSL I TLS, HTTPs set up		
13. The vendor shall list the detailed matrix including features/version/ cost. If this is cost/license related, we can add them separately.		
14. Scheduled or manual generation of Alerts notification with a custom message from dashboards		
15. Core-based license than a user-based License		
16. Integrate with Open Standard applications		
17. Information Security		
18. The product should have a documented process for Installation, Backup, DR process (including the licensing switchover if required during a disaster), Incident Management & Cyber Security Incident Recovery procedure		
19. The vendor shall give proper training to the Technical team for Installation and Troubleshooting. This is in addition to the Product training.		
20. The product should support Microsoft Active Directory integration with Single Sign-on.		
21. Cost/license should bundle the support/escalation process along with the proposal		
22. The impact of the version change/ upgrade document should be available every time a new release is published		
23. The product should not have any limitations including Technical I Legal I Compliance based on Geographical usage. If any, please mention the alternatives/ workaround.		
24. If transaction-level data is published I if there is a plan to publish transaction data in future, the product should support encryption options at all levels including a) OS.		
25. A ready to use web interface to provide analytics to their end users		
26. The ability to provide end customers sophisticated visualizations		
27. Ability to achieve a Single Sign on experience, leveraging on current authentication models		
28. Automation capabilities that allow for replication of settings across clients		
29. Availability of APIs to extend functionalities and automate user management		
30. Proven capabilities of this being done with other clients		
31. Availability of active community to assist in the tool		
32. Urgent support /near real-time support on critical cases		

33. Easy and flexible Implementation Services		
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- **Predictive Tool (Data Analytics and AI/ML)**

SR.NO	Criteria	Bidder's Confirmation Yes/No	Bidder's Comments
2			
2.1.1	The platform should support open source languages like R, Python and Scala		
2.1.2	The platform Graphical user interface for code-free model development and integrate with Open Source, coding should be also an option		
2.1.3	The platform should support end to end data science lifecycle allowing the data scientists to build , train, evaluate and deploy the model.		
2.1.4	The Data Science Platform should be integrated with software components for different flavors of analytics like Planning Analytics, Descriptive Analytics and Prescriptive Analytics.		
2.1.5	The Data Science Platform should support visual binning to transform the numeric variables into a categorical variables .		
2.1.6	The platform should support Data Auditing and displays a report that provides summary statistics, histograms, and distribution graphs that may be useful in gaining a preliminary understanding of the data. The report should also display information about outliers, extremes, and missing values, and offers tools for hand ling these values.		
2.1.7	The Data Science Platform should support automated data transformation into the best format for accurate predictive modelling.		
2.1.8	The platform should support Feature Extraction & Screening in order to locate fields and records that are most likely to be of interest in modelling		
2.1.9	The Platform should support automated modelling to estimate and compare a number of different modelling methods, enabling the Data Scientists to try out a variety of approaches in a single modelling run. You can select the modelling algorithms to use, and the specific options for each, including combinations that would otherwise be mutually exclusive. - Auto Classifier, Auto Numeric and Auto Cluster		
2.1.10	The platform should offer a wide range multiple machine learning techniques including but not limited to decision trees, neural networks and regression models.		
2.1.11	The Data Science Platform should also provide algorithms out of the box for Clustering, Anomaly Detection , Association		
2.1.12	The Platform should provide algorithm for Forecasting - Statistical - ARIMA I Exponential Smoothing		
2.1.13	The Platform should offer out of the box Python native algorithms		

2.1.14	The Platform should offer out of the box Spark native algorithms.		
2.1.15	The Platform should support multithreaded algorithms for parallel processing against big data.		
2.1.16	The Platform should provide the interface to leverage database resident algorithms to push the analytical processing to the database engine of the analytical repository.		
2.1.17	The Platform should support Regency, Frequency, Monetary (RFM) Analysis too determine` quantitatively which buyers are likely to be the best ones by examining how recently they last purchased from seller (regency), how often they purchased (frequency), and how much they spent over all transactions (monetary). The reasoning behind RFM Analysis is that buyers who purchase a product or service once are more 1 likely to purchase again.		
2.1.18	The Platform should allow the Data Scientists to Platform graphical analysis to gaining understanding of the underlying data.		
2.1.19	The Platform should support assembling of two or more models - combining two or more model to obtain more accurate predictions than can be gained from any of the individual models. By combining predictions from multiple models, limitations in individual models may be avoided, resulting in a higher overall accuracy. Models combined in this manner typically perform at least as well as the best of the individual models and often better.		
2.1.20	The Data Science Platform should allow testing of numerous modelling methods, compare results and select which model to deploy in a single run. This process informs users of the best-performing algorithm based on model performance		
2.1.21	The Platform should provide for Evaluation Chart to evaluate and compare predictive models to choose the best model for your application. The Platform should support Evaluation Charts such as Gains Chart, Lift Charts , Response Chart, Profits Chart, ROI Charts, ROC Charts		
2.1 .22	The Data Science Platform should support push back data processing with the SQL Optimization		
2.1.23	The Data Science Platform should support Text Mining to extract Concepts and Categories. The Platform should provide templates comprising a set of libraries, types, and some advanced resources to a particular domain or context such as product opinions.		
2.1.24	The platform should support deployment of the model in batch , on-demand and real time for scoring.		
2.1.25	The Platform should provide the mechanism to evaluate the ability of a model to generate accurate predictions. The platform should enable to perform various comparisons between predicted values and actual values (your target field) for one or more model nuggets. Analysis nodes can also be used to compare predictive models to other predictive models.		

- **SOC – Security (IOT)**

Criteria	Bidder's Confirmation Yes/No	Bidder's Comments
Must Have		
The solution should support integration with the critical databases such as DB2, Oracle, MS-SQL etc.		
The solution should offer automatic discovery of databases.		
The solution should provide sensitive data discovery options together with predefined data classification rules for various sensitive data types including PCI data, PII data and offers the ability for customization		
The solution should support user entitlement reviews on database accounts		
The solution should implement blocking		
- For blocking the solution should be using an agent.		
Solution should not be deployed in-line mode for blocking.		
The solution should use agent-based architecture.		
The solution agent should perform monitoring, blocking, redaction without any changes on the Database, network configuration & access mechanism.		
The solution should not require any logging to be enabled at the Database level. It should capture full SQL activities without enabling any database level Logging.		
The solution must monitor privileged user access or local SQL activity that does not cross the network such as Bequeath, IPC, Shared Memory , or Named Pipes		
The solution should have the ability to monitor data that is passed through encrypted transmissions such as oracle ASO		
The solution should include specialized threat detection analytics that scan and analyze audited data to detect symptoms that may indicate malicious stored procedure		
The solution should help in identifying abnormal server and user behavior and providing early detection of possible attacks using outliers.		
For example, User activity that is identified as a suspected outlier includes:		
- User accessing a table for the first time		
- User selecting specific data in a table that he has never selected before		
Exceptional volume of errors		
Activity that itself is not unusual but its volume is unusual		
Activity that itself is not unusual but time of activity is unusual. For example, a DBA is accessing a table more frequently than in the past. This indicates that he is downloading small amount data over time		
The solution should support setting up of compliance monitoring. It should have out of box accelerators for PCVDSS, Data Privacy .		

The solution should have multiple pre-configured policies & reports. Reports should address regulatory compliance such as SOX, PCI DSS, Data Privacy Law, GDPR etc.		
The solution should have easy drag & drop option to customize report without developing or require lot of customization/changes from scratch.		
Reports should be exportable via both PDF and Excel		
All reports generated via the solution should be stored in a secure manner and all alterations to the report generation and to the reports themselves should be auditable		
The solution should provide optimum utilization of resources by using Load balancing between servers. The solution should support Enterprise load balancing		
The solution should support dynamic redaction for privileged user thus certain fields such as Aadhaar number, credit card number could be easily hidden from the privileged DBA's.		
The solution should use internal DB to store the Logs.		
The solution should support normalization on the collected audit data thus if a same event occurs in short duration it should increase the count of event rather than creating a new event/log.		
The solution should provide incident management module which will help business- user with workflow automation for tracking and resolving the database security incidents.		
The solution should provide option of filtering option that only specific violation should be sent to SIEM.		
The solution should have Vulnerability Assessment module which can discover unpatched vulnerabilities , default credentials, database default configurations/ misconfiguration.		
The solution Vulnerability reports could be imported on a SIEM solution for providing a centralized vulnerability platform.		
Vulnerabilities on database without any changes/additional hardware in proposed solution. hardware in proposed solution.		
Solution must support filtering/hiding of the bind variables of all the SQL activities captured variables of all the SQL activities captured.		
The solution must identify down to the user level who is accessing which table & what SQL activity is performed by the database user		
The solution should provide means to profile data activity behavior together with tools to filter noise or known false positives		
Solution must be capable to monitor all type of user activity. This user can be local host, remote, database administrator, application user etc. and allow to configure to prevent specific command/user/table access		
Solution support individual user access auditing for packaged applications, like SAP, PeopleSoft, Siebel		
Audit records should contain all information required for understanding of the event including: Source and destination IP, DB and OS user name, source application , number of affected rows, and database instance name		
The solution should not store sensitive data in logs generated by the application (e.g. passwords)		
Logs and audit-trail generated by the solution should not be editable by users and should be read-only		

The solution should provide an internal workflow capability that allows users to raise issues and assign them to other users		
Alerting should be available via email, SNMP and Syslog		
Solution should be capable to integrate with third-party ticketing systems		
Solution should proactively alert the administrators for any type of activity necessary including Syslog, SNMP, emails, and pagers, or custom classes for distribution of alerts		
Solution must support role-based access and integration with enterprise directories and RADIUS		
Solution must be able to provide reports about database activity information including who logged in, DB user, application user, OS user, from where, how, etc.		
Solution must be able to monitor and log database traffic that is encrypted with SSL or IPsec.		
Solution must be able to capture complete DML, DDL statements and allow preventing unauthorized connection irrespective type of connection medium and user.		
The solution should detect excessive, unnecessary , unauthorized , suspicious or high risk activity in real-time for both internal and external users including privileged users.		
The solution should provide granular policy management by separate audit and security policies be created and managed at different granularity levels		
Solution should support to create whitelist or exceptions list to ignore monitoring certain items (e.g., ignore a column that has zip codes only). Solution set granular policies down to such levels as table, column, specific application, specific type of database, specific user ID, specific IP address, etc.		
The solution should be able to block excessive, unnecessary, unauthorized, suspicious or high-risk activity in real-time for privileged users		
The solution should audit accesses with elevated privileges, such as an administrator or system administrator account		
Solution must support prevention time based policy. Such as time of day/week.		
Solution must be able to perform content scanning for regular expression and patterns.		
Solution must be scalable in distributed environment with centralized console.		
Solution should support integration with LDAP and RADIUS		
Solution must have web based interface.		
Solution must provide a Command-Line-Interface (CLI) for scripting/automation purposes		
The solution should support integration with LDAP (AD)		
The solution should provide database change management workflow enforcing separation of duties and traceability of changes		

- **SIEM Solution (Block Chain)**

Criteria	Bidder's Confirmation Yes/No	Bidder's Comments
General Requirements and Architecture		
The proposed solution should provide for a fully operational unified SOC The solution must support Log Collection, correlation and long term storage from below mentioned sources such as		
➤ End-user computing systems		
➤ Servers		
➤ Applications		
➤ Security system like Firewall , NAC, IDS/ IPS, SSL VPN , WAF, Load balance		
➤ Network Systems such as Router, Switches, Internet Gateway		
➤ Identity Systems such as Identity Management, Access Management Activity		
➤ Patching System		
➤ Vulnerability Management data		
➤ Database Activity Monitoring alerts		
Leverage connectors or build custom connectors to integrate assets onto the unified SOC solution.		
The solution must provide 'canned' out-of-the-box reports for specific compliance regulations (PCI, SOX, FISMA) and control frameworks including(NIST, COBIT, ISO).		
The SOC solution must provide central management of all components and administrative functions from a single web-based user interface for SIEM,		
SOC solution should support NBAD for future which can capture layer 7 traffic & bring the context by analyzing the application payload.		
The solution must roll up all events and network flows into single offenses.		
Solution must Maintain a single unified up to date asset database that provides a complete view of an asset that is automatically registered into the database using data collected from logs, passive scanning, active scanning activities performed by the SOC platform.		
SOC solution should help in creating the context around the Vulnerability & asset information which can further create the priority as per asset & vulnerability record.		
SIEM solution should be able to correlate Events & Flows together to generate incidents.		
SIEM should utilize Machine learning algorithms as well as rules on logs and network flows collected to provide user behavior analytics		
All incidents should be provided with a categorization and magnitude rating to help prioritize the incidents		
Global Threat feed should be provided in the SOC platform		

SIEM solution must have provide out of box apps supporting security system from different vendors like CISCO, PaloAlto, Checkpoint, etc.		
The solution should support deploying each log source mapped to use cases based on some standard framework e.g. ATT &CK framework categories from MITRE Corp.		
The solution proposed should be in the Gartner's Magic Quadrant for SIEM as leader for the last consecutive 5 years		
The solution must fully support multi-tenant and multi-tenancy features, like full segregation of data and administration, overlapping IP addresses and domains, etc. without adding new hardware components.		
The solution must fully support multi-tenant and multi-tenancy features, like full segregation of data and administration, overlapping IP addresses and domains, etc. without adding new hardware components.		
Log Analysis and Management		
The solution should provide for 2500 EPS average during peak time. The sizing of the underlying infrastructure should be based on complete requirement.		
Short term on board external storage should be provisioned for 2500 average during peak time for 3 months.		
The solution need to collect logs from at least 1 location		
SIEM solution should be designed to provide High Availability across all components within the system e.g. log correlation, management console etc.		
The solution must support auto discovery of assets that are being protected or monitored and make them available in an asset database within the system. The solution should be sized for multiple devices		
Solution must support industry log collection methods (syslog, WMI, JDBC, SNMP, Opsec etc.). Solution can read and interpret events from more than 300 log sources.		
The solution should support log collection from Windows system in both agent based/agentless modes		
Solution must have a log collection and archive architecture that supports both short-term (online) and long-term (offline) event storage		
Solution must provide the ability to distribute both event collection, processing and storage across the entire SIEM deployment		
SIEM solution collector which is used should be able to send data real-time towards to correlation unit.		
The solution must normalize common event fields (i.e. usernames, IP addresses, hostnames, and log source device, etc.) from disparate devices across a multi-vendor network		
The solution must provide the ability to normalize and aggregate event fields that are not represented by the out-of-the-box normalized fields		
The SIEM must provide searching & querying of underlying data within the SIEM system		
USER Behavior Analytics		
The solution should base lining user activity and delivers insights within 24 hours		
The solution should provide security analysts the capability to rapidly respond to insider threats by automatically measuring and ordering the risk associated with suspicious users		
Should utilize machine learning and user behavior analytics to detect anomalous behavior		

The solution should also show information on an individual basis, such as the highest risk users, recent offenses and risk categories.		
The solution should also show information on an individual basis, such as the highest risk users, recent offenses and risk categories.		
Separate DBA dashboard should be provided that that aggregates user data to show information such as the number of users being monitored, high risk users etc.		
Analysts should be able to drill down into log and flow data based on which the solution would have identified and notified of risky behavior		
Threat Intelligence		
The solution should be provided with a default global threat intelligence feed which would be used by the system to correlate against logs flows seen by the system on real time basis to raise alerts		
Additional 3rd party Threat Intelligence feeds should be possible to be integrated into the solution		
Should support standards like STIXIT AXii, etc.		

• **Network Forensic Analyzer (Cyber Security and Forensics)**

Criteria	Bidder's Confirmation Yes / No	Bidder's Comments
Solution should support High Performance Network flow processing (40 flow processing engines @ up to 1.4 GHZ)		
It should support packet classification in hardware for up to 64,000 rules		
It should support state full flow analysis and action processing for upto 8 million flow in hardware		
It should support flexible interface of 6 x 1 GBE		
It should support High-speed PCIe Gen3 interface with 8 lanes offering up to 40Gb/s of bandwidth between the NFE and the host x86 system		
It should support dynamic load balancing to parallelize application performance		
It should support Full programming flexibility to support network or protocol changes		
It should support APIs in C language		
Solution should provide a Protocol Library for the framework to extract the various protocol fields of Layer 2 to Layer 5 of TCP/IP protocol stack from the packet		
Solution should provide a Flow Library Framework to analyze the VoIP traffic, monitoring network bandwidth and depicts TCP Handshake process.		
Solution should provide a Deep Packet Inspection Library enables the user to analyze the network traffic at flow level.		
Solution should provide an Application Service Detection Library This module identify more than 100 Services such as HTTP, Facebook and Twitter etc. To create snort like rules to identify the particular traffic based on various combinations of source IP, destination IP, source port, destination port, protocol. Reporting the alerts via email.		

Solution should provide a Geo IP Library Provides the framework to map the IP address from the analysed traffic such as SMTP or POP3 to nearest possible latitude and longitude coordinates.		
Solution should provide a Virus Signature Detection Library Provides the framework for the following, to identify malware content across packets, to configure the rules to identify the user defined patterns inside packets and it report the alerts to the user through email		

• **Minimum requirement For Training**

Sr No.	Item	Specification
1.	Overall Program	Shall offer program courses on futuristic technologies and domains, in the field of Computer Science which are in-demand and industry aligned. The applying OEM should have 10+ years of experience at multiple university's across Indian and other countries.
		The applying OEM should be both the Software & Hardware (Server) service provider.
		These program courses shall be offered to students (from both Engineering and Non-Engineering domains) in varying formats and duration in the field of AI/ML, Cyber Security, Data Science, Internet of Things and Block Chain. (Certificate – on a mixed mode of online and face-to-face learning). The labs for each of these specialization areas and courses should be on Open-Source Software.
2.	Support for Board of Studies & Curriculum Workshop	Subject matter experts to be made available to present / discuss / design industry aligned programs and curriculum. The Curriculum / Syllabus should be well researched, up-to-date and contemporary, as per Technology / Business Domain requirements & emerging trends.
		All the Programs offered should be outcome based and shall be extremely interactive, much similar to the real-life scenario where a professional is judged against some set parameters at every stage. This shall help in honing up skills and communication in a systematic manner and is a recognition engine for meritocracy in the real world.
3.	Global Recognition for the Certificate / Digital Badge for Students:	The coveted Digital Badge directly issued by the industry partner and recognized globally shall be awarded to all students passing the program. The students shall be able to display/showcase the Digital badge on their email closing information, Social media platforms and Electronic resume.
4.	Train the Teachers' program:	Train the Teachers' program conducted by industry subject matter experts (on each of the specialization subjects) for select faculty members, who will also be awarded certificates on successful completion of Train the Teacher's program, to ensure smooth transition, delivery and management to the new curriculum.
5.	Lab Guidance & Support:	Industry experts' guidance in setting up the required Labs.
6.	Learning through collaboration and competition on Technology Days:	Organize Industry Technology Days where students learn to collaborate and compete through Technical Poster Competitions, Hackathons, and industry aligned Projects. Provide an online platform support, which can be accessed by the participating students and faculty members, where Webinar sessions, online learning, discussion forums, are provided access to.
7.	Project Based Learning:	The focus on projects and applied learning shall be offered from the very beginning. The theory courses shall be augmented by adequate project and applied work, which will help the students apply the knowledge they gain in classroom.
8.	In-depth and applied courseware to be made available for participating students:	The applied courseware created for students by industry experts.
		The specialization areas which needs to be covered are; AI/ML, Data Science, Internet of Things, Cyber Security, BlockChain. These specialization courseware to be supported with Open Source Software in the labs.
		There must be at least a minimum of 6 courses aligned and made available for students for each of the above listed specialization areas.
9.	Vibrant Concurrency of Courseware:	The programs and courses offered shall be regularly reviewed and adjusted at the periodic intervals for their concurrency.
10.	Online & Printed Courseware availability:	The program courseware must be made available to participating students in online mode and a set of printed copies of the courseware made available for faculty reference.

		<p>The online platform must have the ability to accurately track how much of the course has been completed by the student.</p> <p>The online platform must produce a course report displaying the student's grade on each of the activities along with the date of completion.</p> <p>It must be able to support interactive self-assessment for each of the courses.</p> <p>Facilitate online Discussion Forum.</p> <p>It must support SCORM 2004/ SCORM1.2.</p> <p>It must have the ability for online submission of Assignments by the students.</p> <p>Should support API's for external Virtual class and Virtual labs.</p> <p>Must have the ability to track the course completion by the student.</p>
11.	Optional provision to deliver courseware training directly to students:	Provision to provide face-to-face or online virtual training to students by industry subject matter experts.
12.	Online / Offline Discussions Forums:	Faculty and student learning shall be further enhanced by providing adequately structured discussion forums against relevant topics / subjects.
13.	SME Visits (Seminars & Webinars) & Interaction:	<p>Visits by industry professional / subject matter experts, facilitating experiential learning.</p> <p>There will be adequate interaction planned during these visits so that it becomes an interactive learning experience for the students.</p> <p>Online / face-to-face sessions shall be offered through industry guest lectures.</p>
14.	Online Learning and Industry Collaboration Ecosystem Platform:	<p>Make available an online learning and industry collaboration ecosystem platform for the Institution benefiting the participating faculties & students enrolled into the program.</p> <p>This platform shall facilitate students to interact with industry subject matter experts to acquire applied knowledge and skills.</p>
15.	Students Monitoring & Tracking System:	<p>An online ecosystem system portal platform shall track the work the student performs and provides access to student courseware and industry interactions.</p> <p>The platform must include project scope - which is industry and technology aligned.</p>
16.	Project Team:	<p>Making provision and available a Project Manager, and Delivery Team, which will ensure the smooth delivery of the program throughout the lifecycle of the student through the program.</p> <p>The OEM should have trained on these courses in at least 2 Skills initiative from Central & State Govt's levels</p> <p>The OEM should have trained on these courses in at least 2 Public Universities</p> <p>The OEM should have trained on these courses in at least 3 international Universities</p> <p>Should have minimum 5 QP certified by NASSCOM Sector skill council as specified by NSDC under Ministry of Skill Govt. of India</p> <p>The courses offered should be certified by IT Sector Skill Council NASSCOM</p> <p>Courses and Course Material should be developed and delivered by Globally renowned Organizations in the IT field</p>
17.	Deliverables of the Project and Project Management Team	<p>The Deliverables of the Project should be:</p> <ul style="list-style-type: none"> • At Site Training on 10 Faculty & Virtual Training for 10 Faculty on the Subject Modules. • Students should be able to access the Virtual direct training sessions and program access through virtual collaborative platform 24x7 as provided by the OEM • Globally accepted certification by way of Digital Badges for

		<p>the selected streams to be provided by the OEM</p> <ul style="list-style-type: none"> • The OEM should also provide courseware access, virtual classrooms, learning management systems, & industry interactions, as a part of its delivery • Student & Faculty Kits to be provided to all participating students and faculty • Industry aligned projects - scenarios, use cases, milestone management, industry interactions, to be provided to all Participating Students <p>Deliverables of the Project Management Team:</p> <ul style="list-style-type: none"> • "Project Mangers from OEM/ OEM Authorized Partners to Manage the Delivery, Execution & Relationship of the program at the Hub & Spokes • Technology Day Event to be conducted at 5 locations • OEM SME sessions to be conducted at 5 locations - 4 times a year • OEM Event's - Poster Competition, Hackathon, Project competition to be conducted for participating student and faculty once (1) a year
18.	Industry Event	Industry Event at 5 locations Cost per Event
19.	Industry Academia Collaboration	<p>Industry Academia Collaboration Platform access Including</p> <ul style="list-style-type: none"> • courseware access, • virtual classrooms, • learning management systems, & industry interactions <p>for the domains mentioned below</p> <ul style="list-style-type: none"> • Data Analytics • Cyber Security • Block Chain • Artificial Intelligence & Machine Learning • Internet of Things
20.	Industry Projects	<p>Industry Projects scenarios ,use cases milestone management, industry interactions one per student on:</p> <ul style="list-style-type: none"> • Data Analytics • Cyber Security • Block Chain • Artificial Intelligence & Machine Learning • Internet of Things
21.	Subject Matter Expert sessions	<p>Subject Matter Expert sessions - 4 times a year on the following domains</p> <ul style="list-style-type: none"> • Data Analytics • Cyber Security • Block Chain • Artificial Intelligence & Machine Learning • Internet of Things

Technical Qualification

S.no	Criteria	Score
1	CMMi (Capability Maturity Model integration) level. The OEM must be: ISO 9001 ISO 9001 - 2015 CMMi Level 3 - ISO 9001	1 3 5
2	Financial Capability of the bidder or the group company (Average annual turnover should be # crores for last 3 years) Less than INR 5 Crore Less than INR 10 Crore Greater than INR 50 Crores	1 3 5
3	Number of installations in similar such Government and Private Universities /Institutes. Less than 2 Less than 5 More than 5	1 3 5
4	Manufacturers Authorization Form (MAF) certificate from OEM enclosed. bidder to provide the MAF for all equipment's bidder is bidding Software Training Hardware	5
5	The Tender applicant must be the OEM / authorized partner of OEM for Supplying Hardware, required Software and the education services from the same OEM	10
6	The OEM should have trained on these courses in at least 2 Skills initiative from Central & State Govt.'s levels Less than 2 More than 2	1 5
7	The OEM authorized partner should have prior experience of successfully setting up and running operations of COEs with a minimum of 4 State Governments & 1 Central Government Skill Initiative. Greater than 10 Between 5 to 10 Less than 5	5 3 2
8	The OEM should have trained on these courses in at least 3 international Universities. This is to ensure that the training content is globally recognized and that the same will help in making students globally employable	10
9	Technically eligible bidder has to give a technical presentation of the proposed solution with training component to the University committee. A detailed presentation by the OEM/Authorized partner of OEM on the Course material and delivery methodology	10
10	OEM Holding valid office in India with the Registration certificate (ANNEXURE -III) PAN Card, TAN Certificate and GST Certificate	5

11	OEM Authorised Execution Partner Holding valid office at Gujarat with the Registration certificate (ANNEXURE -III) PAN Card, TAN Certificate and GST Certificate The Execution Partner has to hold an office in Gujarat	2 3
12	Bidder has to specify list of clients where the bidder/OEM has been working with. Please share a few client testimonials.	2
13	Should have minimum 5 QP (Qualification Packs) certified by NASSCOM Sector skill council as specified by NSDC under Ministry of Skill Govt. of India	10
14	The courses offered should be certified by IT Sector Skill Council NASSCOM	10
15	Courses and Course Material should be developed and delivered by Globally renowned Organizations in the IT field	10

Total Score out of 100.

EMD Amount Rs.3 Lakh Demand Draft in the favour of State Nodal Office, RUSA	Demand Draft No. Date:	
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IMP:

A	Whether the copy of financial statement like Profit and Loss Account, Balance Sheet etc in support of financial turnover.	
B	Bidder has to provide both the analytics & security software along with the training components as per the specifications from the same OEM.	
C	One project coordinator to be deployed onsite for the project period from the bidder.	

Financial Bid

Part A

Sr. no			Qty	Price (INR)
1	Server Specification - Power 9 AC 922 server with NVIDIA 4 GPU	<ul style="list-style-type: none"> Server 1: 8335 Model GTH with NVIDIA Tesla V100 GPU with NVLink Air-Cooled (32 GB) 2 x 1TB 7.2k RPM 5xx SATA SFF-4 Disk Drive 256 GB DDR4 Memory 2 x PCIe2 LP 4-Port (10Gb+1GbE) SR+RJ45 Adapter 2 x 16-core 2.7 GHz (3.3 GHz Turbo) POWER9 Processor 2 x 1TB 7.2k RPM 5xx SATA SFF-4 Disk Drive 2 x High Function 9xC19 PDU: Switched, Monitoring Red Hat Enterprise Linux 7 for Power (le) Per Svr up to 2 Skts IPL 15L w 3yr STD Sub OEM Support Line for Linux on Power - 3 Year 3 years Support Line for Linux 9x5 per Server PowerAI V1.5 	1 No.	
2	Intel Servers	<ul style="list-style-type: none"> Intel Processor Cores - 6 RAM: 128 GB Hard Disk: 2 TB Red Hat Enterprise Linux 7 Monitor: 24-inch 1200x1024 screen resolution 16-bit color (recommended 256-bit color) Graphics Card: 2 GB 3 Years warranty 	1 No.	
Total Amount A (In Rs.) (With out Taxes / Before Taxes)				
Taxes Amount (In Rs.)				
Total Amount A (In Rs.) (With Taxes)				

Part B

Sr. No	Description	Price (INR)
1.	Analytics software A) Prescriptive tool -20 concurrent users Maintenance & support for I st year Maintenance & support for 2nd Year Maintenance & support for 3rd Year	
	B) Predictive tool - 20 concurrent users Maintenance & support for Ist year Maintenance & support for 2nd Year Maintenance & support for 3rd Year	
2.	Cyber Security tools including A) Network Analyzer System for 20 concurrent users Maintenance & support for I st year Maintenance & support for 2nd Year Maintenance & support for 3rd Year	
	B) SIEM software for 20 concurrent users Maintenance & support for Ist year Maintenance & support for 2nd Year Maintenance & support for 3rd Year	
	C) SOC Software for 20 concurrent users Maintenance & support for I st year Maintenance & support for 2nd Year Maintenance & support for 3rd Year	
3.	Installation and training of the Analytics & Cyber Security software to be completed within four weeks(25 faculty for Analytics, Block Chain, AIML, Cyber Security and IoT)	

4.	Annual Maintenance Contract for High performance computer where the software has to be installed	
5.	Certification program for students online for 450 hours with 8 subjects per technology area (listed below); -Data Analytics -Cyber Security -Block Chain -Artificial Intelligence & Machine Learning -Internet of Things (Cost per student to be quoted)	
6.	On Premises Train the Teacher to Institute faculty at 5 locations (Cost Total 100 Faculty/ Teachers)	
7.	Train the Teacher to Institute faculty (Virtual on line sessions) 24X7 (Cost Total 100 Faculty/ Teachers)	
8.	Direct Learning from Subject Matter Expert by Students through a virtual collaborative platform (Cost per session to be quoted)	
9.	Globally Accepted Digital Badges Per Domain <ul style="list-style-type: none"> • Data Analytics • Cyber Security • Block Chain • Artificial Intelligence & Machine Learning • Internet of Things (IoT) price per badge to be mentioned	
10.	Student & Faculty kits per domain <ul style="list-style-type: none"> • Data Analytics • Cyber Security • Block Chain • Artificial Intelligence & Machine Learning • Internet of Things (IoT) (Cost per student to be quoted)	
11.	Project Management Project Mangers from OEM to Manage the Delivery, Execution & Relationship of the program at the Hub & Spokes Institutes	
12.	Total Amount B (In Rs.) (With out Taxes / Before Taxes)	
13.	Taxes Amount (In Rs.)	
14.	Total Amount B (In Rs.) (With Taxes)	
15.	Total Amount (A + B) (In Rs.) (With out Taxes / Before Taxes)	
16.	Taxes Amount (In Rs.)	
17.	Total Amount (A+ B) (In Rs.) (With Taxes)	