



**PSGTECHS COE INDUTECH**  
**PSG College of Technology,**  
**Peelamedu,**  
**COIMBATORE – 641 004.**



### **NOTICE INVITING TENDER**

A Centre of Excellence for Industrial Textiles (PSGTECHS COE INDUTECH) has been established by PSG Sons' & Charities under Mini Mission I of Technology Mission on Technical Textiles (TMTT), promoted by Office of the Textile Commissioner, Ministry of Textiles, Government of India. To augment facilities of Focus Incubation Centre, additional Machinery / Instruments / Equipments, short term sealed Tenders are invited from reputed manufacturers / suppliers of the same by The Director, PSGTECHS COE INDUTECH, Coimbatore.

- (1) Tender No. : *PSGTECHS COE INDUTECH /Tender FIC 5*  
(2) Approx. Estimated Value of Machinery / Equipment / Instrument : **Rs. 100/- Lakhs**  
(3) Date of Tender Document sales start : 08.12.2016 (10.00 AM onwards)  
(4) Date of Tender Document sales ends : 28.12.2016(04.00 P.M)  
(5) Last Date for Receipt of Tender : 29.12.2016 (04.00 P.M)  
(6) Date of Opening of Technical Bids : 30.12.2016 (10.00 A.M)

#### **Requirement:**

S. No.	Machine name	Tender fee in INR
1	Cutting Machine: a) Hammer mill b) Mixing machine	a) 2300.00 b) 2300.00
2	Respiratory converting machine: a) Cutting machine	a) 2300.00
3	Ultrasonic bonding and Finishing machine: a) Non woven Ultrasonic bonding & finishing machine for Home decorative. b) Weighing balance for finisher machine. c) Seam sealing machine.	a) 5750.00 b) 2300.00 c) 2300.00
4	Filter converting machine: a) Dryer machine	a) 5750.00
5	Yarn winding machine: a) Direct twisting machine for yarn winding	a) 5750.00
6	Inverted Microscope	a) 5750.00

The Tender Forms, Conditions of Contract including specifications and other information can be obtained from PSGTECHS COE INDUTECH, PSG College of Technology, Peelamedu, Coimbatore during working hours on any working day before the last date for sale of tender documents on payment of the above mentioned tender document cost, which is not refundable. The tender document can also be downloaded from PSG TECH Website: [www.psgtech.edu/coeindutech](http://www.psgtech.edu/coeindutech); Tender documents down loaded from website should be accompanied by demand draft of the above mentioned amount towards tender document fee drawn in favour of "The Director, COE INDUTECH, PSGCT", payable at Coimbatore, towards the cost of the tender document.

A pre-bid meeting will be held on **15.12.2016 at 10.00 AM** at Department of Textile Technology, PSG College of technology, Peelamedu, Coimbatore to clarify queries that may be raised at that stage on issues concerning "Instructions to Bidders" of the bidding document. The tender may be cancelled, withdrawn or postponed at any time by PSGTECHS COE INDUTECH, PSG TECH without assigning any reason.

**PSGTECHS COE INDUTECH, DEPARTMENT OF TEXTILE TECHNOLOGY, PSG TECH**

**PO Box No.:1611, Coimbatore - 641 004. Tamil Nadu**

**Phone: 0422 3933250 - 252 Fax: (0422) 2573833**

E-mail: [psgindutech@gapps.psgtech.ac.in](mailto:psgindutech@gapps.psgtech.ac.in)

Website: [www.psgtech.edu/coeindutech](http://www.psgtech.edu/coeindutech)

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**TENDER DOCUMENT  
FOR  
PROCUREMENT OF MACHINERY, EQUIPMENTS AND  
ACCESSORIES UNDER CENTRE OF EXCELLENCE (COE) and FOCUS INCUBATION CENTRE  
PSGTECHS COE INDUTECH**

Tender No.	:	PSGTECHS COE INDUTECH / FIC 5
Date	:	08.12.2016
Total Equipments	:	6 Nos.
Approximate Cost	:	Rs.100 Lakhs

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**Note:** Interpretation of any term / word / clause lies with PSGTECHS COE INDUTECH

## INTRODUCTION

PSG COLLEGE OF TECHNOLOGY, an institution of academic excellence, was founded in the year 1951 by PSG & Son's Charities Trust. The emphasis of the Trust started with vocational education & production oriented industrial training. In order to achieve these objectives, the founders wisely decided to locate the college in the same campus as the PSG Industrial Institute, which is a pioneer today in the manufacture of several engineering products like process and agricultural pumps, industrial motors and high quality specialty castings. Presently, PSG College of Technology boasts student strength of around 7000 along with 450 faculty members, with 130 doctoral qualifications.

The College has been in the vanguard of innovation in technical education, and over the years has taken giant strides and transformed itself into a prestigious centre for advanced studies in several faculties of Engineering, Technology, Applied Sciences, Management Studies and Computer Science and Applications. Recognizing the excellent infrastructure, faculty, progressive outlook, high academic standards and record performance, the University of Madras reposed abundant confidence in the capabilities of the College and PSG College of Technology was conferred Autonomous Status in the year 1978 to update its own programmes and curriculum, to devise and conduct examinations, and to evaluate students performance based on a system of continuous assessment. The academic programmes are designed and updated by a Board of Studies at the department level and Academic Council at the college level.

These statutory bodies are constituted as per the guidelines of the All India Council for Technical Education. A separate examination section headed by a Controller of Examinations conducts the examinations. PSG College of Technology an AICTE approved institution is affiliated to Anna University and ISO 9001 certified. Most of our programmes have been accredited by National Board of Accreditation (NBA). Sedulous progress has been the hallmark of PSG Tech. The growth and development of the college owed much to the untiring efforts of Dr. G. R. Damodaran, Founder Principal of PSG College of Technology. Presently Dr. R. Rudramoorthy is the Principal of the Institution.

The Textile department is well known for its extensive extension activities in several key sectors of Textile Technology including hosiery, silk and non-traditional areas like jute based fabrics. There are several sponsored projects currently being undertaken in the department. The major facilities in the department includes Nuovo Pignone Flexible Rapier loom with Stauble Electronic Dobby, Grosse Electronic Jacquard Air jet loom, Ruti-c high speed automatic loom, Braiding machine, Two for one twister, Open end spinning machine, Sulzer Ruti Flexible Rapier Loom, Kawabata Fabric Handle

Evaluation system, Air Permeability Tester, Jaypack Computer Color Matching system, Anti microbial finishing Lab, Nonwoven & Composite Manufacturing and Nano Finishing centre.

A Centre of Excellence for Industrial Textiles and Home Textiles, PSGTECHS COE INDUTECH, PSG TECH has been established at PSG TECH under the Scheme for Growth & Development of Technical Textiles (SGDTT) under Mini Mission I of Technology Mission on Technical Textiles (TMTT), promoted by Office of the Textile Commissioner, Ministry of Textiles, Government of India. PSGTECHS COE INDUTECH, PSG TECH provides testing facilities as per International standards for different products of Industrial textile segment, including fibre, yarn, fabrics as well as the final product. The information resource centre at PSGTECHS COE INDUTECH is equipped with technical literature, reference material, books, specifications and a sample bank containing samples of various products and information about manufacturing, production standards, testing procedures etc for the products of Indutech segment. Pilot plant facilities are established for development of prototypes / technology of main spectrum of Indutech products which will be transferred to the industry after standardization and optimization of the production process. COE in the near future will begin to impart training to textile technologists, academicians, scientists etc from TRAs, Institutes and Industry to develop a set of core professionals (trainers) on Indutech. The PSGTECHS COE INDUTECH, PSG TECH conducts workshops with the personnel of allied industries for awareness and promotion of respective technical textile products. Need-based Audio-visual films are being prepared on various aspects viz. technicality of potential products / application areas / installation & manufacturing process of INDUTECH segment and will be shown among users, manufacturers, entrepreneurs etc during workshops/seminars etc. The PSGTECHS COE INDUTECH, PSG TECH also provides support to the BIS in formulation of standards for INDUTECH segment.

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**Website: [www.psgtech.edu/coeindutech](http://www.psgtech.edu/coeindutech)**

## II) DETAILS OF TENDER AND TENDER NOTICE

Tender in sealed cover is invited by PSGTECHS COE INDUTECH, PSG TECH from manufacturers or authorized agents for the supply of machinery and testing instruments / accessories for the use of focus incubation centre at COE. Details of the machinery, equipments, accessory including resource and training centre and their specifications are given in Annexure I of this Tender document. Interpretation of the terms & conditions and other related issues in the Tender would lie with PSGTECHS COE INDUTECH, PSG TECH only. Tenders can be obtained from PSGTECHS COE INDUTECH, PSG TECH, Peelamedu, Coimbatore - 641 004, Tamil Nadu. The tender document can also be downloaded from the website of PSG TECH at [www.psgtech.edu/coeindutech](http://www.psgtech.edu/coeindutech). Tender documents down loaded from website should be accompanied by demand draft as specified tender document fee drawn in favour of "The Director, COE INDUTECH, PSGCT", payable at Coimbatore. One tender document is adequate even if bids are submitted for more than one item. Tender documents are available from 08.12.2016 @ **10.00 am** onwards to 28.12.2016 **up to 4.00 p.m.** LAST DATE FOR SUBMISSION OF DULY FILLED UP SEALED TENDER AT PSGTECHS COE INDUTECH, DEPARTMENT OF TEXTILE TECHNOLOGY, PSG COLLEGE OF TECHNOLOGY, PEELAMEDU, COIMBATORE is 29.12.2016 **up to 4.00 p.m.** On 30.12.2016 the technical bids will be opened at **10.00 a.m.** at PSGTECHS COE INDUTECH, Department of Textile Technology, PSG College of Technology, Peelamedu, Coimbatore.

A pre-bid meeting will be held on **15.12.2016 at 10.00 am** at PSGTECHS COE INDUTECH, Department of Textile Technology, PSG College of Technology, Peelamedu, Coimbatore to clarify queries that may be raised at that stage on issues concerning "Instructions to Bidders" of the bidding document as well as those relating to technical specifications.

PSGTECHS COE INDUTECH, PSG TECH reserves the right to accept or reject any or all the bids either in full or in part at its discretion without assigning any reason thereof. Address for Communication: PSGTECHS COE INDUTECH, Department of Textile Technology, PSG TECH, PO Box 1611, Peelamedu, Coimbatore - 641 004, Tamil Nadu.

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### III (A) TERMS AND CONDITIONS – GENERAL

1. Tender documents shall be issued by PSGTECHS COE INDUTECH, PSG TECH at Coimbatore to manufacturers / authorized agents. PSGTECHS COE INDUTECH, PSG TECH, Coimbatore will be the tender issuing authority.
2. Modifications, if any, made in the above documents will be done by addenda / corrigenda, copies of which will be sent in duplicate to each bidder before the due date of the tender. One copy should be signed, sealed and submitted along with the technical bids. Tender to be submitted, is as detailed hereafter. The bidder shall not make any additions / deletions to or amend the text of the documents except in so far as may be necessary to comply with any addenda / corrigenda issued. The bidders shall use only tender documents as issued for submitting their bid and shall comply with terms and conditions mentioned therein.
3. Original Tender document duly signed by the authorized person on all pages without any deletion or addition other than addenda / corrigenda released.
4. The full name of the person authorized to file the tender, designation, current and main office address, Phone Number, Fax Number and E-mail address shall be indicated in the tender.
5. Tenders sent through E-mail, Fax and Telex will not be entertained.
6. The tender should be filled in English. All accompanying literature and correspondence shall also be in English.
7. No claim for costs, charges, expenses incurred by the bidder in connection with preparation of tender for submission and for subsequent clarifications of their tender shall be accepted.
8. PSGTECHS COE INDUTECH, PSG TECH will not be responsible for any typographical errors/ ambiguity/ additions / omissions committed by the bidder while filling up of the tender.
9. Submission of a bid by a tenderer implies that the bidder has read all terms and conditions, and has made himself aware of the scope and specifications of the items to be supplied, availability of materials, local conditions and other factors bearing on the execution of the supply.
10. The bidder shall be deemed to have full knowledge of documents and no extra charges consequent on any misunderstanding or otherwise shall be allowed.
11. Any questions regarding the tender document and discrepancies shall be directed to the Tender Issuing Authority in writing and / OR mail to [psgindutech@gapps.psgtech.ac.in](mailto:psgindutech@gapps.psgtech.ac.in) within 7 days from the date of publication of tender. The Tender Issuing Authority will issue all clarifications, interpretations, meanings and specific directions, if any after pre bid meeting, in duplicate in writing to all the bidders. One copy of these shall be returned duly signed and seal affixed along with the bids.
12. It is for reasons mentioned under point numbers: 2 and 11 above that those intending bidders, who have downloaded Tender Documents from our said websites are suggested either to remain in touch



with Tender Issuing Authority, PSGTECHS COE INDUTECH, PSG TECH, through writing or visit our named website at intervals deemed fit, so that they will not get left out from being informed as and when addenda / corrigenda/ clarifications, interpretations, meanings and specific directions, if any, are issued.

13. The bidder shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender and about the rates quoted by him and cover all his obligations under the tender.

14. Bids submitted by manufacturers and authorized agents only shall be considered.

**15. Earnest Money Deposit:**

Tender must be accompanied by Earnest Money Deposit (EMD) at the rate of 2% of total cost that is stated in S.No. i) Of Annexure II separately for each item that is being quoted for, in the form of DD / Pay order/ Bank Guarantee in favour of “The Director, COE INDUTECH, PSGCT”, payable at Coimbatore. In case of bank guarantee, the format that is to be used for furnishing bank guarantee is posted at our website [www.psgtech.edu/coeindutech](http://www.psgtech.edu/coeindutech) and is also available with this document; the same shall only be used without any deviations whatsoever. Failure to adhere to this norm will lead to rejection of tender. Separate bank guarantee should be provided for each item quoted. Note that the bank guarantee format given is to be used only for EMD. **EMD shall be paid in Indian currency only.**

The EMD of unsuccessful bidders will be returned on or before the 30<sup>th</sup> day after the award of the contract.

The EMD of 2% for successful bidders will be returned after receiving the security / performance deposit. (Read point 16 for details on security / performance deposit)

**16. Security deposit and performance security :**

A security deposit at the rate of 5% of the total cost in the form of DD/BG shall be collected from the successful bidder and shall be held back as security deposit till successful installation, trial and training and subsequently as performance security deposit till the **end of completion of the free services. The amount shall be returned after the completion of all contractual obligations including warranty obligations or completion of the free services. If it is failed the EMD will not be returned at any circumstances.**

The EMD shall be forfeited if the tenderer withdraws his offer after the tender opening during the bid validity period or after the award of contract. PSGTECHS COE INDUTECH, PSG TECH shall not be liable for payment of any interest on EMD and security / performance deposit or any depreciation thereof.

Any offer not accompanied with the EMD shall be rejected summarily as non-responsive.

**17. Authority of signing:**

If the tender is submitted by an individual, it shall be signed by him.

If the tender is submitted by a proprietary firm, it shall be signed by the proprietor.

If the tender is submitted by a partnership firm, it shall be signed by all the partners of the firm or by a partner holding the power of attorney for the firm for signing of the tender, in which case, a certified copy of power of attorney shall accompany the technical bid.

If the tender is submitted by a limited company or a corporation, it shall be signed by a duly authorized person or the person holding the power of attorney for signing of the tender, in which case a certified copy of the power of attorney shall accompany the technical bid.

#### **18. Price & Currency bid:**

The tender shall be filled up in English with a neat hand / type and all the figures and words shall be legible.

The rates shall be written both in words and in figures. The bidder shall also show the amount of each item, the total of each section and the grand total of the whole tender.

Correction(s), if any, shall be made by crossing out, initialing with date and rewriting.

In case of conflict between the figures and words in the rates, the latter shall prevail.

The tenders shall be verified by the bidder for accuracy in the arithmetical calculations, prior to submission.

##### **18.1 Technical details shall contain:**

- a) Original Tender document duly signed by the authorized person on all pages including addenda / corrigenda without any deletion or addition other than addenda / corrigenda released.
- b) Compliance to technical specifications of the equipment / item for which bids are submitted – Authorized person to specify “all the above technical specifications will be complied with” and sign in respective pages of the Tender document, where machinery / equipment / instrument items for which bids are submitted are given and also give the exact specifications complied with of the machinery / equipment / instrument.
- c) Compliance to the terms and conditions of the tender document – Authorized person to specify, “All the above terms and conditions will be complied with” and sign in respective pages of the tender document, where “terms and conditions” are given. If any modifications / clarification are needed in the tender document that should be taken in the knowledge PSGTECHS COE INDUTECH in writing and / or mail to [psgindutech@gapps.psgtech.ac.in](mailto:psgindutech@gapps.psgtech.ac.in) within 7 days from the date of publishing tender. No modifications/correction / addition in the tender document were not allowed.

- d) Adherence to the stipulated delivery schedule of the equipment / item – Authorized person to specify “delivery schedule given above will be complied with” and sign in respective pages of the tender document, where “Delivery Schedule” is given as in Annexure II and Annexure III.
- e) Proof that the bidder is (i) either manufacturer or (ii) an authorized agent for the equipment / item for which the bid is submitted.
- f) List of organizations in India and abroad, along with Name of contact person, address, Tel. No., Fax No. etc., to which similar make / model of the machinery / equipment / instrument were supplied in the past.
- g) Compliance that the bidder has manufactured or supplied the machinery / equipment / instrument during the **past 2 years** for tendered item and performance report from at least 2 such users for the past 2 years.
- h) Covering letter, in the letter head of the bidder, stating:
  - 1. That the minimum warranty period will be one year after installation and commissioning of the machine / equipment.
  - 2. That the bid conforms to the terms and conditions of the tender.
  - 3. Confirmation about the supply of Certified Reference Materials / Samples for checking the performance of the machinery /testing instruments, wherever applicable.
  - 4. Confirmation that the quoted rates are valid till **29.06.2017**.
  - 5. The details regarding the service centres, stocking of spares etc.,
- (i) Addenda / corrigenda / clarification issued by PSGTECHS COE INDUTECH, PSG TECH before due date of tender, duly signed by the authorized person.
- (j) Descriptive leaflet / brochure giving the technical details of the machinery / equipments / instruments/accessories.
- (k) A letter indicating assumptions, criterion, technical alternative etc., if any. However, the alternatives suggested by the bidder would not be taken as the basis for technical / commercial evaluation of the bids.
- (l) The probable life expectancy of the machine / instrument / accessory under normal conditions of operation should be stated wherever applicable.
- (m)Details of pre-installation requisites including Consumables, space, electric power, compressed air supply, water / gas supply and any other, size of the table required in the case of test instruments etc.
- (n) Power of attorney authorizing the person who has filed the tender, if applicable.

- (o) A copy of the certificate for the calibration of the similar makes and model of equipment / instrument for which bid is submitted from an accredited calibration laboratory or National Physical Laboratory wherever applicable.
- (p) Profile of bidder's organization.
- (q) Complete Bill of material.

**18.2 Commercial details shall contain:**

- a) Total cost of the main equipment / instrument and accessories (imported / indigenous) required for the functioning of the equipment, including the control system, printer, packing & forwarding, taxes etc., duly filled and signed in the format prescribed in the tender document at Annexure – II. No money other than the total indicated above will be payable on any account.
- b) Calibration charges for next 4 years and Annual Preventive Maintenance charges for the next 3 years after the expiry of the warranty period, in the format prescribed in the tender document at Annexure – II.

**19. Validity of the tender:**

Rates quoted by the bidder shall be valid till **29.06.2017** or to an extended date as agreed upon mutually.

The Bidder shall not withdraw or revise or alter any condition(s), rate(s) quoted within this stated period, unless he is called upon to do so on mutual agreement / negotiations.

**20. Opening of tender:**

The Tender shall be opened by the Purchase Committee constituted by the Competent Authority, PSGTECHS COE INDUTECH, PSG TECH, at Coimbatore, at the time, date and venue as given under item S.No. II – “Details of Tender and Tender Notice”. (Page No. 6 of this Tender Document).

**21. Agreement:**

The successful bidder shall sign an Undertaking on Judicial paper worth Rs.100/= in the format prescribed in Annexure V before releasing of the purchase order by PSGTECHS COE INDUTECH, PSG TECH. A copy of the purchase order so received should be signed and returned as a token of acceptance of the terms and conditions of the Purchase Order along with security deposit (DD/BG) of 5% will be collected and retained till successful installation, trial and training, subsequently to which it will be retained as performance security deposit till the end of the warranty period and the amount shall be returned after 60 days after the completion of all contractual obligations including warranty obligations.

The EMD of 2% for successful bidders will be returned after receiving the security / performance deposit. (Read point 16 for details on security / performance deposit)

## 22. Criterion for rejection:

PSGTECHS COE INDUTECH, PSG TECH reserves the right to accept or reject any tender or reject all tenders without giving any reason whatsoever for their decision.

Tenders liable to be rejected are those in which any of the prescribed particulars / information is either missing or incomplete in any respect and / or if the prescribed conditions are not fulfilled. Tenders which are found to be technically non-responsive shall be rejected and their commercial details shall not be considered.

Canvassing in connection with tender is strictly prohibited and tender submitted by bidder who resorts to canvassing will be liable to rejection. Tenders containing specific conditions of the bidder, other than the terms and conditions given in the tender document, and not acceptable to PSGTECHS COE INDUTECH, PSG TECH, are liable to be rejected.

If the validity of the tender is not up to **29.06.2017** the tender will be rejected.

If the tender document is not duly signed by the authorized person on all pages, the same will be rejected.

PSGTECHS COE INDUTECH, PSG TECH caters to a wide range of customers / stake holders including manufacturers / exporters. Hence, Purchase Committee may at its discretion, give preference to more popular brands of machines and instruments / accessories, which are generally believed to out-perform and output results that are widely accepted internationally and the decision of the Committee on this score will be final.

Before submission of the tender, the prospective bidders are expected to examine technical specifications of the equipments required, terms and conditions, etc., given in this tender document. Failure to furnish all information required in the tender document may result in the rejection of the bid.

PSGTECHS COE INDUTECH, PSG TECH reserves the right to cancel items, from the stated list of requirement of machinery, equipments and instruments, without assigning any reason thereof.

23. It should clearly be noted that all contracts resulting out of entering into a formal agreement / issue of a purchase order for procurement of any machinery / equipment / instrument will be interpreted under Indian Laws and for all disputes the jurisdiction will be Coimbatore only.
24. In case of any dispute or difference between the PSGTECHS COE INDUTECH and the supplier in respect of/arising out of the transaction right from the stage of submitting tender shall be referred to the decision of the sole arbitrator to appointed by PSGTECHS COE INDUTECH and the decision of the said arbitrator will be final and binding upon the parties and all concerned.

### III (B) TERMS AND CONDITIONS – SPECIAL

- A. Cost details are to be filled up in the prescribed format as given at Annexure – II for the machinery, equipments and instruments as applicable, imported / indigenous as the case may be, indicating therein total charges.
- B. All accessories start up kit required for installation & commissioning the main equipments is to be specified and quoted and to be included in the CIF / CIP value. (The machine / equipment will be placed in new lab, so add all the items. If it is noticed later stage, the supplier will take responsible for the short supply)
- C. All consumable spare parts for 3 years and replacement of the broken/damaged parts during the guarantee / warrantee period without any charge. The list of those items should clearly mention in a separate sheet with cost. These items should not be included in the CIF / CIP value.
- D. The terms of payment in case of indigenous machinery / equipment shall be:
  - a) 20% of the total price of the machinery / equipment will be paid as advance on receipt of acceptance of purchase order and proforma invoice.
  - b) 80% of the total price of the machinery / equipment will be paid after successful commissioning of the machinery / equipment, demonstration of satisfactory performance and imparting training to the technical personnel of PSGTECHS COE INDUTECH, PSG TECH.
- E. For indigenous items, the bidder should take responsibility for delivering the machinery/ equipments (FOR) inside the premises of PSGTECHS COE INDUTECH, PSG TECH at good conditions.
- F. **The suppliers of machinery / equipment should provide adequate training in two phase manner for at least 2 technical personnel of PSGTECHS COE INDUTECH, PSG TECH, per equipment, including trouble shooting etc and make them confident of operating the same independently. (One training at the time of commissioning for min 3 working days and 2nd training after 2 or 3 months (for Min 3 working days) from the date of commissioning). If not done, the performance security amount will not be returned.**
- G. The bidder shall adhere to the delivery period of the equipment / item as committed by him in Annexure II or the one indicated in Annexure III of the tender document, whichever is earlier. Penalty for non-execution of the order within the delivery period and also for non execution of commissioning and training shall be 1% of the total cost (Without Tax) (CIF/CIP / FOR) of the equipment / item for every week of delay.

Any amendments in the purchase order are addressed to the purchase committee within 5 days from the date of issue of purchase order. Delivery period will be remaining unchanged.

Should the delay become unavoidable due to some unforeseen reason, this fact together with proper justification for the same should be communicated to the Chairman, Purchase Committee, PSGTECHS COE INDUTECH, PSG TECH and his written permission should be obtained to avoid penalty. The

decision of the said Chairman on matters relating to grant of extension of time will be final and binding on the bidder.

- H. During the warranty period, regular servicing / maintenance should be undertaken free of charge, including the replacement of defective parts / travel cost, etc. Subsequently, servicing / maintenance should be undertaken by the authorized agency of the manufacturer / supplier as per the annual maintenance contract conditions.
- I. Operation manuals, calibration procedures and other instruction documents should be provided along with each of the equipment in English version only.
- J. Terms for service contract (comprehensive or non-comprehensive) after the expiry of warranty period are to be clearly stated.
- K. The Control Systems like computer and printer, compatible to the main machine / instrument, are to be supplied from indigenous sources with latest configuration and licensed operating system.
- L. If the bidder is not himself a manufacturer but, is participating in the tender as the agent of the manufacturer, authorization letter of the manufacturer to the bidder for marketing and servicing the equipments in India should be enclosed along with the technical bid of the tenderer. In the absence of such authorization, the tender will not be considered at all.
- M. In case of short supply / damaged condition or wrong supply of machinery / instrument, its parts or accessories or supply of items in damaged condition, it is the responsibility of the bidder to arrange for the supply of the required items in good working condition as per the purchase order within a reasonable time at supplier's own cost. Any additional expenditure, whatsoever, for the above will be borne by the bidder only. In case of issue of purchase order for local items which is required for the imported item, the same should be supplied before the delivery of the imported goods.
- N. The specifications given in this document are the minimum requirement. The bidders are free to offer machinery / equipments / instruments with better features (including attachments) also. However, evaluation shall be based on the features mentioned in the tender document only. If different models are quoted, the cost details may be given in separate sheet.
- O. Orders for the supply of items, once placed with successful bidder, are non- transferable and no sub-contracting is permitted. PSGTECHS COE INDUTECH, PSG TECH reserves the right to cancel the order in such an event.
- P. Any non-fulfillment of the stipulations given above will make the bid invalid.
- Q. The bids shall first be evaluated for their "technical responsiveness" which shall inter-alia include,
  - (i) Proof that the bidder is (i) either manufacturer or (ii) an authorized agent for the machinery/equipment / item for which the bid is submitted,



- (ii) Enclosure of EMD and Tender Document fee being applicable in those cases, where tender document was downloaded from our websites,
- (iii) Compliance to technical specifications of the machinery / equipment for which the bid is submitted,
- (iv) Adherence to the warranty period,
- (v) Documents in support of compliance to the calibration of the equipment / instrument and its traceability to national / international standards of measurement and proven performance through proficiency testing, wherever such requirement is specified.
- (vi) Necessary documentary proof that the bidder has manufactured or supplied the machinery / equipment during the past 2 years along with the list of such customers and performance report of the machinery / equipment from at least 2 of such customers / users for the past 2 years.
- (vii) Details regarding the service centres, stocking of spares etc.
- (viii) Confirmation about the supply of Certified Reference Materials / Samples for checking the performance of the testing instruments, wherever applicable.
- (ix) Compliance to all other relevant and critical terms and conditions of the tender.

**(x) Validity of the tender up to 24.04.2017.**

**If any of the above mentioned parameters are not fulfilled, the bid will be considered as technically non-responsive.**

R. The commercial details of those bidders who are technically responsive only shall be evaluated based on the following criteria:

- (i) Total price of the equipment as CIP / CIF, Chennai for imported items.
- (ii) Total price (FOR) of the indigenous items including delivery charges up to PSGTECHS COE INDUTECH, Neelambur, Coimbatore.
- (iii) AMC charges for **three** years after the expiry of the warranty period.
- (iv) Calibration charges for **next 4** years after warranty period.

S. Fluctuations in foreign exchange rate in respect of imported equipments / machinery shall be borne by the equipment / machinery supplier or authorized agent only.



**List of instruments along with the Technical Specifications of the State-of-the-art Machinery /  
Equipments / Instruments**

**Annexure I**

#	Machine name	Page No.
1	Cutting Machine: a) Hammer mill b) Mixing machine	18
2	Respiratory converting machine: a) Cutting machine	19
3	Ultrasonic bonding and Finishing machine: a) Non woven Ultrasonic bonding & Finishing machine for Home decorative b) Weighing balance for finisher machine c) Seam sealing machine	20
4	Filter converting machine: a) Dryer machine	21
5	Yarn winding machine: a) Direct twisting machine for yarn winding	23
6	Inverted Microscope – option A and B	24

**1. Cutting machine**

**a) Hammer mill**

**Technical specification:**

- a) Capacity – Min 200 kgs / hr,
- b) Feeding material - Branches of wood or coconut leaf stem,
- c) Particle output size - 3 to 20 mm, with bottom perforation of 20 mm

**b) Mixing machine**

**Technical specification:**

The machine is intended to mix the coir pith, wood waste/coconut leaf stem/tuft waste particles along with the adhesive of required quantity. The ingredients are put in to the top opening of the mixer and the blade mixes the material thoroughly.

- a) Capacity – Min 200 kgs / hr,
- b) Motor - Approximately 10 hp,
- c) Provision for the removal of the mixed material at the bottom of the machine.

## **2. Respiratory converting machine**

### **a) Cutting machine:**

#### **Technical specification:**

- a) Cutting size of the board is 8 ft x 6 ft,
- b) Provided with double cutter, one fixed cutter and one movable cutter, movable cutter should be able to move from 2 ft to 8 ft,
- c) with all necessary safety guards for cutting knife
- d) Suitable dust collector to be supplied
- e) Extra knives can be quoted as optional
- f) with all necessary accessories for smooth operation of the machine

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### **3. Ultrasonic bonding & finishing machine**

#### **a) Non woven Ultrasonic bonding & Finishing machine for Home decorative:**

##### **Technical specification:**

- a) Print size - 2500 mm x 1250 mm,
- b) Print head - Ricoh - Gen 5 Grey level Piezo print head,
- c) Print resolution - 600 x 2400 dpi,
- d) Print mode - uni directional & bidirectional,
- e) Ink color - LM,LC,Y,M,C,K(Optional),
- f) No of head - 5
- g) Material thickness - up to 100 mm,
- h) Ink type - UV curing ink,
- i) Material type - Coir sheet, wood, Glass, Acrylic, Corrugated sheet, Canvas, Plastic, etc,
- j) Input format - Adobe post script level 3,PDF,Jpeg,Tiff,Eps,Al,
- k) With water cooling LED UV lamp,
- l) With automatic material thickness measurement
- m) With vacuum table for holding the material firmly
- n) The machine should have the capability of printing white color also
- o) C,M,Y,K Inks each color 5 litres to be quoted as optional
- p) Varnish – 10 litres to be quoted as optional

#### **b) Weighing balance for Resin Impregnation**

##### **Technical specification:**

- a) Conveyor weighing balance to fix on line with machine
- b) Conveyor size – 8 ft x 6 ft
- c) Capacity Max 200 kgs
- d) Resolution - +/- 50 gms or less
- e) With suitable number of load cells
- f) With battery backup and digital display

#### **c) Seam sealing machine**

##### **Technical specification:**

- a) Maximum sealing speed - 60 ft / min
- b) Maximum temperature - 800 deg cel
- c) Nozzle unit - 22 mm
- d) Upper roller width - 25.4 mm
- e) Lower roller width - 31 mm
- f) Differential speed for top/bottom roller
- g) With digital tensioning device

#### **4. Filter converting machine**

##### **a) Dryer for Resin Impregnation**

###### **Technical specification:**

- a) Thermo pack capacity - 10,00,000 Kcal / hr
- b) Maximum outlet Temperature - 280 deg
- c) Fuel - Wood /Husk Briquette
- d) Accessories like pumps, duct collectors, Non return valves, gate valves, Strainers, Pressure safety valves,etc should be supplied along with the machine
- e) In & Out Oil pipe line between thermo pack and machine with proper insulation should be supplied along with the machine. Distance between the user machine and Thermo pack is approximately 500 ft.
- f) Suitable Thermic oil should be supplied
- g) Any other optional items for better operation/performance of the machine can be added as optional

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## 5. Yarn winding machine

### a) Direct twisting machine for yarn winding machine:

#### Technical specification:

- a) No. Of Twisting Units : 2
- b) Twisting speed : Min 10000 twist / min, Totally Independent adjustment for each spindle
- c) Twisting Range : Min 1000 twist / mtr, increment of 1 twist / mtr
- d) Take up speed : up to 200 mts / min
- e) Yarn count range : 90 – 500 Denier and above
- f) No. of plies : Min 8
- g) Twist : S & Z
- h) Yarn break sensor : Required
- i) Package : Cone / Cheese

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## 6 A. Inverted Microscope

1. General Description	<p>1.1. The Inverted Metallurgical Microscope shall have the following features:</p> <p><b>1.1.1.</b> Reflected Light illumination</p> <p><b>1.1.2.</b> Coded optics with DIC or Better.</p> <p><b>1.1.3.</b> Digital CCD Camera</p> <p><b>1.1.4.</b> Image Analysis software</p>
2. Microscope Stand	<p>2.1. The microscope stand shall be a rigid metallic stand for operating stability and convenience upto maximum magnifications</p> <p>2.2. The microscope stand shall have the following features:</p> <p><b>2.2.1.</b> Manual reflected light path</p> <p><b>2.2.2.</b> Manual 2 or more steps focus drive</p> <p><b>2.2.3.</b> Coded 6 fold objective turret for all contrasting techniques</p> <p><b>2.2.4.</b> Manual 3 plate stage 100X 50mm with stage inserts</p> <p><b>2.2.5.</b> Provision for camera ports with Minimum 2 switching positions for simultaneous view through eyepiece and monitor.</p>
3. Contrast Methods	<p>3.1. The microscope shall have the following contrast techniques:</p> <p><b>3.1.1.</b> Bright Field illumination (BF)</p> <p><b>3.1.2.</b> Dark Field illumination (DF)</p> <p><b>3.1.3.</b> Polarized contrast illumination (POL)</p> <p><b>3.1.4.</b> DIC or better</p>
4. Illumination	<p>4.1. LED illumination to ensure contrast color temperature at different contrasting</p> <p>4.2. All the required peripherals such as cables, controls and connections to be provided with the quoted illumination system</p>
5. Objective lens system	<p>5.1. The objective lenses shall be of <b>Plan Achromatic grade</b> with Field of View of minimum 22 mm suited for BF, DF, DIC and POL contrast techniques</p> <p><b>5.2. Objective Lens Magnification:</b></p> <p><b>5.2.1.</b> 5X with Numerical Aperture=0.12 or better. WD 14.0 mm</p> <p><b>5.2.2.</b> 10X with Numerical Aperture=0.25 or better. WD-16.1 mm</p> <p><b>5.2.3.</b> 20X with Numerical Aperture=0.40 or better. WD-1.15mm</p> <p><b>5.2.4.</b> 50X with Numerical Aperture=0.75 or better WD-0.37</p> <p><b>5.2.5.</b> 100X with Numerical Aperture=0.85 or better. WD-0.33</p>
6. Eyepiece Lens	<p>6.1. Pair of Plan Achromatic grade Eyepieces of 10X magnification with Field of View 22mm or better</p> <p>6.2. Eyepiece with ASTM graticule for Grain size measurements</p> <p>6.3. Eyepiece with scale: 10 mm divided into 100 units</p> <p>6.4. Eyepiece with Cross line with 0.1 mm graduations</p>
7. Nosepiece	<p>7.1. Coded 6-fold/position Revolving nosepiece</p>

	<p>7.2. Coded for all contrasting techniques</p> <p>7.3. Parfocal distance: min.45 mm</p>
8. Focus system	8.1. 2 or more step focus system with coarse, medium and fine focusing
9. Microscope stage	<p>9.1. Manual 3 plate stage- Travel Range 100mm X 50mm or better, scratch resistant.</p> <p>9.2. Ergonomic operating handle with coaxial drive for x and y. Adjustable torque.</p> <p>9.3. Metal Inserts with opening of dia of 10 mm, 20mm,30mm and 40 mm shall be provided – Each insert 1 no.</p>
10. Viewing Tube	<p>10.1. Microscope shall have Binocular Fix tube with viewing angle 45 degrees</p> <p>10.2. Manual coded camera side port to the left hand side with</p> <p><b>10.2.1.</b> 100% visual / 0% camera or 80% Port/20% Eyepiece split</p> <p><b>10.2.2.</b> Field view 22mm or better.</p> <p>10.3. Variable interpupillary distance of 55 mm to 75 mm or better</p>
11. Polarizer	The illumination light should be linearly polarized by means of a – polarizer and rotatable analyzer (Polarizer may be 90 deg and Analyzer should be 180 deg rotatable.)
12. Digital CCD Camera	<p>12.1. The microscope shall be equipped with high resolution CCD color camera with the following features:</p> <p><b>12.1.1.</b> Resolution: min.5 Million Pixels or better</p> <p><b>12.1.2.</b> PC interface should be with USB 2.0 or better</p> <p><b>12.1.3.</b> Pixel size: min. 3.4 <math>\mu\text{m}</math> x 3.4 <math>\mu\text{m}</math> or better</p> <p><b>12.1.4.</b> Image format: bmp, tiff, jpeg</p> <p><b>12.1.5.</b> Camera speed: 15 fps or better</p> <p><b>12.1.6.</b> Compatible with latest version of Windows operating system</p> <p><b>12.1.7.</b> Power supply: 230-250V / 50Hz</p> <p>12.2. The camera shall be equipped with all necessary PC interface cable and software</p>
13. Image Analysis software (optional)	<p>Image analysis system shall perform the following quantitative analysis on metallographic samples:</p> <p>A) Grain size analysis by comparison method and automatic method as per ASTM E112. JIS G0551/0552 and ISO 643:20021) with Planimetric, Vertical Lines, Horizontal Lines, Three circle method and E1832 Linear Intercept methods</p> <p>B)Phase Percentage analysis: Automated measurement to ensure</p>



	<p>repeatability and - Integrated report generation facility, including standard templates that can be easily customisable</p> <p>Can Identify up to 8 or better different phases represented in an image by color or contrast. Can able to Measures multiple parameters such as the area, surface, intercepts of each phase. Customized report generated in Excel.</p> <p>C) The Image analysis software shall have the Interactive and live measurements such as length, area and angle in live image as well as stored images.</p> <p>D)Acquiring images at different focus positions and combining into a single image of sharp across the whole field of view</p> <p>E)Customized report generation to EXCEL/PDF/WORD Formats.</p> <p>F)Software should have step by step methods to perform above analysis</p> <p>G) Supplier should provide the original licensed version of the software, work instructions and manual of software both in hard/ soft copy.</p>
14. Personal Computer and Printer	<p>14.1. PC with Intel- I5 processor or better version</p> <p>14.2. 8GB RAM (minimum)</p> <p>14.3. 1 TB Hard disk (minimum)</p> <p>14.4. 2 GB (minimum) Graphic card</p> <p>14.5. Peripheral control interface (PCi)- 2 nos (minimum)</p> <p>14.6. 19" or better High resolution color LCD monitor</p> <p>14.7. Keyboard and Mouse</p> <p>14.8. Operating system: Windows 7 or better version with Original license</p> <p>14.9. Microsoft office 2010 or better version with original license</p> <p>14.10. DVD writer</p> <p>14.11. USB ports</p> <p>14.12. Ethernet</p>
15. Electrical Requirements	<p>15.1. 230-250V, 50Hz , single phase AC, High Quality SMPS Should be provided.</p>
16. Other Accessories and Additional Requirements	<p>16.1. Spares and consumables recommended for two year trouble free operation along with item wise price has to be mentioned.</p>

17. Warranty/Guarantee clause	<p>17.1. The equipment under the scope of supply along with the accessories shall have warranty against all types of defects for at least a period of one year (12 months ) from the date of successful commissioning (two year warranty is preferred).</p> <p>17.2 The manufacturer/ supplier should be able to provide after sales service at the location where instrument is installed.</p> <p>17.3 Any defects in the equipment and the spares found in the warranty period shall be rectified/ replaced by the supplier on no charge basis.</p>
18. Additional Terms and conditions	<p>18.1. The supplier has to provide a set of hard and soft copy of Catalogues, operating and service manuals in English with relevant features of the instrument.</p> <p>18.2. The supplier has to declare the list of service centers/ facility (including their contact details ) available in India or the office which will provide service to the unit.</p> <p>18.3. Additional software items if any which are not included in the supplier's original list of deliverables, that are required to complete the configuration to meet the operational requirements are to be supplied by the supplier at no extra cost.</p> <p>18.4. The supplier shall mention the pre-installation requirement.</p> <p>18.5. Software copy with lifetime updating option must be provided.</p> <p>18.6. <b>The vendor should have supplied similar system to at least two reputed institutes. List of the customers with contact details should be provided.</b></p>
19. Acceptance Criteria	<p>19.1. Original manufacturer's quality/ inspection certificate should be provided at the time of installation.</p> <p>19.2. All specification requirements and additional capabilities if any should be demonstrated after integration of microscope, camera and computer by the supplier at working site.</p> <p>19.3. Center of image in the field of microscope in view and image on the monitor should be same.</p> <p>19.4. All the functions of the software should be properly displayed and explained.</p>

## 6 B. Inverted Microscope

1. General Description	<p>1.2. The Upright Metallurgical Microscope shall have the following features:</p> <p><b>1.1.1.</b> Reflected and Transmitted light illumination</p> <p><b>1.1.2.</b> Coded optics</p> <p><b>1.1.3.</b> Digital CCD Camera</p> <p><b>1.1.4.</b> Image Analysis software(Optional)</p>
2. Microscope Stand	<p>2.1. The microscope stand shall be a rigid metallic stand for operating stability and convenience upto maximum magnifications</p> <p>2.2. The microscope stand shall have the following features:</p> <p><b>2.2.1.</b> Capable of both reflected and Transmitted illumination</p> <p><b>2.2.2.</b> Manual 2 or better steps focus drive</p> <p><b>2.2.3.</b> Manual or better fold objective turret for all contrasting techniques</p> <p><b>2.2.4.</b> 4 position manual turret for BF, DF cubes</p> <p><b>2.2.5.</b> Manual aperture and Diaphragm or better.</p>
3. Contrast Methods	<p>3.1. The microscope shall have the following contrast techniques:</p> <p><b>Reflected Light</b></p> <p><b>3.1.1.</b> Bright Field illumination (BF)</p> <p><b>3.1.2.</b> Dark Field illumination (DF)</p> <p><b>3.1.3.</b> Polarized contrast illumination (POL)</p> <p><b>Transmitted Light</b></p> <p>3.1.4 Bright field(BF)</p> <p>3.1.5 Polarized contrast illumination (Pol)</p>
4. Illumination	<p>4.1. LED illumination for both reflected and transmitted to ensure contrast color temperature at different contrasting</p> <p>4.2. All the required peripherals such as cables, controls and connections to be provided with the quoted illumination system</p>
5. Objective lens system	<p>5.1. The objective lenses shall be of <b>Plan Achromatic grade</b> with Field of View of minimum 22 mm suited for BF, DF, DIC and POL contrast techniques</p> <p><b>5.2. Objective Lens Magnification:</b></p> <p><b>5.2.1.</b> 5X with Numerical Aperture=0.12 or better. WD 14.0 mm</p> <p><b>5.2.2.</b> 10X with Numerical Aperture=0.25 or better. WD-16.1 mm</p> <p><b>5.2.3.</b> 20X with Numerical Aperture=0.40 or better. WD-1.15mm</p> <p><b>5.2.4.</b> 50X with Numerical Aperture=0.75 or better WD-0.37</p> <p><b>5.2.5.</b> 100X with Numerical Aperture=0.85 or better. WD-0.33</p>
6. Eyepiece Lens	<p>6.1. Pair of Plan Achromatic grade Eyepieces of 10X magnification with Field of View of 22 mm or better</p>

	6.2. Eyepiece with ASTM graticule for Grain size measurements 6.3. Eyepiece with scale: 10 mm divided into 100 units 6.4. Eyepiece with Cross line with 0.1 mm graduations
7. Nosepiece	7.1. Coded 6-fold/position Revolving nosepiece 7.2. Coded for all contrasting techniques 7.3. Parfocal distance: min.45 mm.
8. Focus system	8.1. 3 step focus system with coarse, medium and fine focusing
9. Microscope stage	9.1. Mechanical stage- Travel Range 75 mm X 50mm, scratch resistant . 9.2. Ergonomic operating handle with coaxial drive for x and y. Adjustable torque.
10. Viewing Tube	10.1. Microscope shall have Trinocular Fix tube with viewing angle 45 degrees <b>10.1.1.</b> 50% visual / 50% camera <b>10.1.2.</b> Field view 22mm or better 10.2. Variable interpupillary distance of 55 mm to 75 mm or better.
11. Polarizer	11.1. The illumination light should be linearly polarized by means of – polarizers for reflected and transmitted light and 180 °or more rotatable analyzer
12. Digital CCD Camera	12.1. The microscope shall be equipped with high resolution CCD color camera with the following features: <b>12.1.1.</b> Resolution: min.5 Million Pixels or better <b>12.1.2.</b> PC interface should be with USB 2.0 or better. <b>12.1.3.</b> Pixel size: min. 3.4 $\mu\text{m}$ x 3.4 $\mu\text{m}$ or better <b>12.1.4.</b> Image format: bmp, tiff, jpeg <b>12.1.5.</b> Camera speed: 15 fps or better <b>12.1.6.</b> Compatible with latest version of Windows operating system <b>12.1.7.</b> Power supply: 230-250V / 50Hz 12.2. The camera shall be equipped with all necessary PC interface cable and software
13. Image Analysis software (optional)	Image analysis system shall perform the following quantitative analysis on metallographic samples:  A) Grain size analysis by comparison method and automatic method as per ASTM E112. JIS G0551/0552 and ISO 643:20021) with Planimetric, Vertical Lines, Horizontal Lines, Three circle method and E1832 Linear Intercept methods  B) Phase Percentage analysis: Automated measurement to ensure repeatability and - Integrated report generation facility, including standard templates that can be easily customisable Can Identify up to 8 or better different phases represented in an image by colour or contrast. Can able to Measures multiple parameters such as the area, surface, intercepts of each phase.

	<p>Customised report generated in Excel.</p> <p>C) The Image analysis software shall have the Interactive and live measurements such as length, area and angle in live image as well as stored images.</p> <p>D) Acquiring images at different focus positions and combining into a single image of sharp across the whole field of view</p> <p>E) Customized report generation to EXCEL/PDF/WORD Formats.</p> <p>F) Software should have step by step methods to perform above analysis</p> <p>G) Supplier should provide the original licensed version of the software, work instructions and manual of software both in hard/ soft copy.</p>
14. Personal Computer and Printer	<p>14.1. PC with Intel- I5 processor or better version</p> <p>14.2. 8GB RAM (minimum)</p> <p>14.3. 1 TB Hard disk (minimum)</p> <p>14.4. 2 GB (minimum) Graphic card</p> <p>14.5. Peripheral control interface (PCi)- 2 nos (minimum)</p> <p>14.6. 19" or better High resolution color LCD monitor</p> <p>14.7. Keyboard and Mouse</p> <p>14.8. Operating system: Windows 7 or better version with Original license</p> <p>14.9. Microsoft office 2010 or better version with original license</p> <p>14.10. DVD writer</p> <p>14.11. USB ports</p> <p>14.12. Ethernet</p>
15. Electrical Requirements	<p>15.1. 230-250V, 50Hz , single phase AC, High Quality SMPS should be provided.</p>
16. Other Accessories and Additional Requirements	<p>16.1. Spares and consumables recommended for two year trouble free operation along with item wise price has to be mentioned.</p>

17. Warranty/Guarantee clause	<p>17.1. The equipment under the scope of supply along with the accessories shall have warranty against all types of defects for at least a period of one year (12 months ) from the date of successful commissioning (two year warranty is preferred).</p> <p>17.2 The manufacturer/ supplier should be able to provide after sales service at the location where instrument is installed.</p> <p>17.3 Any defects in the equipment and the spares found in the warranty period shall be rectified/ replaced by the supplier on no charge basis.</p>
18. Additional Terms and conditions	<p>18.1. The supplier has to provide a set of hard and soft copy of Catalogues, operating and service manuals in English with relevant features of the instrument.</p> <p>18.2. The supplier has to declare the list of service centres/ facility (including their contact details ) available in India or the office which will provide service to the unit.</p> <p>18.3. Additional software items if any which are not included in the supplier's original list of deliverables, that are required to complete the configuration to meet the operational requirements are to be supplied by the supplier at no extra cost.</p> <p>18.4. The supplier shall mention the pre-installation requirement.</p> <p>18.5. Software copy with lifetime updating option must be provided.</p> <p>18.6. <b>The vendor should have supplied similar system to at least two reputed institutes. List of the customers with contact details should be provided.</b></p>
19. Acceptance Criteria	<p>19.1. Original manufacturer's quality/ inspection certificate should be provided at the time of installation.</p> <p>19.2. All specification requirements and additional capabilities if any should be demonstrated after integration of microscope, camera and computer by the supplier at working site.</p> <p>19.3. Center of image in the field of microscope in view and image on the monitor should be same.</p> <p>19.4. All the functions of the software should be properly displayed and explained.</p>

**Note : Both option A and B should be submitted separately.**

**FORMAT FOR COST DETAILS**

(Cost particulars should be given in this format machinery-wise / instrument-wise/ accessories-wise separately)

Note: All the cost particulars should be furnished either in Indian Rupees or Foreign Currency. If more than one model of the machinery / instrument is quoted, use separate sheets.

Part 1: Cost details of imported equipments / instruments:

Name of the Machinery /Instrument:		
S.No.	Cost Details for Foreign Components	Cost with currency
i)	Total CIP / CIF Chennai cost inclusive of all demands – like, taxes & duties, inspection, packing, forwarding & handling charges, insurance charges, freight charges and all other. (Detailed break-up must be given separately). Optional items cost quoted separately.	
ii)	Start up items (Pre installation items)	
iii)	AMC details:- AMC rate per year (comprehensive / non comprehensive) for the next 3 years after the expiry of warranty period including the accessories (Two preventive and one break down visits)	1 <sup>st</sup> Year : 2 <sup>nd</sup> Year : 3 <sup>rd</sup> Year :
iv)	Calibration charges per year for the next 4 years, after the expiry of warranty period.	1 <sup>st</sup> Year : 2 <sup>nd</sup> Year : 3 <sup>rd</sup> Year : 4 <sup>th</sup> Year :
Total		
EMD @ 2% of Total CIP / CIF cost as it appears under S.No. (i)		
Delivery schedule of the machinery / equipments		____ months

Part 2: Cost details of Indigenous machinery / equipments / instruments:

Name of the Machinery / Instrument:		
<b>S.No.</b>	<b>Cost Details for Indigenous items</b>	<b>Cost in Rupees</b>
i)	Total cost inclusive of all demands – like, taxes & duties, inspection, packing, forwarding & handling charges, insurance charges, freight charges upto PSGTECHS COE INDUTECH, Coimbatore (FOR) and all other. (Detailed break-up to be given separately). Bill of materials must be submitted along with this. Optional items cost quoted separately.	
ii)	Start up items (Pre installation items)	
iii)	AMC (Including calibration) details:-  AMC (Including calibration) rate per year (comprehensive / non-comprehensive) for the next 3 years, after the expiry of warranty period including the accessories (Two preventive and one break down visits)	1 <sup>st</sup> Year :  2 <sup>nd</sup> Year :  3 <sup>rd</sup> Year :
iv)	Calibration charges per year for the next 4 years, after the expiry of warranty period.	1 <sup>st</sup> Year : 2 <sup>nd</sup> Year :  3 <sup>rd</sup> Year :  4 <sup>th</sup> Year :
Total		
EMD @ 2% of Total cost as it appears under S.No. (i)		
Delivery schedule of the machinery / equipments		____ months



S. No.	Details of Requirement for Opening L/C. (Imported items only)
1	Foreign Supplier's Name and Complete address on whom L/C will be opened
2	Foreign Banker's Name & Address
3	Foreign Supplier's Bank Account No. and Swift Code
4	Port of shipment
5	Country of Origin
6	Period to keep open the L/C – (Validity of L /C)
7	Period of negotiation will be 21 days
8	Delivery Schedule from the date of issue of Purchase order

Note:

1. Additional copies may be taken for each machinery / instrument
2. Octroi, if paid, will be reimbursed separately at actual.

**DELIVERY SCHEDULE FOR INDIGENOUS /IMPORTED EQUIPMENT**

<b>S. No.</b>	<b>Machinery / Equipment</b>	<b>Delivery Schedule - maximum time limit</b>
1	Indigenous Item	2 – 3 months from the date of issuing Purchase Order / release of 1 <sup>st</sup> advance amount.
2	Imported Item	3 – 4 Months from the date of issuing Purchase Order / issue of LC

PSGTECHS COE INDUTECH

**FORMAT TO BE FILLED UP AND SUBMITTED  
IN THE LETTER HEAD OF THE BIDDER DURING BID SUBMISSION**

To

The Director  
PSGTECHS COE INDUTECH  
PSG TECH  
Post Box No. 1611  
Peelamedu  
Coimbatore - 641 004

Dear Sir,

Sub: Supply of Machinery/ Equipments /Instruments and / or accessories to PSGTECHS COE INDUTECH, PSG TECH as per the specifications mentioned in the Tender - Reg.

Ref: Your Tender No. PSGTECHS COE INDUTECH/FIC 5 DT **08.12.2016**.

- 
- a) Having examined the conditions of Tender and Specifications of the machinery, instruments and / or accessory, we, the undersigned, offer to supply machinery / instruments and equipments as mentioned in Annexure I as per the specifications given in the tender along with standard spares / accessories as specified.
  - b) Earnest Money Deposit (EMD) as given in Point No.15- Page No. 8 – Under III (A) – Terms and Conditions - General in the form of Bank Demand Draft / Pay Order / Bank Guarantee in favour of “The Director, COEINDUTECH PSGCT” payable at Coimbatore as detailed in Tender Conditions is enclosed.
  - c) The original tender document duly signed on all pages is enclosed.
  - d) We agree to abide by the conditions mentioned in this tender during the entire period when it remains active.
  - e) If our tender is accepted, we undertake to supply the machinery / instruments and equipments and install the same at **PSGTECHS COE INDUTECH, PSG TECH, Neelambur Campus** within the specified periods mentioned by us in Annexure II.
  - f) We agree to supply consumable spare parts and replacement of the broken/damaged/non-compatible parts during the guarantee / warranty period, free of charge, as per the terms and conditions.
  - g) The probable life expectancy of the machine/instrument/accessory under normal conditions of operation will be \_\_\_\_\_ Years.
  - h) We agree to train the personnel of PSGTECHS COE INDUTECH, PSG TECH free of charge, as per the terms and conditions.

i) If our tender is accepted we will obtain and arrange:

1. To sign an Undertaking on Judicial Paper worth Rs.100/= in the format prescribed in Annexure V before releasing of the Purchase order by PSGTECHS COE INDUTECH, PSG TECH.
2. Security deposit at the rate 5% of the total cost of the equipment in the form of DD/BG will be Submitted along with accepted purchase order within 10days.
3. Any other statutory obligation, if any, prior to commencement of supply of machinery / Instrument.

j) We agree for the validity of our tender up to **29.06.2017**.

k) We understand that unless and until a formal Agreement / order is prepared and issued by PSGTECHS COE INDUTECH, PSG TECH, this tender together with our written acceptance thereof, shall constitute a binding contract between us and PSGTECHS COE INDUTECH, PSG TECH.

l) We declare that only tender documents, as issued for submitting this bid have been made use of by us and agree to comply with terms and conditions contained therein.

m) We understand that you are not bound to accept the lowest or any other tender you may receive.

n) We agree to make a presentation of the products to be supplied by us, before the Purchase Committee, if need be, on a mutually convenient date.

Authorized Signatory to Tenderer

Signature dated

Designation / Capacity

Name

Tender Reference No.:

Dated:

**UNDERTAKING / DECLARATION FOR SUPPLY OF GOODS.**

(EXECUTED ON NON-JUDICIAL STAMP PAPER OF Rs.100/-)

(This format to be submitted before issue of PO)

To  
The Director,  
PSGTECHS COE INDUTECH,  
PSG TECH,  
Post Box No. 1611,  
Peelamedu,  
Coimbatore - 641 004.

**Dear Sir,**

- A. We, \_\_\_\_\_ (Bidder's Name & Address) undertake to supply the item (s) \_\_\_\_\_ (Name(s) of machinery/instruments) as per the detailed specification of Tender and honour the terms and conditions of the tender document.
- B. We undertake to supply the machinery/equipment within the stipulated period of time and accept the penalty clause imposed by PSGTECHS COE INDUTECH, PSG TECH as per the terms and conditions of the Tender.
- C. We undertake that during the warranty period, regular servicing / maintenance will be carried out as per the purchase order.
- D. We undertake to provide adequate training (operational routines, trouble shooting) to two technical personnel of PSGTECHS COE INDUTECH, PSG TECH in 2 phase manner on the supplied machinery / equipment and make them confident of operating the machinery / equipment independently.
- E. We agree that the final settlement will be made to us only after completion of satisfactory installation, trial and training on the said machine / instrument.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_ 2016.

**Authorized Signatory**

Signature:

Name:

Designation:

Name &amp; Address of the Company:

Seal of the Company:

**PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT**  
(TO BE OBTAINED FROM A NATIONALISED BANK IN INDIA)

Ref: \_\_\_\_\_ Date: \_\_\_\_\_ Bank Guarantee No: \_\_\_\_\_

In accordance with invitation to Tender Notice No. PSGTECHS COE INDUTECH/ FIC 5 Dated **08.12.2016** for procurement of machinery, equipments and accessories under Centre of Excellence (COE) - INDUTECH for PSGTECHS COE INDUTECH, PSG TECH, Post Box No.1611 Coimbatore - 641 004. (herein after referred to as PSGTECHS COE INDUTECH), M/s. BIDDER'S Name & Address (herein after referred to as BIDDER) wish/wishes to participate in the said tender and a Bank Guarantee for the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) valid up to **29.06.2017** is required to be submitted by the Bidder toward the Earnest Money Deposit for -----(Instrument Name)

1. We the (Banker's Name \_\_\_\_\_) (Indicate the Name of the Bank) (Hereinafter referred to as 'the Bank') at the request of the BIDDER do hereby unequivocally and unconditionally guarantee and undertake to pay during the above said period, on written request by PSGTECHS COE INDUTECH an amount not exceeding Rs. \_\_\_\_\_ to the PSGTECHS COE INDUTECH, without any reservation. The guarantee would remain valid up to **29.06.2017** and if any further extension to this is required, the same will be extended on receiving instruction from the BIDDER on whose behalf this guarantee has been issued.
2. We the bank do hereby further undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the PSGTECHS COE INDUTECH stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the PSGTECHS COE INDUTECH by reason of any breach by the said BIDDER of any of the terms or conditions or failure to perform the said bid. Any such demand made on the bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. \_\_\_\_\_ (in words).
3. We, the bank undertake to pay the PSGTECHS COE INDUTECH any money so demanded not withstanding any dispute or disputes so raised by the supplier(s) in any suit or proceeding instituted/pending before any court or Tribunal relating thereto, our liability under this agreement being absolute and unequivocal. The payment so made by us under this bond shall be a valid

discharge of our liability for payment there under and the supplier(s) shall have no claim against us for making such payment.

4. We the bank or our local branch at Coimbatore further agree that the guarantee herein contain shall remain in full force and effect during the aforesaid period i.e. **29.06.2017** and it shall continue to be so enforceable till all the dues of the PSGTECHS COE INDUTECH under by virtue of the said Bid have been fully paid and its claims satisfied or discharged or till PSGTECHS COE INDUTECH certifies that the terms and conditions of the said bid have been fully and properly carried out by the said BIDDER and accordingly discharges in guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the **29.07.2017** we shall be discharged from all liability under this guarantee thereafter.
5. We, the bank or our local branch at Coimbatore further agree that the PSGTECHS COE INDUTECH shall have the fullest liberty without our consent and without affecting in any manner our obligations here under to vary any of the terms and conditions of the said bid or to extend time of performance by the said BIDDER from time to time or to postpone for any time or from time to time any of the powers exercisable by the PSGTECHS COE INDUTECH against the said BIDDER and to forbear or enforce any of the terms and conditions relating to the said bid and we shall not be relieved from our liability by reason of any such variation, postponement or extension being granted to the said BIDDER or for any forbearance act or omission on the part of the PSGTECHS COE INDUTECH or any indulgence by the PSGTECHS COE INDUTECH to the said BIDDER or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the name, style and constitution of the Bank or the BIDDER.
7. We, the bank or our local branch at Coimbatore lastly undertake not revoke this guarantee during its currency except with the previous consent of the PSGTECHS COE INDUTECH in writing.
8. We, the bank further agree that this guarantee shall also be inviolable at our place of business at \_\_\_\_\_ in the state of \_\_\_\_\_ dated \_\_\_\_\_ day of 2016.

9. Notwithstanding anything contained herein above
- I. Our liability under this Bank guarantee shall not exceed Rs.\_\_\_\_\_-/- (Rupees\_\_\_\_\_ only)
- II. This Bank guarantee shall be valid up to **29.06.2017** and
- III. We are liable to pay the guaranteed amount or any part thereof under this Bank guarantee only and only if you serve upon us a written claim on or before **29.07.2017**.
- IV. Witness (signature, name & address) for \_\_\_\_\_ (Indicate the name of bank)
1. Power of Attorney No.\_\_\_\_\_
2. Date \_\_\_\_\_

SEAL OF BANK

PSGTECHS COE INDUTECH



**PROFORMA FOR BANK GUARANTEE FOR SECURITY DEPOSIT AND PERFORMANCE SECURITY**

To: \_\_\_\_\_ (Name of Purchaser)

WHEREAS ..... (Name of Supplier) hereinafter called "the supplier" has undertaken, in pursuance of Tender No ..... Dated ..... and purchase order No ..... Dated ..... 2016 to Supply.....( Description of Goods and Services) hereinafter called " the order".

AND WHEREAS it has been stipulated by you in the said order that the Supplier shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the order.

AND WHEREAS we have agreed to give the Supplier a Guarantee:

THEREFORE we hereby affirm that we are Guarantors and responsible to you, on behalf of the supplier, up to a total of ..... (Amount of Guarantee in words and Figures) and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the order and without cavil or argument, any sum or sums within the limit of ..... (Amount of Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the .....day of .....20... (Ref purchase order)

Signature and Seal of Guarantors

.....  
 .....  
 .....  
 Date .....20.....  
 Address .....  
 .....  
 .....

## V) CHECK LIST TO THE BIDDERS

1. Get all the clarification regarding terms and conditions during the pre bid meeting or by writing to the Director, PSGTECHS COE INDUTECH, PSG TECH, Coimbatore, prior to submission of bids.
2. The original tender document downloaded in full copy has to be submitted along with the technical details duly signed on all the pages.
3. Ensure that requirements pertaining to compliance to technical specifications as specified in 18.1 (b) of page no. 8 and compliance to the terms and conditions as in 18.1 (c) of page no. 8 have been completed in full. If any deviations are there in the specifications, the details may be given separately as Annexure.
4. The required Earnest Money Deposit (EMD) for each machine / instrument as mentioned in the Tender Document is to be enclosed. The DD / Pay Order/Bank Guarantee are to be kept in a separate cover super scribed cover "C"
5. A covering letter duly signed by the person as per the specimen given at Annexure IV of the tender document is to be enclosed.
6. Ensure that User certificates from at least two users, on their letter head stating that the performance of similar make and model supplied to them is satisfactory is enclosed.
7. Descriptive leaflet / brochure of the machinery / equipment quoted are to be enclosed along with the technical details.
8. Copy of certificate for the calibration of similar make and model of the equipment / instrument for which bid is submitted from an accredited calibration laboratory or NPL, if applicable, is enclosed.
9. The Technical and commercial details are to be submitted separately super-scribing "Cover 'A' - Technical details for \_\_\_\_\_ Machine / instrument / accessory, Cover 'B' - Commercial details for \_\_\_\_\_ machine / instrument / accessory and Cover "C" should contain EMD, Tender document fee, signed tender document and Annexure IV. All three covers are to be put together in one envelope and sealed properly, super-scribing the name of the machine / instrument / accessory.
10. Proof regarding manufacturer / authorized agent, as the case may be, is enclosed.
11. Prior to submission of bids, bidders have to ensure that the instrument / equipment quoted by them are suitable for carrying out the tests as per the national / international standards mentioned in the specification.
12. Cost details are to be given in the prescribed format only. If more than one model of machine / instrument is quoted, separate sheets may be enclosed.

**\*\*\*\*Check before submitting the tender document:**

S.No	“Cover ‘A’ Technical Bid	Cover ‘B’ Commercial Bid	Cover ‘C’
1	Compliance statement including their instrument specification and remarks.	Financial Bid	Single covering letter in their letter head stating that how many quote submitted, EMD details, tender fee details, contact details etc.
2	Detailed Technical Details with brochure / catalog and any other related technical details which includes optional accessories list with their detailed technical description without price. Bill of material must be attached without price.	Detailed Technical Details with brochure / catalog and any other related technical details which includes optional accessories list with their detailed technical description with price. Bill of material must be attached with price. Optional items costs should quoted.	Tender Document Fee
3	Start up kit (Pre installation material) list including consumables without price.	Start up kit (Pre installation material) list including consumables with price.	EMD fee
4	Delivery Schedule		Signed Tender Document including corrigendum
5	List of Customer with contact details (Name, contact no and Email ID)		
6	Performance report from the end user		
7	Calibration Certificate		
8	Pre installation material list including consumables		
9	Profile of bidder’s organization		
10	Authorization letter		
11	Annexure IV in letter head		
12	Any other details pertaining to tender		

❖ All the above 3 covers are put in one master cover and the following information to be furnished in all 4 covers.

- Tender Ref No with last date of submission.
- Instrument S.No with name
- Bidders complete postal address with contact person name and phone number.

**Note: If the bidder fails to furnish all the relevant documents / information as Mentioned in the Tender Document, the Tender will be rejected.**

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