



# FOUNDATION FOR INNOVATION AND TECHNOLOGY TRANSFER

An Industry Interface Organization at IIT Delhi

Ref. FT/04/EOI/2022/1

Date: 6<sup>th</sup> December, 2022

## Invitation for Expression of Interest for Technology Transfer

**Objective:** Indian Institute of Technology, Delhi (IITD) invites Expressions of Interest (EOI) from competent industrial partners for commercialization of **DIGITAL MOSSO ERGOGRAPH** through the transfer of technology. The shortlisted bidder willing to take technology for commercial exploitation will have to enter into a Transfer of Technology(ToT) agreement with FITT-IIT Delhi as per the terms and conditions mentioned in the EOI.

**Introduction:** A digital, wireless, Graphical User Interface (GUI) enabled mechatronic device is developed which quantifies muscle fatigue and recovery of skeletal muscles of the forearm. This digital Mosso Ergograph is developed for the physiological measures of muscular contraction, fatigue, endurance, strength, and physical capacity or endurance. The device synchronizes the displacement data with the inbuilt Electromyography system and provides more insight into the relation between central and peripheral fatigue. This digital device is applicable for subjects of different limb lengths and different muscular strengths along with the adjustable position of hand rest.

### **Key Features:**

- **Digitization:** Digitizing the experimental setup of existing Mosso's Ergograph
- **Automatic and Deeper Analysis:** Including complex analysis of data with a more meaningful understanding of physiology
- **Interesting experiment experience for undergraduate medical students:** Converting all manual analysis to programming-based analysis to indulge the coding learning among Medical students.
- **Nervous component of fatigue:** Synchronizing the displacement data with an inbuilt EMG system will provide more insight into the relationship between central and peripheral fatigue
- **Laboratory experiment to Research Equipment:** Introducing the switching-based conversion between isotonic and isometric makes it suitable for research equipment status.

**Advantages:**

- Accurate data available which is transferrable for further analysis.
- The shelf life of data is infinite.
- It also measures the force applied by the muscles during Isotonic and Isometric Contractions

**IP Strength:** Patent filed in India

**Technology on offer includes:**

- Patents w.r.t Technology
- Knowhow of the technology
- Technical reports include block diagrams, circuit diagrams, embedded codes in soft form, and codes at the server end for implementation and communication with the device
- The developed software and Prototype

**Technology transfer terms:**

1. Non-exclusive and non-sublicensable
2. Term of ToT: 5 years renewable on mutual terms.
3. Technology Licensing Fee of INR 10 Lakhs and 3% royalty + Applicable Taxes
4. The Licensee's work performance will be monitored.
5. The Licensee should submit the audited quarterly statement of their sales/accounts.

**Note:**

1. The Company shall get the right to customize the device according to the industrial standards.
2. The Company shall also be responsible for taking approvals and certificates by different regulatory bodies in India and International agencies for suitability in use.
3. Further, the Company shall be responsible for Product Designing, sales, Marketing, and after-sales support. Each design variant developed by the Company shall be examined and approved by the Licensor.
4. The Company shall also be liable to pay royalty for each developed design variant in addition to transferred device design to the Licensor.
5. Detailed terms and conditions will be shared with the selected company.

**Investment from the company's side:**

1. Costs towards the Product Designing w.r.t Technology
2. Costs towards Technology Transfer

The Institute invites EOI in the format given below. The companies will be shortlisted based on the information provided in the given format and assessment by the ToT committee. Institute shall have no liability, in any manner in this regard, if it decides to terminate the process of shortlisting for any reason whatsoever.

**The following details should be submitted along with EOI**

<b>Part I- Company Details</b>		
1.	Name of Company/Industry:	
2.	Website:	
3.	Name of Contact Person:	
4.	Address:	
5.	Telephone:	
6.	Fax:	
7.	E-mail:	
8.	Year of incorporation:	
9.	Type of Organization i) Public sector/ Limited/Private Limited/ Partnership/ proprietary/ Society/Any other ii) Whether 'Foreign Equity Participation (Please give name of foreign equity participant and percentage	

	<p>thereof)</p> <p>iii) Names of Directors of Board/Proprietors</p> <p>iv) Name of address of NRI(s), if any</p>	
10.	Category of the firm: Large/Medium/Small scale unit:	
11.	Address of registered office:	
12.	<p>Number of offices with addresses (Excluding registered office:</p> <p>India</p> <p>Abroad</p>	
13.	Certificate of Registration as manufacturing unit:	
14.	Permanent Account Number:	
15.	GST No.:	

**Part II- Essential Requirements for technical bid**

1.	The Organization must be reputed firm/company/SME/Startup/R&D company incorporated in India with standing of at least 3 years
2.	The turnover is to be supported by financial statements of accounts/ Annual reports duly certified by a Chartered Accountant/Balance sheet of last 3 years/Income tax return for the last 3 years period.
3.	Company profile giving details of current activities and management/personnel structure including evidence of incorporation. The company should be registered and ISO 9001/or equivalent certified.
4.	Details of absorption of technology for a product/knowhow that has been taken up on production scale in the past may also be given
5.	<p>The manpower strength (Technical: Mechanical, Electrical, Electronics, Software &amp; Non-Technical etc.) at various levels to be furnished</p> <p>Technical:</p> <ul style="list-style-type: none"><li>a. B.E/B.Tech/M.Tech/Ph.D</li><li>b. Diploma</li><li>c. Skilled Technicians</li><li>d. Unskilled</li></ul> <p>Non-Technical:</p>
6.	The list of machine tools/equipments/software/facilities available related with work to be furnished.

7.	The in house technological expertise available to be furnished in the area of electronic devices.
8.	The list of equipments available for inspection and quality control to be furnished.
9.	The industry should have adequate space for undertaking this work. Available space-covered & open to be furnished.
10.	List of products/technologies worked with as regular activity in last three years. Give the list of products/technologies with general specifications and customers.
11.	List of PSUs/Govt. Customers-with contact details (Address, Telephone. No., Contact person)
12.	The details of sales, marketing and maintenance network to be furnished
13.	The list of technical collaborators for various ongoing products may be furnished
14.	The bidder shall provide details of the sub vendors in case they propose to employ for part work.
15.	Past association with IIT Delhi, if any

<b>PART III- Financial Bid</b>					
	1 <sup>st</sup> Year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year
Minimum guarantee on number of sales unit					
Expected price of unit					
Assured royalty (@3%)					

Declaration: I hereby declare that the above information is true to the best of my knowledge.

**Signature:**

**Place:**

**Date:**

**Note:**

1. Expression of Interest should be stamped and signed by the authorized signatory.
2. In case the company bidding for technology transfer, has or had any earlier association with IITD or FITT and/or association as sub contracted or partner in the project Digital Mosso Ergograph, such details should be made explicit in the EOI.

**How to Apply:** The interested parties have to submit the mentioned documents along with a non refundable demand draft of Rs.2000, in favor of FITT, IIT Delhi payable at New Delhi.

**Where to submit:** The application along with the demand draft can be submitted as a hard copy to Managing Director, Foundation of Innovation and Technology Transfer, Deans Complex, Indian Institute of Technology, Delhi, Hauz Khas, New Delhi-110016 and a soft copy to [mdfitt@gmail.com](mailto:mdfitt@gmail.com) within **two weeks** of this advertisement with envelope/subject marked as **Digital Mosso Ergograph**.

**Next steps:** All eligible parties would be called for a presentation to assess their strengths before deciding on the technology transfer partner.

**For any queries please write to** [mdfitt@gmail.com](mailto:mdfitt@gmail.com) Or Call 011-26597153