

# JADAVPUR UNIVERSITY KOLKATA – 700 032

Dated : 24.05.2022

#### Revised

# DETAILS OF THE EMPLOYMENT NOTIFICATION NO : A2 / C / 7 / 2022 dt. 24.05.2022

The University invites applications from Indian Nationals in the prescribed form for the following posts :

# <u>Professor</u>

1.	Production Engineering	:	Three posts $(SC - 1, ST - 1, OBC-A - 1)$
2.	Civil Engineering	:	Three posts $(OBC - A - 1, OBC - B - 1, SC - 1)$
<i>3</i> .	Electrical Engineering	:	Six posts [ SC – 3, ST – 1, Differently-abled (Physically
			as well as visually) $-1$ , OBC $-A - 1$ ]
<i>4</i> .	Instrumentation & Electronics Engg.	:	One post (SC)
5.	Metallurgical & Material Engg.	:	Two posts (SC $-1$ , ST $-1$ )

#### **Qualifications** :

#### 1. Minimum Eligibility Criteria :

*a*) As per UGC regulation 2010 as amended up to date (i.e. July 11, 2016, 4<sup>th</sup> amendment) And / or

State Government Regulations (Higher Education) [vide G.O. No. 430 - Edn(u) / 1U-91/10 dt.  $3^{rd}$  May 2012]

#### And

*For Sl. No. 2*: Bachelor's Degree in Civil Engineering, Master's Degree from Civil Engineering Department with specialization in Structural Engineering.

*For Sl. No. 3*: BE / B. Tech. in Electrical Engineering / Electrical & Electronics Engineering / Electrical & Instrumentation Engineering.

## 2. <u>Desirable Qualifications :</u>

## *For Sl. No. 1* : <u>*For OBC – A*</u>

- *a*) Adequate experiences of teaching at the Post Graduate level of Engineering / Technology in a University / Institution.
- b) Good academic record with First Class at M.E. or equivalent Exam.
- *c*) Adequate experiences of guiding research at the PG level of Production Engineering Department.
- *d*) Research publication in published conference / Seminar Proceedings / Journals / Transactions etc.
- *e*) Membership of Learned Societies.

# For SC & ST

- *a*) Ten (10) years' experience of teaching in Engineering in a University / Institution of higher learning of which at least 5 years must be at the Master's Degree level in Mechanical / Production Engineering or Ten (10) years' experience in Industry in responsible positions contribution to knowledge, research and development in the area of Production Engineering.
- **b**) Doctorate degree in Engineering of related fields of Production Engineering with 1<sup>st</sup> Class at the Master's Degree level in Engineering / Technology.
- c) Experience of guiding research at the Post Graduate and Doctoral level of Production Engineering / Coordinating Research Project / Conducting consultancy work and setting up of laboratories in any of the related area under specialization.
- *d*) Research publication in published proceeding / journals / transactions.
- *e*) Membership of Learned Societies.
- *For Sl. No. 2*: i) Adequate teaching / equivalent industrial / equivalent R & D experience in the relevant field of specialization.
  - ii) Knowledge in at least any one of the following areas.
  - *a*) Finite element analysis of plates and shells.
  - *b*) Structural dynamics application in structural engineering.
  - *c*) Concrete Technology
  - *d*) Earthquake Engineering / Earthquake resistant design of structures.
  - e) Wind engineering / Wind resistant design of structures
  - f) Steel / RCC design
  - g) Numerical analysis in structural engineering

#### For Sl. No. 3 : <u>Control Systems Specialization</u>

- a) At least ten years' experience in teaching Classical and Advanced Control Systems covering but not limited to domains like Discrete-time Control, Non-Linear Control, Adaptive Control, Robust Control, Stochastic Control, Model Predictive Control, Periodic Control, Intelligent Control, Modelling and Systems Identification, Estimation, Process Control Systems, Robotics, Mechatronics, etc. at the Undergraduate and Post-Graduate levels.
- *b*) Publications of research papers in SCI or high quality peer reviewed journals, Books and Research Monographs in the relevant domains.
- c) Areas of research experience should include one or more domains like (but not limited to) Classical and Advanced Control Theory and Practices; Embedded / Real-Time Systems; Classical and Stochastic Optimization techniques; Computer Control and Communication Engineering; Mechatronics and Robotics; Control and Guidance; Intelligent Control Systems; Distributed Control Systems.
- *d*) Experience in supervising Masters and Ph.D. level Theses related to the above mentioned domains.
- e) Experience in Laboratory development in Control Systems and related areas.
- f) Technical participation in academic and industrial research projects.

## **Electrical Machines & Drives Specialization**

- a) Adequate experiences of teaching UG and PG students and evidence of having guided PG and Ph.D. students in a University / Institution and / or supervising R & D Projects in the area of Electromagnetic Field Computation / Advanced analysis of Electrical Machines / Electrical Machines Design / Condition monitoring and fault analysis of Electrical Machines / Power Electronics and Drives.
- *b*) Experience in Laboratory development in related areas.
- *c)* Publication work such as Research papers in pee-reviewed Journals, Patents filed / obtained, Books and /or Technical Reports.

#### Measurements & Instrumentation Specialization

- *a*) Experience in successfully supervising at least two doctoral candidates in the domain of Sensors and Transducers, Instrumentation or signal / image processing.
- *b*) Proven record of academic and professional excellence including a significant number or publications in SCI journals with high impact factors, winning prestigious national / international awards, fellowships.
- *c*) Experience in laboratory and / or hardware development related to Sensors and Transducers, Instrumentation.
- *d*) Demonstrated ability in conducting high valued extramural research project related to Measurements and Instrumentation.
- *e)* Proven record of granted intellectual property right in the field of Measurements and Instrumentation.
- f) Demonstrated ability in carrying out academia industry collaboration.
- g) Experiences in managing inter institutional partnership.

#### Power Systems Specialisation

- *a*) At least ten years' experience in teaching Power System Subjects including application of Power Electronics in Power System at the undergraduate and post graduate levels.
- b) At least ten years' experience in Research in Power System areas including application of Power Electronics in Power System. The research experience must be substantiated by publications of research paper in SCI or high quality peer reviewed journals, Books and Research Monographs in the relevant area.
- c) Experience in supervising Ph.D. level Theses related to the above mentioned area.
- d) Experience in development of Power System related Laboratories.
- e) Technical participation in academic and industrial research projects.
- *For Sl. No. 5*: Ph.D. in Engineering discipline by Four Year Bachelor Degree in Metallurgical / Materials Engineering.

#### 3. <u>Specialization :</u>

## For Sl. No. 1: For OBC-A

Non-traditional Machining / Robotics / Tribology / Terotechnology / CNC an Adaptive Control of Machine Tools / Flexible Manufacturing Systems / Automation and Control / Operation Management / Foundry Technology / Ergonomics / Metrology, Metal Forming Simulation / Enterprise Resource Planning and Supply chain Management / Project Management.

For Sl. No. 2:	Structural Engineering		
For Sl. No. 3:	<i>o. 3:</i> Control Systems / Electrical Machines & Drives / Measurements & Instrumentation		
	Power Systems.		
For Sl. No. 4:	a) Process Instrumentation		
	a) Process Control		
	<i>b</i> ) Signal Processing		
	c) Electronic Circuits and Systems.		
For Sl. No. 5:	Open (any field in the area of Metallurgical / Materials Engineering.		

Age : As per State Government rules (vide G.O. No. 1081 Edn(u) / 1U-91/10 dt. 15.12.2021.

# *Pay* : Rs. 1,44,200/- at Academic Level – 14 [Rs. 1,44,200 – 2,18,200]

# Associate Professor

1.	Production Engineering	:	Two posts $[SC - 1, ST - 1,$
2.	Electrical Engineering	:	Seven posts [ $SC - 3$ , $ST - 2$ , Differently-abled (Physically
			as well as visually) $-1$ , OBC $-B - 1$ ]
<i>3</i> .	Metallurgical & Material Engg.	:	Two posts ( $ST - 1$ , OBC-A – 1)

#### <u> Qualifications :</u>

#### 1. Minimum Eligibility Criteria :

*a*) As per UGC regulation 2010 as amended up to date (i.e. July 11, 2016, 4<sup>th</sup> amendment) And / or

State Government Regulations (Higher Education) [vide G.O. No. 430 - Edn(u) / 1U-91/10 dt.  $3^{rd}$  May, 2012

#### And

*For Sl. No. 2*: BE / B. Tech. in Electrical Engineering / Electrical & Electronics Engineering / Electrical & Instrumentation Engineering.

#### 2. <u>Desirable Qualifications :</u>

- *For Sl. No. 1*: *a*) adequate experience of teaching at the post graduate level of Engineering / Teaching in a University / Institutions.
  - *b*) Good academic record with first class at M.E. or equivalent examination.
  - *c)* Adequate experience of guiding research t the post graduate level of Production Engineering.
  - *d*) Research publications in published Conference or Seminar proceeding / Journals / transactions.
  - e) Membership of learned societies.

# For Sl. No. 2 : Control Systems Specialization

- a) At least five years' experience in teaching Classical and Advanced Control Systems covering but not limited to domains like Discrete-time Control, Non-Linear Control, Adaptive Control, Robust Control, Stochastic Control, Model Predictive Control, Periodic Control, Intelligent Control, Modelling and Systems Identification, Estimation, Process Control Systems, Robotics, Mechatronics, etc. at the Undergraduate and Post-Graduate levels.
- *b*) For applicants from Industry, at least five years' experience in research & development activities in the domain of Control Systems.
- *c*) Publications of research papers in SCI or high quality peer reviewed journals in the relevant domains.
- d) Areas of research experience should include one or more domains like (but not limited to) Classical and Advanced Control Theory and Practices; Embedded / Real-Time Systems; Classical and Stochastic Optimization techniques; Computer Control and Communication Engineering; Mechatronics and Robotics; Control and Guidance; Intelligent Control Systems; Distributed Control Systems.
- *e*) Experience in supervising Masters level Theses related to the above mentioned domains.
- f) Experience in Laboratory development in Control Systems and related areas.
- g) Technical participation in academic and industrial research projects.

## **Electrical Machines & Drives Specialization**

- a) Adequate experiences of teaching UG and PG students in the area of Electrical Machines / Electrical Machines Modelling and Analysis / Power Electronics and Drives / Special Electrical machines & Drives / Computer Programming.
- *b*) Publication work such as research paper in peer-reviewed Journals, patents filed / obtained, books and / or technical reports.
- c) Experience of guiding Post Graduate / Research students or Supervising R & D Projects in Industry in area or Electrical Machines and Drives.
- *d*) Experience in Laboratory development in related areas.

## Measurements & Instrumentation Specialization

- *a*) Experience in successfully supervising doctoral candidates in the domain of Sensors and Transducers, Instrumentation or signal / image processing.
- b) Proven record of academic and professional excellence including publications in SCI journals with high impact factors, winning prestigious national / international awards, fellowships.
- *c*) Proven record of establishing Instrumentation / signal Processing based research hardware.
- *d*) Demonstrated ability in conducting sponsored research projects.
- *e*) Proven record of granted intellectual property right.

## Power Systems Specialisation

- *a*) At least five years' teaching experience in Power System Subjects including Power Electronics application in Power System at the undergraduate and post graduate levels.
- *b*) For applicants form industry, at least five years' experience in research & development activities in the area of Power Systems.

- *c)* At least five years' experience in Research in Power System areas including application of Power Electronics in Power System. The research experience must be substantiated by publications of research paper in SCI or high quality peer reviewed journals in the relevant area.
- *d*) Experience in supervising Masters and Doctoral level Theses related to the Power System area.
- e) Experience in Laboratory development of Power System and related areas.
- f) Technical participation in academic and industrial research projects.

#### High Voltage Engineering Specialization

- *a*) Experience in successfully supervising doctoral candidate.
- *b*) Proven record of establishing high voltage research hardware.
- c) Demonstrated ability in conducting sponsored research project.
- *d*) Proven record of granted intellectual property right.

## Illumination Engineering Specialization

- a) Adequate experiences of teaching UG and PG students and evidence of having guided PG and/or Ph.D. students in a University / Institution and/or supervising R & D Projects in the area of Illumination Engineering.
- *b*) Experience in Laboratory development in Illumination Engineering areas.
- c) Published work such as Research Papers in peer-reviewed Journals, Patents filed/obtained, Book and/or Technical Reports in Illumination Engineering areas.
- *For Sl. No. 3:* Ph.D. in Engineering / Technology Processed by Four year BE / B.Tech. Degree in Metallurgical and or Material Engineering and 8 (eight) years' experience in Teaching / Research and or Industry.

## 3. <u>Specialization :</u>

- *For Sl. No. 1:* Non-traditional Machining / Robotics / Tribology / Terotechnology / CNC an Adaptive Control of Machine Tools / Flexible Manufacturing Systems / Operation Management / Foundry Technology / Ergonomics / Metrology, Metal Forming Simulation / Enterprise Resource Planning and Supply chain Management / Project Management.
- *For Sl. No. 2. :* Control Systems /Electrical Machines & Drives /Measurements & Instrumentation/ Power Systems / High Voltage Engineering / Illumination Engineering.
- *For Sl. No. 3*: *a*) Extractive Metallurgy *b*) Physical Metallurgy.

Age: As per State Government rules (vide G.O. No. 1081 Edn(u) / 1U-91/10 dt. 15.12.2021.

## Pay : Rs. 1,31,400/- at Academic Level 13A [Rs. 1,31,400 – 2, 17,100]

# Assistant Professor

- *1.* Civil Engineering
- 2. Electrical Engineering : Five posts [SC 1, Differently-abled (Physically

: One post (UR)

well as visually) -1, OBC -B - 1, UR -2]

as

- 3. Instrumentation & Electronics Engg. : One post (UR)
- 4. Metallurgical & Material Engineering : One post (SC)

# **<u>Qualifications</u> :**

- 1. Minimum Eligibility Criteria :
  - *a*) As per UGC regulation 2010 as amended up to date (i.e. July 11, 2016, 4<sup>th</sup> amendment) And / or

State Government Regulations (Higher Education) [vide G.O. No. 142 - Edn(u) / 1U-91/10 dt.  $28^{th}$  February, 2011

#### And

**For Sl. No. 2 :** BE / B. Tech. in Electrical Engineering / Electrical & Electronics Engineering / Electrical & Instrumentation Engineering.

For Sl. No. 4: ME / M. Tech. in Metallurgical & Material Engineering.

2. <u>Desirable Qualifications :</u>

*For Sl. No. 1*: *a*) Graduate in Civil Engineering

- b) Teaching / Industrial / R & D experience in the relevant filed of specialization.
- *c*) Knowledge in at least any one of the following arears :
- i) Finite element analysis of plates and shells
- ii) Structural dynamics application in structural engineering.
- ii) Concrete Technology
- iii) Earthquake Engineering / Earthquake resistant design of structures
- iv) Wind Engineering / Wind resistant design of Structures
- v) Steel / RCC design
- vi) Structural reliability and structural optimization.

# For Sl. No. 2 : Control Systems Specialization

- a) Research experience of at least three years' in relevant domains like (but not limited to) Classic and Advanced Control Theory and Practices; Embedded / Real-Time Systems: Classical and Stochastic Optimization techniques: Computer Control and Communication Engineering: Mechatronics and Robotics; Control and Guidance; Intelligent Control Systems, Distributed Control Systems.
- *b*) For applicants from Industry, at least two years' experience in research & development activities in the domain of Control Systems.
- *c*) Publications of research papers in SCI or high quality peer reviewed journals in the relevant domains.
- *d*) Interest in Laboratory development in Control Systems and related areas with necessary Hardware and Software skills.

#### **Electrical Machines & Drives Specialization**

- *a*) Experience in teaching / research / industry in the related field.
- b) Publications of research papers in peer-reviewed Journals.
- c) Areas of research experience includes Electrical Machines and Drives.
- d) Experience in Laboratory development for related areas.

# Measurements & Instrumentation Specialization

- *a*) Proven record of research in the field of Measurements and Instrumentation including Signal and Image processing.
- b) Experience in developing setup for transducer based measurement systems / vision based measurements / mobile robot based systems.

# Power Systems Specialisation

- *a*) Experience in teaching / research / industry in the related field with exposure of application of computer and communication in Power system.
- b) Publications of research papers in peer-reviewed Journals.
- c) Aras of Research Experience include Electrical Power Systems only.
- *d*) Experience in Laboratory development for related areas.

# High Voltage Engineering Specialization

- a) Ph.D. degree awarded.
- b) Proven record of research in the field of Partial discharge localization, remote field monitoring of high voltage insulators, high voltage surge protective equipment, measurement of Charge trapping and de-trapping in dielectrics.
- *c)* Demonstrated abilities in working with Nano-sinusoidal high voltage source, setup for measuring relaxation current in Nano-ampere range, system for accelerated measurement of dielectric response.

## **Illumination Engineering Specialization**

- *a*) Experience in teaching / research / industry in the field of Illumination Engineering.
- *b*) Publications of research papers in peer-reviewed Journals.
- c) Areas of Research Experience includes Illumination Engineering.
- *d*) Experience in Laboratory development in area of Illumination Engineering.
- e) First Class / division from School Leaving Examination onwards.
- *f*) Ph.D. / PG Thesis guidance in area of Illumination Engineering.
- *For Sl. No. 3*: *a*) Teaching, Research, Industrial and/or professional experience in a reputed organization.
  - **b**) Papers published in refereed in refereed journals and/or presented at conference.
  - *c*) Basic degree in Instrumentation and Electronics Engg. or Electronics and Communication Engg. or Instrumentation and Control Engg.

*For Sl. No. 4*: Any branch in Metallurgical / Material Engineering discipline.

3. <u>Specialization :</u>

*For Sl. No. 1*: Structural Engineering.

<u>For Sl. No. 2</u>: Control Systems / Electrical Machines & Drives / Measurements & Instrumentation / Power Systems / High Voltage Engineering / Illumination Engineering.

*For Sl. No. 3*: *a)* Process Instrumentation.

- **b**) Process Control
- *c*) Power Electronics
- *d*) Electronics Circuits and Systems
- e) Signal Processing

*Age* : As per State Government rules (vide G.O. No. 1081 Edn(u) / 1U-91/10 dt. 15.12.2021.

#### *Pay* : Rs. 57,700/- at Academic Level 10 [Rs. 57,700 – 1,82,700]

# DEADLINE FOR SUBMITTING APPLICATION IS 08.06.2022 (payment link closes at 12 noon) FILLING UP / SUBMISSION OF APPLICATION FORM AND OTHER RELATED INSTRUCTIOS :

- 1. Blank application form in 'pdf' format is available at the JU website :
- 2. Download the application form for filling up.
- **3.** Please pay the application fee of Rs. 500/- (Rs. 250/- for SC/ST only) following the payment link given [US \$ 50.00 (US \$ 25.00 for SC/ST only)] or equivalent Rupee for Indian citizen staying outside in D.D. drawn in favour of **"The Registrar, Jadavpur University"** payable at Kolkata) as indicated in the JU website (<u>www.jaduniv.edu.in</u>). Follow instructions for making payment and take print out of the receipt of payment / challan obtained. For making online payments, (a) Net banking, (b) Debit / Credit / Rupay card, (c) Challan (for making cash payment at SBI branches) options will be available. Use anyone of the options for making payment.
- 4. Fill up the blank application form and send the complete application form (one original and seven photocopies) along with attested photocopies of all certificates including NOC if applicable and testimonials, and a copy the receipt of payment / challan, to the 'Registrar, Jadavpur University, Aurobindo Bhavan, 188, Raja S.C. Mallick Road, Jadavpur, Kolkata 700 032 by Registered post / Speed post or in person to the 'Information Office' on all working days within 11.00 a.m. to 4.00 p.m.
- 5. Please super scribe the envelop with the name of the post applied for and the Advertisement No.
- 6. Those who are already in service should apply through proper channel.
- 7. Canvassing in any form will disqualify a candidate.
- 8. Mere application does not guarantee a call for interview as the method of screening will be applied as per the selection criteria of the University. Selection will be made as per university selection procedure. University reserves the right for selection.

#### 9. All qualifications, experience will be recognized till the last date of submission of application.

- *10.* Please follow JU website for any update / notification time to time regarding above selections.
- *11.* University will not be liable for any kind of postal delay.
- *12.* Incomplete applications will be rejected without any intimation.
- 13. Apply separately for more than one post paying fees accordingly.

- 14. All the tables for API calculation to be filled by the applicant as per UGC and State Govt. norms [vide UGC regulation 2010 as amended up to date (i.e. July 11, 2016, 4<sup>th</sup> amendment) and or State Government Regulations (Higher Education) (Vide G.O. No. 430-Edn(u) / 1U-91/10 dt. 3<sup>rd</sup> May 2012 and G.O. No. 142-Edn(u) / 1U-91/10 dt. 28<sup>th</sup> February, 2011).]
- 15. Details of the method of Screening and Selection as approved will be followed. Research publication will be considered as per the journal list published in the UGC/ University website.
- 16. Candidates who had previous applied for the posts of Associate Professor and Assistant Professor in Electrical Engineering against the Advertisement No. A2/C/4/2018 dt. 23.08.2018, need to apply again against this advertisement without application fees (Submit the document of application fees against the Advertisement No. A2/C/4/2018 dt. 23.08.2018).

Registrar

Personnel – S.K. / T.O.