

Shortlisting criteria for Ph.D. Programme in Energy Studies (ESZ) for Academic Session 2019-2020 (2nd Semester):

- a) Qualifying degree as M.Tech./M.S. (R) (Electrical, Mechanical, Chemical, Energy, Physics, Nano Science, Materials)

<i>Category</i>	<i>Minimum percentage/CGPA</i>
-----------------	--------------------------------

General/ GEN-EWS/OBC	≥ 70 % or 7.0/10
----------------------	------------------

SC/ST/PH	≥ 65 % or 6.5 /10
----------	-------------------

- b) Qualifying degree as M.Sc. (Physics, Nano -Science, Materials)

<i>Category</i>	<i>Minimum percentage/CGPA</i>
-----------------	--------------------------------

General/GEN-EWS /OBC	≥ 65 % or 6.5/10
----------------------	------------------

SC/ST/PH	≥ 60 % or 6.0 /10
----------	-------------------

The candidate must have a valid Gate Score as follows

<i>Category</i>	<i>Minimum GATE Score</i>
-----------------	---------------------------

General/GEN-EWS/OBC	≥ 500
---------------------	-------

SC/ST/PH	≥ 300
----------	-------

Or must have qualified for fellowship under CSIR/UGC NET/ICAR/ICMR/ DST/INSPIRE for full time PhD.

- c) Qualifying degree as B.Tech.(Electrical/Mechanical/Chemical/Energy/Engineering Physics)

<i>Category</i>	<i>Minimum percentage/CGPA</i>
-----------------	--------------------------------

General/GEN-EWS/OBC	≥ 80 % or 8.0/10
---------------------	------------------

SC/ST/PH	≥ 75 % or 7.5/10
----------	------------------

With valid Gate score as follows for Full Time Ph.D.

<i>Category</i>	<i>Minimum GATE Score</i>
-----------------	---------------------------

General/GEN-EWS/OBC	≥ 700
---------------------	-------

SC/ST/PH	≥ 600
----------	-------

Note:

- (i) For part-time candidates with M.Tech./M.S.(R)/M.Sc as qualifying degree, minimum two years of experience as on 27th Dec., 2019 is required along with the above- mentioned requirements in (a) or (b).
- (ii) For part-time candidates with B.Tech. as qualifying degree, minimum five years of experience as on 27th Dec.,2019 is required along with the above-mentioned requirements in (c).
- (iii) Requirement of qualification in GATE / National Exam is waived for the following categories of applicants:
 - (a) Currently registered students in Centrally Funded Technical Institutes (CFTIs) pursuing B.Tech./B.E./ Integrated M. Tech/ Integrated M. Sc. programmes, who have completed 6 semesters or more, and have CGPA of 8.000 or above (on a 10 point scale). Such students must obtain a CGPA of 8.000 or above at the time of graduation, and before they formally register for the Ph.D. programme (80% aggregate marks, if marks are the primary mode of evaluation);
 - (b) Graduates of CFTIs (in the programmes marked under (i)) with a final graduation CGPA of more than 8.000 (80% aggregate marks, if marks is the primary mode of evaluation);
 - (c) M.A or M.Sc. graduates from IITs with CGPA 8.000 or above.
 - (d) For part time candidates with M.Sc. or B. Tech. degree and satisfying the criteria as mentioned in (i) and (ii) above.
- (iv) The applications belonging to disciplines other than those mentioned above have not been considered by the CRC.
- (v) The written test and/or interviews for admission in Ph.D. program of CES for 2nd semester 2019-2020 will be held on **04.12.2019 (Wednesday)** and **05.12.2019 (Thursday)**. The candidates are requested to report at **Block VI LT-2, IIT Delhi**, at 8.00 AM.
- (vi) If any candidate is fulfilling the above mentioned criteria but he/she has not been called for written test - interview, he/she may contact CES office through phone (011-26591251) or email (hodces@admin.iitd.ac.in) for any clarification before the written test date (04/12/2019).

Centre for Energy Studies Indian Institute of Technology Delhi

**Sub: Written Exam and Interview for Ph.D. in Centre for Energy Studies (ESZ) for the
Session 2019-2020 (2nd Semester)**

Broad Topics to be covered for written exam:

- 1. Energy:** Fundamentals of Energy, Conventional Sources of Energy, Renewable Energy, Energy - Environment Interaction, Climate Change
- 2. Subject Topics (questions pertaining to any one section to be answered):**
 - a. Mechanical Engineering / Chemical Engineering / Energy Engineering: Basics of Fluid Mechanics, Heat Transfer and Thermodynamics
 - b. Electrical Engineering: Basics of Electrical Engineering, Electrical Machines, Power Systems and Power Electronics
 - c. Engineering Physics / Physics: Basics of Classical and Quantum Mechanics, Electrodynamics, Semiconductors, Nuclear and Modern Physics, Electrical & Electronics circuits, Statistical Physics and Thermodynamics.

Exams:

Exam Reporting Centre: VI-LT-2), IIT Delhi

Examination Date: 04/12/2019 (Wednesday)

Examination Time: 9:00 hrs to 10:30 hrs

Interviews:

The candidates who will successfully qualify the written exam will have to present themselves before a committee for an interview, based on which the final selection would be made.

Interview Reporting Centre: Block V, Room 235 (V-235), Centre for Energy Studies, Indian Institute of Technology Delhi.

Interview Date: 04/12/2019 & 05/12/2019 (Exact date and timings of Interview will be announced outside Room V-235 (Head, CES Office) while announcing the results of the written exam on 04.12.2019).

**Centre for Energy Studies
Indian Institute of Technology Delhi**

18.11.2019

Dear Candidate,

**Sub: Written Exam and Interview for Ph.D. in Centre for Energy Studies (ESZ) for the
Session 2019-2020 (2nd Semester)**

Thank you for your interest in our Ph.D. Programme in Centre for Energy Studies (ESZ). With reference to your application, you are invited to appear for a written examination and / or interview. Details for the same are as follows:

Date	Reporting Time	Venue	Special Remarks
04/12/2019 (Monday)	08:00 AM	VI-LT-2 IIT Delhi	Please report on time for the Written Test

The interviews would be conducted on 04/12/2019 and 05/12/2019 (Exact date and timings of Interview will be announced outside Room V-235 (Head, CES Office) while announcing the results of the written exam on 04.12.2019).

This call for interview is subject to your satisfying the eligibility and shortlisting criteria given on the first page. Please note that you are required to calculate the percentage of aggregate marks as per details given in IITD brochure. If your aggregate qualifying degree marks, as per the IIT Delhi norms, are not meeting our shortlisting criteria, you will not be allowed to appear for the written examination.

1. The candidate should bring with him / her the following documents in original:
 - i) The interview call letter
 - ii) Original degree and mark certificates of all qualifying examinations
 - iii) Original Score Card of GATE / CEED / Other National Level Examination (if applicable)
 - iv) Original OBC (Non-creamy Layer) / SC / ST / PH certificate (if applicable) as per the format given in http://www.ncbc.nic.in/Writereaddata/36036_2_2013-Estt-Res_30052014635430196013010641.pdf.
 - v) Original Sponsorship and No-objection Certificate (for Part-Time / Sponsored Candidates) (exactly in the wordings as given in the information brochure on the PG admission website, page 14).
 - vi) An Income and Asset Certificate issued by a Competent Authority (Revenue Officer) not below the rank of Tehsildar in the prescribed format (<http://ces.iitd.ac.in>). Proof of candidate's claim for the benefit of reservation under **Economically Weaker Sections (EWSs)** can only be availed upon production of the Income and Asset Certificate in original.
 - vi) Candidates who are in service will not be allowed to appear for interview in the absence of Sponsorship and No-objection Certificate from his/her employer.
 - viii) **Self-attested copies of all above mentioned original documents need to be submitted at the time of written exam and / or interview.**
 - xi) An identity proof (Aadhar card/Pan card/Driving License etc.) with a photocopy of the same.
2. The candidate should also bring his/her Bachelors' and /or Masters' project dissertation to be presented at the time of interview.
3. No TA is admissible to the candidates appearing for test/interview for admission to Ph.D. programme.
4. Fee once paid for a particular programme will not be adjusted/ transferred if the student gets selected subsequently and joins in another programme. He/She will have to pay the fee for the new

programme he/she joins and apply for refund of fee earlier paid for a programme he/she wishes to withdraw. The refund of fee will be made as per rules of the Institute.

5. A list of provisionally selected candidates will be displayed on the Centre for Energy Studies Notice Boards and subsequently on the IIT website within a week after the interviews are over. No candidate would be intimated by post or other modes of communication. If selected, a candidate would be given a week's time to deposit the fees. The details of fees payable can be found on the information brochure on the PG admission website, page 15).
6. Candidates coming for the interview would be provided accommodation in the student hostels on sharing basis on payment of **Rs. 400/- per day** for boarding and lodging. No bedding would be available and candidates are required to make their own arrangement for bedding. However, the Caretaker of concerned hostel will help to arrange bedding @ 50/-(per set) per day. **Male students would be accommodated in Aravali and Female students in Himadri Hostel** on production of a Demand draft for the amount drawn in favour of “**Deans Discretionary Fund, IIT Delhi.....(hostel name) Hostel**”.
7. For any clarifications, please call 011-2659-1251 or e-mail: hodces@admin.iitd.ac.in with subject line "Regarding ESZ admissions" Head CES.

Head, CES

Government of _____
(Name & Address of the authority issuing the certificate)

**INCOME & ASSEST CERTIFICATE TO BE PRODUCED BY
ECONOMICALLY WEAKER SECTIONS**

Certificate No _____

Date: _____

VALID FOR THE YEAR _____

This is to certify that Shri/Smt./Kumari _____ son/daughter/wife of _____ permanent resident of _____, Village/Street _____ Post Office _____ District _____ in the State/Union Territory _____ Pin Code _____ whose photograph is attested below belongs to Economically Weaker Sections, since the gross annual income* of his/her Ifamily** is below Rs. 8 lakh (Rupees Eight Lakh only) for the financial year _____. His/her family does not own or possess any of the following assets***:

- I. 5 acres of agricultural land and above;
 - II. Residential flat of 1000 sq. ft. and above;
 - III. Residential plot of 100 sq. yards and above in notified municipalities;
 - IV. Residential plot of 200 sq. yards and above in. areas other than the notified municipalities.
2. Shri/Smt./Kumari _____ belongs to the _____ caste which is not recognized as a Scheduled Caste, Scheduled Tribe and Other Backward Classes (Central List)

Signature with seal of Office _____

Name _____

Designation _____

Recent
Passport
size attested
photograph
of the
applicant

***Note 1:** Income covered all sources i.e. salary, agriculture, business, profession, etc.

****Note 2:** The term 'Family' for this purpose include the person, who seeks benefit of reservation, his/her parents and siblings below the age of 18 years as also his/her spouse and children below the age of 18 years.

*****Note 3:** The property held by a 'Family' in different locations or different places/cities have been clubbed while applying the land or property holding test to determine EWS status.

OBC Reservation: Information and Certificate Template

Based on the Office Memorandum No. 1-1/2005-U.1.A/847 dated 20.04.08 issued by MHRD, Government of India, 27% seats are reserved for non-creamy layer OBC candidates in the admission to the PG programmes. The candidates who have applied to be considered for seats reserved for non-creamy layer OBC, should bring the OBC non-creamy layer certificate at the time of the interview.

The conditions for the same are as follows:-

- (i) The reservation of seats for socially and educationally backward class/OBCs is only for those listed as OBC in both central and state lists. Updated list of state-wise OBCs who are eligible for availing benefit of admission is available on the website <http://ncbc.nic.in/Centrallistifobc.html>
- (ii) The creamy layer among the OBCs have been excluded from the benefit of reservation. The definition of creamy layer is available at the website: <http://ncbc.nic.in/Creamylayer.html>
- (iii) OBC Non-creamy layer certificate template follows:

OBC-NCL Certificate Format

FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES (NCL)
APPLYING FOR ADMISSION TO CENTRAL EDUCATIONAL INSTITUTIONS (CEIs), UNDER
THE GOVERNMENT OF INDIA

This is to certify that Shri/Smt./Kum* _____ Son/
Daughter* of Shri/Smt.* _____ of Village/
Town* _____ District/Division* _____
in the State/Union Territory _____ belongs to the
_____ community that is recognized as a backward
class under Government of India**, Ministry of Social Justice and Empowerment's
Resolution No. _____ dated _____ ***

Shri/Smt./Kum. _____ and/or _____
his/her family ordinarily reside(s) in the _____
District/Division of the _____ State/Union Territory. This is
also to certify that he/she does NOT belong to the persons/sections (Creamy Layer) mentioned
in Column 3 of the Schedule to the Government of India, Department of Personnel & Training
O.M. No. 36012/22/93 Estt. (SCT) dated 08/09/93 which is modified vide OM No.
36033/3/2004 Estt.(Res.) dated 09/03/2004, further modified vide OM No. 36033/3/2004 Estt.
(Res.) dated 14/10/2008, again further modified vide OM No.36036/2/2013 Estt (Res) dtd.
30/05/2014.

District Magistrate /
Deputy Commissioner /
Any other Competent Authority

Dated:

Seal

1. Please delete the word(s) which are not applicable.
 2. As listed in the **Annexure** (for FORM OBC NCL)
- *** The authority issuing the certificate needs to mention the details of Resolution of Government of India, in which the caste of the candidate is mentioned as OBC.

NOTE:

- (a) The term 'Ordinarily resides' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
- (b) The authorities competent to issue Caste Certificates are indicated below:
 - (i) District Magistrate/ Additional Magistrate/ Collector/ Deputy Commissioner/ Additional Deputy Commissioner/ Deputy Collector/ Ist Class Stipendiary Magistrate/ Sub Divisional magistrate/ Taluka Magistrate/ Executive Magistrate/ Extra Assistant Commissioner (not below the rank of Ist Class Stipendiary Magistrate).
 - (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate.
 - (iii) Revenue Officer not below the rank of Tehsildar' and
 - (iv) Sub Divisional Officer of the area where the candidate and/or his family resides

ANNEXURE for FORM OBC NCL

Sl. No.	Resolution No.	Date of Notification
1	No.12011/68/93 BCC(C)	13.09.1993
2	No.12011/9/94 BCC	19.10.1994
3	No.12011/7/95 BCC	24.05.1995
4	No.12011/96/94 BCC	09.03.1996
5	No.12011/44/96 BCC	11.12.1996
6	No.12011/13/97 BCC	03.12.1997
7	No.12011/99/94 BCC	11.12.1997
8	No.12011/68/98 BCC	27.10.1999
9	No.12011/88/98-BCC	06.12.1999
10	No.12011/36/99-BCC	04.04.2000
11	No.12011/44/99-BCC	21.09.2000
12	No.12015/9/2000-BCC	06.09.2001
13	No.12011/1/2001-BCC	19.06.2003
14	No.12011/4/2002-BCC	13.01.2004
15	No.12011/9/2004-BCC	16.01.2006
16	No.12011/14/2004-BCC	12.03.2007
17	No.12011/16/2007-BCC	12.10.2007
18	No.12018/6/2005-BCC	30.07.2010
19	No. 12015/2/2007-BCC	18.08.2010
20	No.12015/15/2008-BCC	16.06.2011
21	No.12015/13/2010-BC-II	08.12.2011
22	No.12015/5/2011-BC-II	17.02.2014