



**Expression OF INTEREST**  
**Establishment of Railway Engineering, Technologies & Skill**  
**School (NURETTS)**  
**NUTECH /SCM/NURETSS/PSDP / 24-25 TD 334**

**NATIONAL UNIVERSITY OF TECHNOLOGY**



# NUTECH

National University of Technology Islamabad

## Request for EXPRESSION OF INTEREST

**Project:** Establishment of NUTECH Railway Engineering, Technologies and Skills School (NURETSS) at National University of Technology (NUTECH) – Part - 1

**Assignment Title:** Hiring of firm for Feasibility Study of Advanced Railway Technologies Innovation Centre (ARTIC)

**National University of Technology (NUTECH) Islamabad** invites Expressions of Interest from qualified consultants to conduct a comprehensive feasibility study for the establishment of the Advanced Railway Technologies Innovation Centre (ARTIC) under the NUTECH Railway Engineering, Technologies and Skills School (NURETSS). This initiative aims to support Pakistan Railways and allied industries through high-end education, research, development and innovation.

NUTECH plans to establish ARTIC, focusing on high-speed rail (HSR) technologies based on R&D and human resource development.

### SHORTLISTING CRITERIA

- A minimum of ten (10) years of overall experience, with five (5) years in conducting academic and techno-economic studies.
- Valid registration with PEC, PCATP, SECP and NTN.
- Proven expertise in statistical and research methodologies relevant to the TORs.
- Experience in preparing concise and policy-relevant reports.
- Profile of firm and relevant academic research assignments conducted in the last five years.
- Preference will be given to the firm which have/had joint venture (JV) with relevant international partners on similar projects. **Note: Total time allocated for conducting the assignment is 90 days starting from date of signing agreement.**

### DELIVERABLES

- Inception Report within 15 days of contract award.
- Draft Feasibility Report within 75 days of contract signing.
- Final Comprehensive Report within 90 days of contract signing, covering following:
  - Technical Viability & Sustainability Report.
  - Business Plan for ARTIC.
  - Recommendations on HR development and research output.

### Assignment Output

#### Data Collection & Analysis

Comprehensive data collection & analysis from stakeholders

#### Feasibility Study Report

Evaluation of ARTIC's efficiency, relevance & sustainability

#### Business Plan for ARTIC

Development of a comprehensive business plan for ARTIC

#### Draft & Final Reports

Submission of draft & final reports within 75 & 90 days, respectively

**EXPRESSIONS OF INTEREST** must be delivered clearly marked as "Expression of Interest for " Feasibility Study for

ARTIC (Advance Railway Technologies Innovation Centre) – NURETSS" to the address: Registrar Office, National University of Technology (NUTECH) Sector: I-12, Main IJP Road, Islamabad or electronically at [registrar.office@nutech.edu.pk](mailto:registrar.office@nutech.edu.pk) latest by 1100 hours, by **October 21 2024**.

Detail ToRs / tender documents is available on payment Rs. 3500 /.

1. Bidders will be required to submit **Bank Draft/CDR/BC/PO/SDR** equal to **3%** of quoted value as Bid Bond in favor of National University of Technology (NUTECH).
2. Detail of bids and submission of tender is provided below: -
3. Tender will be processed on **“Two Stage Method”** “<https://nutech.edu.pk/downloads/procurement/scm> tenders or purchase from NUTECH SCM Office

Ser	Description	Bank Account Details	Processing Fee	Submission	Tender Opening	Completion Days
a.	NUTECH /SCM/NURETSS/PSDP / 24-25 TD 334	NBP, Development Project Security, AC # 0341-00316702674-7	Rs 3,500/-	21 Oct-2024 1100 hrs on	21 Oct 2024 1130 hrs on	19 days

(Tender fee shape of CDR/BC/PO/SDR etc. will not be acceptable. Only deposit receipt shall be considered)  
in

Note: -

Please attach bank receipt with technical offer. Offers will not be entertained without payment of processing fee.

**No extension in deadline will be entertained.**

## Compliance – Check List

Offer must be quoted and arranged in accordance with below mentioned sequence.

Non-compliance & non-provision of following documents may lead to disqualification.

Sr.	Required Particulars	Documents Attached	
		Yes / No	Page #
1.	Fee Original Receipt (Rs 3,500/-)		
2.	Stage- I Technical		
3.	NTN/GST Registration	NO	
4.	Copy of Earnest Money (prices hidden)		
5.	Non-Blacklisting Certificate		
6.	Firm"s Complete details (address, contacts & email)		

**NATIONAL UNIVERSITY OF TECHNOLOGY**  
**SUPPLY CHAIN MANAGEMENT**  
**Expression OF INTEREST**

**Tender submission time: 1100 hrs on 21 Oct 2024**

1. NUTECH desires to procure the list of item(s) / Store(s) on **FOR Basis**. Interested bidders are requested to send their bids through courier or deliver at NUTECH under "Two Stage Bidding Procedure", marked clearly as marked as Stage –I (Technical Bid) to the undersigned, latest by or before above mentioned due date.
2. **Conditions Governing Contracts.** The contract made as result of this IT will be in accordance with the draft contract published on NUTECH University website and other special conditions (Mentioned in this document) that may be added to given contract for the supply of equipment.
3. **Delivery of Tender.** The offer is to be submitted as under: -
  - a. **Stage-I.** should contain only  
 (supported with relevant technical literature / details / catalogues etc) and receipt of tender processing fee. Copy of bid bond WITHOUT MENTIONING PRICE should be attached with technical offer.  

Only relevant technical details  
 i.e literature/brochures) without mentioning the financial aspect of the offer should be enclosed in an envelope. In technical proposal, all items must have the brand names, model number, manufacturer's name, country of origin, manufacturer's warranty including parts with complete specs and brochures. Re-conditioned and re-furbished equipment shall not be acceptable. Following information will be clearly marked on the envelope:
  - b. The tender duly sealed will be addressed to the following: -  
Registrar NATIONAL UNIVERSITY OF TECHNOLOGY (NUTECH) IJ P ROAD, I-12,  
ISLAMABAD  
Tel: 0092-51-5476768, Ext: 123
4. **Date and Time for Receipt of Expression OF INTEREST.** Sealed bids with detailed specifications should reach SCM office latest by **1100 hours on 21 Oct**

**2024.** Delay occurring in post shall not be accepted. Tenders received after the appointed / fixed time will NOT be entertained. The appointed time will, however, fall on next working day in case of closed / forced holiday.

5. **Expression OF INTEREST.** The offers shall be opened **30 minutes** after submission time.

Commercial offers will be opened at later stage if Technical Offer is found acceptable on examination by technical authorities. Date and time for opening of commercial offer shall intimate later. Only legitimate / registered representatives of firm will be allowed to attend tender opening.

6. **Validity of Offer.** The validity period of quotations must be indicated and should be **90 days** from the date of opening of financial offer.

7. **Withdrawal of offer** If the firm withdraws its offer within validity period the competent authority may place such firm under embargo for a period, which may be extended up to one year. Moreover, the Earnest Money of the firm will be confiscated.

8. **Documents.** Following information / copy of documents must be provided / attached with offer:-

- a. A copy of letter showing firm"s financial capability.
- b. NTN/GST number be mentioned on the offer and copy of registration Certificate issued by Sales Tax Department, attached.
- c. ATTACH ONLY RELEVANT DOCUMENTS.

9. **Earnest Money / Bid Bond.** Commercial Offer must be accompanied with a Bid Bond (CDR/Pay Order/Bank Draft) in agreement of faithful compliance of the conditions of Contract. This amount will be equivalent to 3% of the total quoted value. The Bid Bond amount submitted by the successful bidder will however be refunded on effective termination of Contract. (The Bid Bond will be forfeited in case of default by the bidder from his commitments made through his offer). Submission of Bid Bond is mandatory; otherwise your offer will be rejected. Bid Bond will be used as performance guarantee till the delivery of stores, otherwise separate performance guarantee valued at 3 % of contract will be submitted by successful firm till stores are delivered and inspected.

10. **Return of Earnest Money/Bid Bond.**

- a. Bid Bond to the unsuccessful bidders will be returned on finalization of the lowest evaluated bidder.
- b. Bid Bond of the successful bidder/bidders will be retained as performance bond until the completion of warranty/ guarantee period

**11. Terms of Payment**

No mobilization or advance payment will be made to the consultant. The payment will be made as per schedule given below:

- (1) Upon Submission of Inception Report 10%
- (2) Upon submission of draft report 30%
- (3) Upon submission of final report 30%
- (4) Upon approval of final report 30%

(Applicable government taxes will be deducted at sources at the time of payment.

Payment will be made in PKR)

**13. Taxes/ Duties/ Custom clearance** All taxes /duties /import Licenses Fee as applicable under government laws in Pakistan as well as country of supplier shall be on Seller (**in FOR Case**). NUTECH will provide applicable exemption certificates and documents **(In FOB Cases only)**.

**14. Insurance:** - Insurance will be Seller"s Responsibility (**in FOR Cases**) and NUTECH"s responsibility through NICL (**in FOB Cases**).

**15. Delivery Schedule.** Store will be delivered within **90 Days-from** contract signing date.

**16. Force Majeure.** If non-compliance with the period of delivery or services can be proved to be due to Force Majeure, such as but not limited to mobilization, war, riot, strike, lockout, pandemics/epidemics or the occurrence of unforeseen events, the period shall be reasonably extended.

**19. Subletting** Suppliers are not allowed to sublet wholly or part of the contract to any other firm /company without prior permission by NUTECH. Firm found in breach of the clause will be dealt with as per purchaser"s right and discretion.

**20. Arbitration.** Will be as under: -

"All Claims, disputes, controversies, differences arising out of or in connection with this contract, including any question regarding its existence, validity, interpretation performance, breach or termination, shall be referred to and shall finally be solved by binding arbitration. An Arbitration Committee Shall be constituted comprising Rector NUTECH and two Arbitration to be nominated on mutual agreement by each party. The venue of the Arbitration shall be the place of issuance of this contract or as Rector NUTECH may determine. In case of any difference, the clauses of Arbitration Act 1940, Rules and Regulation made thereof for time being enforce shall prevail. The award shall be final and binding on both parties.

- a. Provided that written record of any such arbitration and its award shall be arranged properly.  
An award of such arbitration may be confirmed in a court of competent jurisdiction at Islamabad.
- b. Provided further that in case of any other question /dispute not covered under this clause, the decision of Rector NUTECH shall be final.”

21. **Redress Of Grievance.** In case of dispute, case shall be reviewed by NUTECH Redress of grievance committee and decision of NUTECH shall be final and binding on both parties.

22. **Inspection /Testing of Store:** Inspection testing will be carried out at NUTECH by the concerned inspection team as detailed by the respective department in accordance with the laid down Acceptance Criteria. (Acceptance Test Procedure (ATPs)/Drawing /Test standard and specification). The supplier will provide ATPs with technical offer. Mutually agreed/approved ATPs will form part of contract to govern the inspection of store subsequently.

29. **General Instructions:** Following must be noted:-

- a. The firm should provide point to point acceptance of each clause of IT and special instructions attached with IT.
- b. Firm will render a certificate with technical offer that firm is neither defaulter nor blacklisted by any Government / semi Government organization directly or indirectly. (On Judicial Paper)
- c. Rates should be quoted on Free Delivery basis at NUTECH Islamabad.
- d. The stipulated delivery period should be strictly adhered to. Any anticipated delay that is beyond the control of Seller will be informed (in writing) well in advance of the expiry of the due date of the activity along with reasons thereof, requesting for the grant of extension in delivery period. If the Seller fails to do so, or the Buyer is not convinced with the rationale provided by the Seller, Liquidated Damages up to/at 2% per month or part thereof, will be imposed. However, the maximum limit of the Liquidated Damages will not exceed 10% of the delayed store value.
- e. If even after applicability of 10% LD, the Seller fails to deliver the required stores, the Buyer will be at liberty to Cancel the contract, and /or procure the



of stores from an alternate source, on the Seller's "Risk & Cost/Expense". In that case, the Seller will be bound to make payment to the new source through NUTECH. The purchaser's decision under this clause shall NOT be subjected to arbitration.

- f. NUTECH reserves the right to cancel the Contract without assigning any reason whatsoever during its currency / execution / after placement, if the firm is found to be involved in any dubious activity, litigation, lacking to meet contractual obligations with the purchaser or is blacklisted with any other Public procurement agency. No claims / loss /damage of whatsoever nature shall be entertained and NUTECH's decision in this regard will be final / binding on the Seller.
- g. An appropriate amount may be paid for mobilization against Bank Guarantee/CDR/Demand Draft/Pay Order.
- h. Firms with previous pending/outstanding projects/business and unsatisfactory performance with NUTECH may not be considered for award of any further business.
- i. Lowest evaluated bidders must send their authorized representatives (with authorization letter) for signing of the contract within three days of sharing of the draft contract.
- j. For technical opening firm will send a representative who has knowledge about the quoted items otherwise representative will not be allowed to sit in tender opening.
- k. **Stamp duty for Contract will be taken as per Section 22-A of Stamp Act 1899 Pakistan.**

Deputy Director  
Supply Chain Management Office

## **Project Detail**

**Project:** Establishment of NUTECH Railway Engineering, Technologies and Skills School (NURETSS) at National University of Technology (NUTECH) – Part - 1

National University of Technology (NUTECH) Islamabad invites Expressions of Interest from qualified consultants to conduct a comprehensive feasibility study for the establishment of the Advanced Railway Technologies Innovation Centre (ARTIC) under the NUTECH Railway Engineering, Technologies and Skills School (NURETSS). This initiative aims to support Pakistan Railways and allied industries through high-end education, research, development and innovation. NUTECH plans to establish ARTIC, focusing on high-speed rail (HSR) technologies based on R&D and human resource development.

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### **Shortlisting Criteria**

- A minimum of ten (10) years of overall experience, with five (5) years in conducting academic and techno-economic studies.
- Valid registration with PEC, PCATP, SECP and NTN.
- Proven expertise in statistical and research methodologies relevant to the TORs.
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### **Deliverables**

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- Draft Feasibility Report within 75 days of contract signing.
- Final Comprehensive Report within 90 days of contract signing, covering following:
  - Technical Viability & Sustainability Report
  - Business For ARTIC

### **Assignment Output**

**Data Collection & Analysis** Comprehensive data collection & analysis from stakeholders

**Feasibility Study Report** Evaluation of ARTIC's efficiency, relevance & sustainability

**Business Plan for ARTIC** Development of a comprehensive business plan for ARTIC

**Draft & Final Reports** Submission of draft & final reports within 75 & 90 days, respectively

**EXPRESSIONS OF INTEREST** must be delivered clearly marked as “Expression of Interest for “Feasibility Study for ARTIC (Advance Railway Technologies Innovation Centre) – NURETSS” to the address: Registrar Office, National University of Technology (NUTECH) Sector: I-12, Main IJP Road, Islamabad or electronically at **registrar.office@nutech.edu.pk** latest by 1100 hours, by **October 21** 2024.

Detail ToRs / tender documents is available on payment Rs. 3500 /.

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National University of Technology, Islamabad

**Feasibility Study for Establishment of  
Advance Railway Technologies Innovation Centre (ARTIC)  
Under NUTECH Railway Engineering, Technologies and Skills School  
(NURETSS)**

1. **Scope of Feasibility Study.** The consultant is required to conduct feasibility study, ensuring that the work complements the concept and design of ARTIC by the other experts in the development of the proposal. The consultant is expected to coordinate with and get technical and professional inputs from related international and national consultants, PR, MoR, national universities offering similar academic / R&D services, relevant industry and stakeholders as deem relevant. On the basis of information and data collected, consultation sessions will be organized with above mentioned relevant stake holders. The record of discussion (RoD) of consultation session will be made part of feasibility study. The consultation will liaise with the relevant professionals, academia and industry to obtain their valuable inputs for the feasibility study. The study will cover all important aspects as part of its scope. The scope will entail need assessment, impact analysis, infrastructure requirements to achieve desired objectives. The scope will ascertain sustainability of ARTIC by exploring return on investments (RoI) viability in terms of intellectually academic and skills systems etc. The study will have the scope to ascertain financial and economic viability of ARTIC project including development plan of project.

2. **Term of Reference (ToRs)**

- a. To highlight the current status of Pakistan Railway (PR) from an operational, technical, financial and other related perspectives by analyzing the various factors responsible for affecting the performance of PR both at the local and global level.
- b. Breakdown of Pakistan Railways (PR) Human Resources (HR) of various categories; management, engineers, technologists, support staff etc. Forecasting current and future 10-15 years technical and management HR requirements of PR and allied industries particularly with reference to future ML-1, 2 and 3 projects.
- c. A comparative study with regional / neighboring countries who are generating revenues and providing cost effective services to the public by utilizing latest technology.
- d. Readiness for transforming PR into technologically advanced enterprise of 21<sup>st</sup> century and creating PR capacity in terms of HR, O&M technologies and required

skills for ML-1, 2 & 3 projects.

- e. Determine the number of established academics Engineering Technologies and Skills Institutions and R&D centres around the region / world.
- f. Identify the impact of absence of academic / R&D and similar institutions on Railway, allied automobile industry and socioeconomic development.
- g. Conduct a need-benefit analysis for establishing ARTIC in Pakistan and role of other higher learning institutions, R&D organizations and concerned Industry.
- h. Identify processes to develop and implement laboratories of ARTIC in accordance with international standard ISO / IEC 17025 in order to recognize ARTIC globally as product certification / accreditation / testing centre of NURETSS.
- i. Possible collaboration of similar institutions between Academia. PR and allied industry at national / regional / world level.
- j. Business plan for sustainability of NURETSS and ARTIC. The consultancy firm shall be required to prepare and present different financing / investment options for the NURETSS / ARTIC. These options can include, but are not limited to investment based on grant from GoP etc. The consultancy firm shall recommend the most optimal method of financing and sustaining the NURETSS / ARTIC based on an implementable business model and supported by a detailed.
- k. In collaboration with the engineering team, design and prepare schematic drawings with technical specification of the required infrastructure with bill of quantities.
- l. Outline realistic time line for the proposed set of activities
- m. Identify the barriers and challenges - if any - that could determine the sustainability the project
- n. Identify and analyze any governance and capacity issues that will be critical during the implementation of the project as well as to ensure sustainability of the proje
- a. **Third Party International Evaluation of Feasibility Study.** Technical services of sister international ranked institutions, preferably having experience of conducting / supervision of similar study OR offering similar academics and R&D programs will be hired for evaluation of draft feasibility study and input before finalization of feasibility study.

### 3. **Feasibility Study Conduct Modality**

- a. Data Collection. Consultants also have to collect data from all relevant stakeholders in the ICT region i.e Universities, R&D Organizations of MoST Universities and department etc. for construction of ARTIC at ICT region in specific and generally for

overall all country with respect to HE research development for both universities and industry. Undertake the required studies on a random sample based on primary or secondary data for analysis to achieve the objectives of the study. The consultant will compile and analyze the data. The consulting firm is required to select sufficient sample required keeping in view the diversification in subject area, national/international distribution, national and international job market conditions and research courses, existing research support based infrastructure facilities in the country but not limited to following;

- (1) Collection of data from relevant stakeholder through desk review, interviews, focus group discussion, surveys/investigations and use of appropriate statistical tools to come up with realistic and applicable proposals and report.
  - (2) How effective, efficient, relevant and sustainable would be the construction of ARTIC at ICT its possible research labs, programs, infrastructure in light of demography and local research support resources.
  - (3) Relevance of construction of proposed center (ARTIC) to the job market of Islamabad Lahore and Karachi regions and overall HE research sector of Pakistan, current and future prospects.
  - (4) Analysis of exiting research programs and infrastructure of universities in the ICT territory and recommendations for provision of expert research based workforce locally to cater current and future needs of the country.
  - (5) Identify the research knowledge gap of existing potential researchers of the country from multiple disciplines.
  - (6) Identify the research programs and contents for existing and future technology research in railway sector of Pakistan keeping in view national and international railway industry, resources, etc.
  - (7) Propose a sustainable model for province wise development, expansion and future roll over plan of Higher Education research sector of Pakistan.
- b. **Business Plan for ARTIC.** The consultant will prepare comprehensive business plan of ARTIC in the light of prevalent best international practices of similar R&D institutions/ setups/ centres around the world. The plan most incorporates the identified needs of national and international industry in terms of the creation, development and commercialization of emerging railway technologies. The plan should ensure economic sustainability of the project through anticipated earnings from industry in the long term and in sustainable basis, business plan of the project must be an integral

part of the study by the consultant. All relevant data, graphs and pictures will be attached with the plan as part of the study.

- c. **Deliverables Under Contract.** The consultant will submit two (2) copy of Inception Report within 15 days from the award of the contract. The firm should also be bound to submit all data and information collected. The Client will submit its comments within 7 days on the inception report. The Consultant will incorporate these comments and will submit 10 copies of the final report after incorporating the comments of the client. After completing the techno-economic feasibility study, the firm should submit first draft of the report within 75 days from the date of signing agreement with HEC and present the results to selected audience. After completing the assignment within 90 days from the date of signing agreement with HEC, the consultant should present and submit a draft comprehensive report to the client for comments. This draft report should be fully supported by the data, tables, pictures and illustrations where necessary should include following aspects:
- (1) Business Plan for ARTIC at NURETSS
  - (2) Technical Viability & Sustainability of the project
  - (3) Forecasted HR development in next 5 years, Research output, industrial- academia revenue generation, industrial forecasted business revenue direct & indirect.
  - (4) Forecasted Railway HR, technology and Research deliverance commercialization to other countries in region & Golf countries.
- d. 4 copies of the final report will be required after incorporating the comments of the client. HEC will publish the final report for wider circulation. The final contents and graphics/illustrations must be in printable form. The deliverables will be property of the client and cannot be used without prior written permission of the client. The consultant will submit electronic copies of all the deliverable to the client along with above mentioned hard copies.
- e. **Suggested Mode of Payment.** No mobilization or advance payment will be made to the consultant. The payment will be made as per schedule given below:
- (5) Upon Submission of Inception Report 10%
  - (6) Upon submission of draft report 30%
  - (7) Upon submission of final report 30%
  - (8) Upon approval of final report 30%
- (Applicable government taxes will be deducted at sources at the time of payment)
- f. **Time Period for Assignment.** Total time allocated for conducting the assignment is

90 days starting from the date of signing agreement with HEC the issuance of award letter.

g. **Shortlisting Criteria.** Qualification & Experience: -

- (1) Ten (10) years overall experience with five (5) years relevant experience to conduct academic and techno-economic studies in public and/or private sector
- (2) Valid Registration with SECP & NTN /Income Tax Certificate.
- (3) Verifiable statistical and research expertise, as relevant to the TORs
- (4) Proof of experience of preparing quality reports which are concise and succinct to allow policy and technical decisions.
- (5) Profile of the firm and clients served in last five years in relevant academic research assignments of similar nature.

**Note.** Any proposal received after the deadline for submission of proposal prescribed in these documents will be returned unopened to such consultant / firm. Delays in the mail or courier, delays of person in transit, or delivery of a proposal to the wrong office shall not be accepted as an excuse for failure to deliver a proposal at the proper place and time. It shall be the firm's responsibility to determine the manner in which timely delivery of his proposal will be accomplished either in person, by messenger or by mail.



