ANNEXURE -I

CHARACTER/BONAFIDE CERTIFICATE (From the institution last attended)

Certified that	Mr./Km./Smt./			son/daughter of
Shri		has been a bonafide	e student of this School	ol/College during the
period	. He/She	appeared in the		Examination of
the	(University	/Board) held in		under Roll No.
	and *passed	obtaining		marks out of
	marks or	* failed/* placed	under compartment	in the subject of
It is to further c	ertified that Mr./Ms(good/bad) moral ch			bears
institution was found		(satis	factory/unsatisfactory)	
No. :			•	re of Principal fice seal)

^{*} Strike out whichever is not applicable.

ANNEXURE - II

HARYANA RESIDENT CERTIFICATE (for bonafide residents of Haryana only)

Certified that Mr./Km./Smt./		son/daughter	of
Shri		resident	of
(Complete Address) since			ious
Engineering/Technical Courses in Haryana, is a bonafi	de resident of Haryana Sta	te in terms of C	hief
Secretary, Haryana letter no. 62/17/95-6 GS1 dated 03.10.	1996, letter no. 62/32/2000-60	GSI dated 23.05.20)03,
letter no. 62/27/2003/6 GS1 dated 29.07.2003, letter no. 2	22/28/2003-3GS-III dated 30.	01.2004 under cla	iuse
·			
No	Signature of the issuing	g authority	
Date:	Name		
Place:	Designation		
	(with office seal)		

Note: i) The competent authorities to issue Haryana Resident Certificate will be as per State Govt. Letter no. 22/28/2003-3 GS III dated 30.01.2004. ii) The candidates, who have passed their qualifying examinations from the Universities/Board/Institutes located in Haryana are not required to produce Certificate of Haryana Resident. iii) The certificate must have been issued on or after 31.01.2005.

ANNEXURE – III

CERTIFICATE FROM THE EMPLOYER

Certified that Mr./Km./Smt./	son/daughter/wife of
Shri	is serving as a Regular
employee of	
	Presently, he/she is posted as
	in the Department of
at	(place of posting). If he
/ she is got admission in Ph. D Course at DCRUST	, Murthal then he / she shall be relieved from his / her
service for the duration as mentioned in Ph. D Ordina	nce applicable to him.
No	Signature of the issuing authority
Date:	Name
Place:	Designation
	(with office seal)

ANNEXURE – IV

SCHEDULED CASTE CERTIFICATE

Certified that Mr./Km./Smt./	son/daughter of
Shri	
(Complete Address) belongs to	
Caste by the Haryana Government. This certificate is being	g issued to him/her according to the Haryana Govt.
Circular letter no. 333(1)-97, dated 25.02.1997, No. 22/28	/2003-3 GS III dated 30.01.2004 and letter dated
21.06.2004.	
No	Signature of the issuing authority
Date:	Name
Place:	Designation
	(with office seal)

ANNEXURE – V

BACKWARD CLASS CERTIFICATE BLOCK 'A' OR 'B'

Certified that Mr./Km./Smt./	son/daughter of
Shri	
(Complete Address) belongs to	
Class by the Haryana Government and is placed in Bloc	k (mention Block A
or B). Further, certified that he/she is not covered in C	Creamy Layer (Reference from the Chief Secretary,
Haryana letter no. 1170-SWL1-95 dated 07.06.1995 &	& No. 62/17/95-6 GSI dated 03.10.1996 and No.
22/36/2000 3GSIII dated 09.08.2000). This certificate	is being issued to him/her in terms of notification
issued by Chief Secretary, Haryana vide memo no. 22/282	2003-3 GS III dated 30.01.2001.
No	Signature of the issuing authority
No	Signature of the issuing authority
Date:	Name
Place:	Designation
	(with office seal)

AFFIDAVIT

(by the parents of the backward class category candidates)

I,	Father/Mother of		Resident or
	Tehsil	District	seeking
admission to		course in Haryana do hereby	y solemnly affirm &
declare that I belong to	Caste,	which is included in the list of	f Backward Classes
Block 'A'/'B' approved	by the Haryana Govt. I further	declare and affirm that, I and m	ny wife/husband are
not covered under the cri	teria fixed by Haryana Govt. (Re	fer Chief Secretary, Haryana lett	ter no. 1170-SWL1
95 dated 07.06.1995 & N	No. 62/17/95-6 GSI dated 03.10.1	996 and No. 22/36/2000 3GSII	I dated 09.08.2000)
for excluding socially	advanced persons/sections (Crea	amy Layer) from Backward	Classes. I further
undertake that in case the	e information contained in the ab	ove para is found false at any st	tage, the Competen
Authority will be entitled	I to cancel the admission.		
Date:		1	DEPONENT
Place:			
	VERIFICA	ΓΙΟΝ	
Verified that the above s	statement is true and correct to the	e best of my knowledge and bel	lief and nothing has
been concealed therein.			
Date:]	DEPONENT
Place:			

ANNEXURE -VII

PHYSICALLY HANDICAPPED CERTIFICATE

OFFICE OF THE CHIEF MEDICAL OFFICER	
No Dated : _	
Certified that Mr./Km./Smt./	son/daughter/wife of
Shri	resident of
District	appeared before the
Medical Board for medical check-up. On his/her Medical Examination, it i	s found that the nature of
handicap/disability is% and (as applicable), is as under:	
1. Blind or Low Vision	
2. Hearing impairment	
3. Locomotor disability/cerebral palsy	
Thus, the candidate is physically handicapped as per standard norms of Haryana.	
(Signature of the applicant)	Chief Medical Officer
Date:	(with office seal)
Place:	
Note: The handicap disability should not be less than 40% and should not interprofessional career.	fere with the requirement of

ANNEXURE-VIII

FREEDOM FIGHTERS / DEPENDENTS OF FREEDOM FIGHTERS CERTIFICATE

(Required to be furnished by children/grand children of freedom fighters)

Certified that Mr./Km./Smt./	son/daughter of
Shri	, resident of (Complete Address)
	, Freedom
fighters of Haryana (Identity No.) is father/ grandfather of Mr./Km./Smt./
	Name of the Candidate) of Village,
Town, Police Station	, Tehsil, District
, State	
	(December Commission on af District
	(Deputy Commissioner of District concerned of(with office seal)
:	
e:	
ce:	

CERTIFICATE FOR DECEASED OR DISABLED OR DISCHARGED MILITARY/PARA-MILITARY PERSONNEL, EX- SERVICEMAN OR EX-PERSONNEL OF PARA- MILITARY FORCES

Certified that Number	, Rank		, Name:
S/o or D/o Shri		Fatl	ner/Mother of
	Resident of	Village	Post Office
Tehsil	District	bel	onging to the State of
Haryana, has served in the Army/Air-F	Force/Navy		(Name of the
Para-Military Force) from	to	and	subsequently
invalidated out of service as under:			
1.Medical Category			
i) for JCO's			
ii) For ORS: Shape- I, II, III etc.			
iii) for Rank/Designation (in case of Par	a-military forces)	 	
			-
2. Reason for discharge/retirement:			
3. Death: whether killed in action or any other			
4. If killed in action: Name of the war/operat	ion:		
5. Disabled: Whether disabled during the war	re/operation (name) _		
6. Nature of disability			
i) Whether permanent i.e. for lifeii) Whether temporary up to what extent	 		
Next RSMB is due			
Name of Records			-
		Signature	e of the issuing authority
			(with office seal)
N.			(tar office sour)
e No.:			
»:			

Note: Only the certificate issued by the Officer duly authorized by the Army/Navy/Air-Force/concerned Para-Military Force Headquarters, as the case may be, shall be entertained.

CERTIFICATE FOR THE EX-EMPLOYERS OF INDIAN DEFENCE SERVICES/PARA-MILITARY FORCES

Certified that Number _	· · · · · · · · · · · · · · · · · · ·	Rank	Name: _		
S/o or D/o Shri	Father/Mother of				
Resident of Village		_ Post Office		Tehsil	
District	belonging to the	e State of Haryana, a	as per his/her se	ervice record at the	time of
entry into service, had	served in the	Army/Air-Force/Na	vy (Name of	the Para-Military	Force)
	from	to	and subs	equently discharge	d/retired
from the service on		as per his/h	er service recor	d. At the time of e	ntry into
service the home address	s given is (Distt.) i	n Haryana.		
				Signatur	eOfficer
			Comma	anding/Zila Sainil	k Board/
			Competent A	Authority(with off	ice seal)
Date:			_		
Place:					

DECLARATION BY THE FATHER / GUARDIAN OF THE CANDIDATE

I certify that my son / daughter / ward	has applied the application with
my knowledge and consent and that I hold myself responsible for his / ho	er good conduct and its maintenance
and payment of fees during the period he / she will be on the University R	colls.
I am fully aware of the Supreme Court directives in regard to ragging an	nd my son / daughter / ward will not
indulge in any act of ragging and will strictly adhere to code of conduct pa	rescribed by university.
Place	
Date: Signatur	e of the Father / Guardian

SPONSORSHIP CERTIFICATE

(On the letter head of the organization)

Certified that Mr. / Ms			Son / Daughter/wife of Mr	
	has been workir	ng as	in the department	
of	from	to	in this Organization.	
His / her name is hereby spo	nsored for Full Time / Pa	rt Time PG Prograi	mme at Deenbandhu Chhotu Ram	
University of Science & Tech	nology, Murthal.			
It is further certified that no earlier if selected.	enquiry is pending against	him/her and he/she	will be relieved to join the course,	
Place: Date		•	of the sponsoring with Stamp	

RELIEVING CERTIFICATE (On the letter head of the organization)

Certified that Mr. / Ms.	Son / Daughter/wife of Mr		
		currently	working as
	in the pay scale of	Rs	on permanent
/ temporary basis in our organization/depart	tment has been re	lieved to join PG / Pl	n. D. Programme at
Deenbandhu Chhotu Ram University of Scien	nce & Technology, 1	Murthal and that no vig	ilance / departmental
or any other enquiry is pending against him /	her.		
Place: Date:		Signature of the sponsor Authority with Stamp	ring
Tehsildar/Sub Division Magistrate/District	Magistrate/General	Assistant to Dy. Con	mmissioner or Sub-
Divisional Officer (Civil) of the District/Sub	Division		

Government of Haryana

Income Certificate

(For educational purpose only)

Certified that Mr	S/o	resident of -
	- Tehsil	
District is having annual	family income from all sources Rs	s as
verified by Patwari/competent authority, if employed.		
No.:		Issued by
Date :		
Place :		Tehsildar

Note: The gross annual income of parents shown in the certificate should be of the financial year 2023-24 and the certificate should be issued on or after 01.04.2024.

Government of Haryana (Name and address of the authority issuing certificate) (ECONOMICALLY WEAKER SECTIONS)

Income and assets Certificate (For educational purpose only)

Certificate No. VALI	D FOR THE YEAR	Dated:-	
This is to certify that Sh./S	Smt./Kumari	Son/daughter/wife of	
is per	manent resident of	Vi	llage/Street
Post. Office	Distric	etPin-code	
whose photograph is affixed below and	l attested below belongs to	economically weaker sections sind	ce the gros
income of his/her family is below Rs. Si	x Lakhs for the financial yea	ar	
It is further certified that his	s/her family does own or pos	ssess any of the following assets	
	ft. and above yards and above on notified	ner than the notified municipalities	
Sh./Smt./Kumari	belongs	to the castewhi	ich is not
recognized as Scheduled caste, Backwa	rd class (block- A), backwai	rd class (block-B) (Please strike out	which is
not applicable.			
	Si	ignature with seal of office	
	N	ame	
	D	esignation	
Recent passport size attested photogra	aph of the applicant		
Note:			

- 1. The gross annual income of parents shown in the certificate should be of the financial year 2023-24 and the certificate should be issued on or after 01.04.2024.
- 2. THE PROPERTY HELD BY A "family" in different locations or different places/cities would be clubbed while applying the land or property holding test to determine EWS status.
- **3.** The term 'family' for this purpose will include the persons who applies for benefits of reservation, his/her parents, spouse as well children and sub links below the age of 18 years
- **4.** The competent authority or EWS income certificate shall be Tehsildar of the area where the applicant normally resides/ same as prescribed for issue of resident/income certificate as specified in instruction No. 22/28/2003-3GS-3 dated 30.1.2004

SYLLABI FOR ENTRANCE TEST

 $For the subjects/courses where \ JRF/NET/GATE \ examination \ is \ not \ conducted, \ the \ syllabi \ is \ as \ under:$

ENERGY AND ENVIRONMENT STUDIES (CEEES)

Energy and Environment Relationship: Basics of Clean Energy Sources, Conventional and Non-Conventional Energy Sources, Problems to Environment from These Sources, Quality and Quantity of Their Magnitude, Comparative Study of Different Pollution Problems in Our Country, Future Scenario of Environmental Degradation Due To Conventional Sources.

Classification of Energy Sources: Principle fuels for energy conversion: Fossil fuels, Nuclear fuels. Conventional and Renewable Energy, Energy Sources: prospecting, extraction and resource assessment and their peculiar characteristics, Direct use of primary energy sources, Conversion of primary into secondary energy sources such as Electricity, Hydrogen, Nuclear energy etc, Energy Conversion through fission and fusion, Nuclear power generation etc.

Basics of Thermodynamics: Basic Units, Dimensions and Conversions For Energy, Concepts of Energy, Heat and Work, Ideal gas law, F^tand IInd law of thermodynamics (Closed and Open

Systems)Thermodynamics power cycles, Reversible heat Engine cycle, I.C. engine cycles, Carnot Cycle, Rankin Cycle, Otto Cycle, Vapor Refrigeration and power Cycle etc.

Solar Energy: Nature of Solar Radiation, Global, Beam and Diffuse Radiation, Hourly, Daily and Seasonal variation of solar Radiation, Estimation of Solar Radiation, Measurement of Solar Radiation, Sun as Source of Energy, Availability of Solar Energy, Nature of Solar Energy, Solar Energy and Environment, Various Methods of using solar energy –Photo thermal, Photovoltaic, Photosynthesis, Present and Future Scope of Solar energy. Basics of Semiconductors Physics: Intrinsic and Extrinsic Semiconductor, Direct and indirect transition, inter-relation between absorption coefficients and band gap recombination of carriers.

Basics of Photovoltaic Technology: Types of Solar cells, crystalline silicon deposition techniques, description and principle of working of single crystal, polycrystalline and amorphous silicon solar cells and new materials for solar cells applications.

Hydrogen Energy: Hydrogen as a renewable energy source, Sources of Hydrogen, Fuel for Vehicles, Hydrogen Production: Direct electrolysis of water, thermal decomposition of water, biological and biochemical methods of hydrogen production. Storage of Hydrogen: Gaseous, Cryogenic and Metal hydride, Structural characterization of hydride materials, safety related issues, Fuel cell – Principle of working, construction and applications.

Bio-Fuels: Concept of Bio-energy: Photosynthesis process, Bio-fuels, Biomass resources Bio based chemicals and materials, Thermo-chemical Conversion: Pyrolysis, Combustion, Gasification, and Liquefaction. Bio-Chemical Conversion: Aerobic and Anaerobic conversion, Fermentation etc. Bio-fuels: Importance, Production and applications. Bio-fuels: Types of Bio-fuels, Production processes and technologies, Bio fuel applications, Ethanol as a fuel for I.C. engines, Relevance with Indian Economy. Bio-based Chemicals and Materials: Commercial and Industrial Products, Biomass, Feed stocks, Chemicals. Plastics, Fibers etc.

Nuclear Energy: Potential of Nuclear Energy, International Nuclear Energy Policies and Regulations. Nuclear Energy Technologies – Fuel enrichment, Different Types of Nuclear Reactors, Nuclear Waste Disposal, and Nuclear Fusion.

Environmental Biology and Biodiversity: Fundamental concepts of ecology, Ecosystems, Influence of environmental factors (including temperature, light, moisture, soil, nutrients) on organisms and their adaptations in response to them. Global and National Biodiversity Evaluating nature, scale and intensity of the threats to biodiversity. Developing measures for conservation of biodiversity and approaches to its sustainable utilization. Strategy for Conservation of Bio-Resources International conventions and treaties for conservation of bio-resources.

Environmental Chemistry: Chemistry of Water, Physico-chemical methods for analysis of environmental samples - Estimation of various elements at major, minor trace, ultra trace level concentrations: choice of a technique, principle, merits and demerits of the techniques - neutron activation analysis,

isotope dilution analysis, colorimetry, atomic absorption spectroscopy, ICPAES, gas chromatography, HPLC, ion exchange chromatography and polarography.

Introduction to Atmospheric and geosciences: Dynamics and structure of the Earth: Structure and composition of Earth. Geochemical cycle, Earth's material; Rocks and minerals. Earthquakes, Volcanoes and Earth's interior. Earth surfaces processes and landforms: Weathering and soils, Mass wasting. Impact of anthropogenic activities such as urbanization, mining, river-valley projects, excess withdrawal of ground water. Atmosphere as a part of biosphere ecosystem, Elements of

weather and climate, Evolution of atmosphere, Atmosphere and environmental issues, Composition and structure of the atmosphere, Need of atmospheric studies in environmental science. Atmospheric hazard: Thunderstorm, Tropical cyclone hurricanes, Global warming, Ozone depletion and droughts.

Environmental Pollution and control: Water Pollution, Water Quality Standards: BIS and WHO for drinking and agricultural water. Determination of various physicochemical parameters of water. Waste water treatment processes: primary, secondary and tertiary.

Air Pollution: Classification of air pollutants, sources, atmospheric reactions, formation of secondary pollutants, permissible limits of air pollutants. Effect of meteorological parameters on transport and diffusion of air pollution, effect of air pollutants on climate. Ozone layer depletion and green house effect. Radiation pollution: Radioactivity and its detection: decay types, various detectors used for measurement of radiations, Management of radioactive wastes: liquid, solid and gases. Noise Pollution: Sources, Measurement, permissible limits, Prevention and control of noise pollution.

GIS and remote sensing: Basics of GIS: Definition and Objectives of GIS, History of GIS, Concept of space and time, Elements of GIS, Map Projection: Conical, Azimuthal and Cylindrical. LCC Projection, UTM and Polyconic projections, EMR spectrum, Radiation laws, Active and Passive remote sensing: Optical, Thermal, Microwave, Resolution in Remote sensing data.

Environmental Impact assessment and Environmental Management: Environmental Impact Assessment: Concept, origin and development of EIA, Historical perspective and definition of EIA and EIS; Need of EIA; Scope, objectives; Negative and positive aspects and uncertainties in EIA, Methodology, Baseline studies, assessment of Impact and management plan, Public Participation, Environmental management system (EMS), Principles and elements, Preparation of Environmental Management Plans (EMS): Environmental management, Overview of ISO 14000 series, Environmental law, rules and regulation.

Watershed Management: Concept of Watershed Management: Definition, Principle, Objectives, Benefits and causes of deterioration, Problem identification Environmental Management: scope, importance, Objectives, Environmental Management tools.

APPLICATION FORM FOR RECOGNITION AS a Ph.D. SUPERVISOR

As per ordinance, a supervisor shall be any faculty member of the university as defined in the Ph.D. Ordinance.

The permissible maximum number of students to be supervised at one time is as follows: Assistant Professor: 4 Research Scholars, Associate Professor: 6 Research Scholars, Professor: 8 Research Scholars.

TO BE FILLED BY Ph.D Supervisor

1.	Name (in B	lock Letters) in full:		
2.	Designation	1:		
3.	Faculty:			
4.	Department	t:		
5.	Phone No.:	(1)	(2)	
6.	Email:(1)_		(2)	
7.	Highest Qu	alification:		
8.	Area of Spe	ecialization:		
9.	Experience	Experience (No. of Years)		
	(a) Total Teaching Experience: Years Months			
	(b) Total In	dustrial Experience :Yea	rs Months	
10.	Publications (Please attach list of Publications as per eligibility of supervisor in the Ph.D. ordinance in the format given below with complete citation details in IEEE format and attach their self-attested reprints (title page only) along with the proof of the type of journal clearly indicating the indexing details. The prospective supervisor is required to self-attest all these documents.			
	S.No.	Paper Title, Authors, Vol., No., Page Nos., Year, Journal, Publisher, DOI	Type of Journal SCI/SCIE/SSCI/SCOPUS/UGC-CARE GROUP I/ UGC-CARE GROUP II	
	1			
	2			
	3			

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11. Any ot	her relevant information:	
Date:		
Place:.		Applicant's Signature
TO BE	FILLED BY CHAIRMA	N, DEPARTMENTAL RESEARCH COMMITTEE
. Approva	al of DRC:	
		mentioned information was considered by the DRC (in the
Departm	ent of	under Faculty of) in it (date of meeting). The application of Prof. / Dr
approved	d / rejected. The minutes of	e of the faculty) for Recognition as Ph.D. Supervisor was f the DRC meeting is annexed.
Date:		
Place:		Signature of Chairman, DRC
	1. A list of publications as ting proofs.	per eligibility in the Ph.D. ordinance along with reprints and
Note:		I degree certificates for applicants outside DCRUST. be processed only if the enclosures mentioned above are

Ph.D PROGRAMME REGISTRATION FORM

1.	Name (in Block Letters) in Full:			
2.	Roll No.:	Paste recent		
3.	Faculty:	passport size		
4.	Department:	photograph		
5.	Date of Registration (DD/MM/YY):			
6.	Type of Scholar (Strike through which is not applicable): URS/RESEARCH SCHOLARWITH FELLOWSHIP/SELF-SPONSERED RESEARCH SCHOLAR.			
<i>A</i> .	PERSONAL DETAILS OF RESEARCH SCHOLAR			
7.	Date of Birth (DD/MM/YY):			
8.	Father's /Husband's Name:			
9.	Mother's Name:			
10.	Address for Communication:			
	Phone No.:(1)(2)			
	Emails:(1)(2)			
11.	Permanent Address:			
	DETAILS OF PROPOSED RESEARCH Broad Area of Research:			
13.	Proposed/Tentative Thesis Title:			

C. <u>DETAILS OF THESIS SUPERVISOR(S)</u> and Pre-Ph.D COURSES

14. Supervisor(s):				
a. Supervisor:				
Name:	Designation:			
Faculty:	Department:			
b. Co-Supervisor:				
Name:	Designation:			
Faculty:	Department:			
Proposed Pre-Ph.D. Courses (Refer guidelines described in Ph. D ordinance):				
[A] Mandatory Course(s) of DCRUST				
Course 1:	Course 2:			
(i)Code:	(i) Code:			
Course 3:	Course 4:			
(i) Code:	(ii) Code: (ii) Title: (iii) Credits: (iv) Offering Department:			
Course 5:	Course 6:			
(i) Code:	. (ii) Title:			
[C] Online/MOOC (Conducted by a recognize SWAYAM)	ed Institution/University such as NPTEL/			
(i) Course Title and Credits:				
(ii) Duration:Days/Weeks, Total Co	ontact Hours:			
(iii) Name (s) of the Coordinator(s)	(iii) Name (s) of the Coordinator(s)			
(iv) Name of the Institution/Organization conducting the course:				
(v) Offering Organization:				

CONSENT and UNDERTAKING of SUPERVOSOR(S)

- 16. Consent: I/We hereby, agree to supervise the above candidate for his/her Ph.D. Thesis on the above given topic/area and recommend the above mentioned Pre-Ph.D. course(s) for the scholar.
- 17. Undertaking: I/we hereby, abide by the following guidelines on the maximum number of scholars to be supervised at a time- Assistant Professor: 4 Research Scholars, Associate Professor: 6 Research Scholars, Professor: 8 Research Scholars. Furthermore, I/we also state that I/we have a clear vacancy, at present, for this scholar.

Prospective supervisor(s) are required to put their signature(s) as consent and undertaking. In case, if the supervisor(s) is/are not recognized, she/he/they is/are also required to fill the supervisors' recognition form.

	(1)Name:	_Signature:	Date:		
	(2)Name:	_Signature:			
D.	APPROVAL OF DEPARTMENTAL RE	SEARCH COMMITTEE (DRC)			
(To	be filled by Chairman, DRC)				
The	e DRC in its meeting held on	considered an	d examined the Ph.D		
pro	gramme registration application	of	Enrollment		
No	No				
	Remarks (if any):				
	Date:	Signature of Chairman, DRC:			
	Date	Signature of Chamman, DRC			
	*The Approval/Rejection of DRC is to b	be supported by DRC meeting min	utes.		