

# IndianOil Corporation Limited (Research & Development Centre) Faridabad

### (Advt No R&D/92)

IndianOil is India's flagship national oil company with business interests straddling the entire hydrocarbon value chain – from refining, pipeline transportation and marketing of petroleum products to exploration & production of crude oil & gas, marketing of natural gas and petrochemicals. It is the leading Indian corporate in the Fortune '*Global 500* listing, ranked at the 88<sup>th</sup> position in the year 2013.

With over 34,000-strong workforce, IndianOil has been helping to meet India's energy demands for over half a century. With a corporate vision to be the Energy of India, IndianOil closed the year 2012-13 with a sales turnover of Rs. 4,47,096 crores and profits of Rs. 5,005 crores.

At IndianOil, operations are strategically structured along business verticals - Refineries, Pipelines, Marketing, R&D Centre and Business Development – Exploration & Production, Petrochemicals and Natural Gas. To achieve the next level of growth, IndianOil is currently forging ahead on a well laid-out road map through vertical integration—upstream into oil exploration & production (E&P) and downstream into petrochemicals – and diversification into natural gas marketing, alternative energy, besides globalization of its downstream operations. Having set up subsidiaries in Sri Lanka, Mauritius and the United Arab Emirates (UAE), IndianOil is simultaneously scouting for new business opportunities in the energy markets of Asia and Africa.

Applications are invited from **Indian Nationals** desirous of a **career in Research & Development** for the positions listed below. The Corporation offers excellent opportunities for individual growth and contribution based on performance and potential.

S. N	Areas	No. of Posts	Qualifications & experience	
1.	Intellectual Property  Post Code - IP01  Sr. Officer (Gr B)	1 (One)	Qualifications: Bachelors Degree in Engineering (Chemical / Mechanical) or M.Sc (Chemistry / Bio-technology / Polymer) With minimum 65% marks or above and Registered Patent Agent with Indian Patent office or any other patent office such as USPTO & EPO	
			Experience(Essential): Minimum 3 years as IP Professional in a firm / industry of repute Experience after Registration as Patent Agent will only be considered.  Maximum Age:	
			35 years (with relaxation of up to 3 years for higher experience i.e. 1 year of age relaxation for additional 1 year of experience up to a maximum of 38 years).	
2.	Nanotechnology  Post Code -NT01  Chief Research Manager (Gr F) / Senior Research Manager (Gr E)  (See Note 1)	1 (One)	Qualifications:  a) PhD in Experimental Physics (Nano Metal Synthesis / CNT synthesis & characterization)  OR  b) PhD in Physical Chemistry (Surface Chemistry / Characterization / Milling with subject in Surface chemists Colloidal chemistry/ Nanoparticle synthesis with top dottechnology & characterization)  OR  c) PhD in Material Science (Nano Metal Synthesis / Nanocomposite Milling)  With minimum 65 % marks or above in graduation as well as Post-graduation	
			Experience(Essential):  Minimum 15 years of experience in relevant area after Ph.D for Grade F Minimum 12 years of experience in relevant area after Ph.D for Grade E  Upper Age Limit:  For Grade F: 53 years For Grade E: 50 years	

			Relevant Areas of Experience:				
		Experience after Ph.D. should be in the capacity of a Senior Scientist in R&D/ academia/ industry necessarily in Application of nano-particles / dispersions in liquid-liquid and liquid-solid inter-phases in any of the following areas:					
			A. Petroleum chemistry     B. Nanofluid synthesis & characterization in hydrocarbon medium     C. Nanoparticle surface modification				
			Further experience in the following areas will be desirable:				
			A. Analytical characterization (electron microscopy, Raman spectroscopy)  B. Molecular modeling of surfactants				
			NOTE 1:  In case suitable candidates with desired experience & upper age limit in relevant area as mentioned above for Grade F are not available, candidates with experience and maximum age for Grade E may be considered for selection as Sr. Research Manager. Hence applications are also invited from candidates with qualification upper age limit and experience in the relevant area for Grade E as mentioned above.  However they should clearly specify the grade for which they are applying and they will strictly be shortlisted/ rejected for the grade applied. Candidates are advised to apply only for the grade for which they strictly meet the advertised criteria.				
			In case of Ph.D, research work carried out during Ph.D will not be considered as work experience.				
3.	Bitumen	1	<b>Qualifications:</b> PhD in Organic Chemistry				
	Post Code -BT01  Chief Research Manager (Gr F) / Senior Research Manager (Gr E)  (See Note 2)	(One)	With minimum 65 % marks or above in graduation as well as in Post-graduation  Experience(Essential): Minimum 15 years of experience in relevant area after Ph.D for Grade F. Minimum 12 years of experience in relevant area after Ph.D for Grade E.  Upper Age Limit: For Grade F: 53 years For Grade E: 50 years  Relevant Areas of Experience: A. Bitumen modification B. Development of bituminous products  NOTE 2: In case suitable candidates with desired experience and upper age limit in relevant area as mentioned above for Grade F are not available, candidates with experience and maximum age for Grade E may be considered for selection as Sr. Research Manager. Hence applications are also invited from candidates with qualification, upper age limit and experience in the relevant area for Grade E as mentioned above.  However they should clearly specify the grade for which they are applying and they will strictly be shortlisted/ rejected for the grade applied. Candidates are advised to apply only for the grade for which they strictly meet the advertised criteria.  In case of Ph.D, research work carried out during Ph.D will not be considered as work experience.				

4.	Fuel cell		Qualifications:
"	Post Code -FC01		a. M. Tech in Chemical Engineering  OR
	Dy. Manager		b. M. Tech in Electrochemical Engineering
	Research (Gr C) / Senior	2	With minimum 65 % marks or above in graduation as well as in Post-graduation
	Research Officer (Gr. B) (See Note 3)	(Two)	Experience(Essential): Minimum 6 years of experience after M.Tech preferably in the area of Fuel Cell operation & testing for Grade C. Minimum 3 years of experience after M.Tech preferably in the area of Fuel Cell operation & testing for Grade B.
			Upper Age Limit: For Grade C: 36 years For Grade B: 32 years
			NOTE 3: In case suitable candidates with desired experience and upper age limit in relevant area as mentioned above for Grade C are not available, candidates with experience and maximum age for Grade B may be considered for selection as Sr. Research Officer. Hence applications are also invited from candidates with qualification, upper age limit and experience in the relevant area for Grade B as mentioned above.  However they should clearly specify the grade for which they are applying and they will strictly be shortlisted/ rejected for the grade applied. Candidates are advised to apply only for the grade for which they strictly meet the advertised criteria.
			In case of Ph.D done after M.Tech, research work carried out during Ph.D will not be considered as work experience.
5.	Fuel cell	1	<b>Qualifications:</b> M.Tech in Mechanical Engineering
	Post Code -FC02	(One)	With minimum 65 % marks or above in graduation as well as in Post-graduation
	Dy. Manager Research (Gr C) / Senior Research Officer (Gr. B)  (See Note 4)		Experience(Essential): Minimum 6 years of experience after M.Tech for Grade C preferably in the area of Hydrogen / Fuel Cell Minimum 3 years of experience after M.Tech for Grade B preferably in the area of Hydrogen / Fuel Cell
			Upper Age Limit: For Grade C: 36 years For Grade B: 32 years  NOTE 4: In case suitable candidates with desired experience and upper age limit in relevant area as mentioned above for Grade C are not
			available, candidates with experience and maximum age for Grade B may be considered for selection as Sr. Research Officer. Hence applications are also invited from candidates with qualification, upper age limit and experience in the relevant area for Grade B as mentioned above.
			However they should clearly specify the grade for which they are applying and they will strictly be shortlisted/ rejected for the grade applied. Candidates are advised to apply only for the grade for which they strictly meet the advertised criteria.
			In case of Ph.D done after M.Tech, research work carried out during Ph.D will not be considered as work experience.

Petrochemicals Polymers  Post Code - PPO  Research Office (Gr A)	(Two)	Qualifications:  a. Ph.D. in Chemistry (Organo-metallics) OR  b. Ph.D. in Polymer science (Organo-metallics and or Catalysts and or Polymerization processes)  With minimum 65 % marks or above in graduation as well as in Post-graduation  Experience(Preferred): Candidates with the following experience will be preferred: A. Synthesis of organometallic compounds B. Handling of air and moisture sensitive chemicals/materials C. Synthesis and characterization of Ziegler-Natta / metalllocene catalysts D. Polymerization / copolymerisation of ethylene, propylene and higher olefins using Ziegler-Natta / metalllocene catalysts E. Bench scale polymerization reactors / pilot plant
		Upper Age Limit: 32 years  In case of Ph.D, research work carried out during Ph.D will not be
7. Petrochemicals Polymers Post Code -PPO: Research Office (Gr A)	(One)	considered as work experience.  Qualifications:  a. Ph.D. in Polymer Science/ Material Science OR  b. M. Tech in Polymer/Plastic Engineering/Technology, with B.Tech/B.E degree, having minimum of 1-year industrial / R&D experience, after completion of M.Tech degree. Teaching experience will not be considered. OR  c. M. Tech in Polymer/Plastic Engineering/Technology, with M.Sc., but having minimum of 2-years industrial / R&D experience, after completion of M.Tech degree. Teaching experience will not be considered.  With minimum 65 % marks or above in graduation as well as in Post-graduation  Experience(Preferred): Candidate having worked in the areas of Physical/ Mechanical Testing and Characterization of polyolefins in solid and melt state, post-reactor modification, Polyolefin composites /blends etc, with hands on experience shall be preferred.  Upper Age Limit: For Ph.D: 32 years For M.Tech: 28 years  In case of Ph.D done after M.Tech, research work carried out during

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8.	Solar Energy	1	Qualifications: a) PhD in Science (Physics/ Electronics/ Chemistry)				
	Post Code – SE01	(One)	OR b) M.Tech in any branch of Engineering				
	Dy. Manager Research (Gr C) / Senior		With minimum 65 % marks or above in graduation as well as in Post-graduation				
	Research Officer		Experience (Essential):				
	(Gr. B)		For Ph.D				
	(See Note 5)		Minimum 5 years of experience in relevant area after Ph.D for Grade C Minimum 2 years of experience in relevant area after Ph.D for Grade B				
			For M.Tech Minimum 6 years of experience in relevant area after M.Tech for Grade C Minimum 3 years of experience in relevant area after M.Tech for Grade B				
			Upper Age Limit:				
			Ph.D M.Tech Grade C: 40 years 36 years				
			Grade B: 36 years 32 years				
			Relevant Areas of Experience:				
			Experience should be in any one or more of the following areas of Solar Energy:				
			A. Solar Laboratory establishment and operation of equipments such				
			as sun simulator, texturing mechanisms, etc., B. Solar module / cell characterization, testing & evaluation, processing				
			& fabrication, knowledge of various relevant standards, knowledge				
			of electrochemistry, processing, fabrication & testing of batteries,				
			fuel cells & electrolyzers etc.				
			C. Solar PV system design, yield calculation, knowledge of inverters, batteries, remote monitoring equipments etc. Proficiency in DPR and				
			writing specifications, BoMs statistical analysis, etc.				
			D. Solar thermal material research and solar thermal system installation with knowledge of optical concentration, heat transfer,				
			thermal power plants, steam turbines, thermal storage etc.,				
			E. Solar hydrogen generation & utilization through both solar thermal				
			as well as solar PV route.				
			F. Solar (PV & thermal) product development.				
			NOTE 5:  In case suitable candidates with desired experience and upper age limit in relevant area as mentioned above for Grade C are not				
			available, candidates with experience and maximum age for Grade				
			B may be considered for selection as Sr. Research Officer. Hence applications are also invited from candidates with qualification,				
			upper age limit and experience in the relevant area for Grade B as				
			mentioned above.				
			However they should clearly specify the grade for which they are applying and they will strictly be shortlisted/ rejected for the grade				
			applied. Candidates are advised to apply only for the grade for which they strictly meet the advertised criteria.				
			In case of Ph.D done after M.Tech, research work carried out during Ph.D will not be considered as work experience.				
9.	Gasification	1	<b>Qualifications:</b> M.Tech in Mechanical Engineering				
	Post Code -GS01	(One)	With minimum 65 % marks or above in graduation as well as in Post-graduation				
	Dy. Manager		_				
	Research (Gr. C) / Senior		Experience(Essential): Minimum 6 years of experience in relevant area after M.Tech for Grade C				
	Research Officer		Minimum 3 years of experience in relevant area after M.Tech for Grade B				
	(Gr. B)		Upper Age Limit:				

	(See Note 6)		For Grade C: 36 years For Grade B: 32 years  Relevant Areas of Experience:  Experience should be in any one or more of the following areas of Gasification:  A. CFD B. Modeling C. design experience  The above experience should preferably be in combustion/ gasification
			NOTE 6: In case suitable candidates with desired experience and upper age limit in relevant area as mentioned above for Grade C are not available, candidates with experience and maximum age for Grade B may be considered for selection as Sr. Research Officer. Hence applications are also invited from candidates with qualification, upper age limit and experience in the relevant area for Grade B as mentioned above.  However they should clearly specify the grade for which they are applying and they will strictly be shortlisted/ rejected for the grade applied. Candidates are advised to apply only for the grade for which they strictly meet the advertised criteria.
			In case of Ph.D done after M.Tech, research work carried out during Ph.D will not be considered as work experience.
10.	Gasification	1	<b>Qualifications:</b> M.Tech in Chemical Engineering
	Post Code -GS02  Dy. Manager Research (Gr C) / Senior Research Officer (Gr. B)  (See Note 7)	(One)	With minimum 65 % marks or above in graduation as well as in Post-graduation  Experience(Essential):  Minimum 6 years of experience in relevant area after M.Tech for Grade C preferably in the area of Gasification/ Combustion  Minimum 3 years of experience in relevant area after M.Tech for Grade B preferably in the area of Gasification/ Combustion  Upper Age Limit:  For Grade C: 36 years For Grade B: 32 years
			NOTE 7:  In case suitable candidates with desired experience and upper age limit in relevant area as mentioned above for Grade C are not available, candidates with experience and maximum age for Grade B may be considered for selection as Sr. Research Officer. Hence applications are also invited from candidates with qualification, upper age limit and experience in the relevant area for Grade B as mentioned above.  However they should clearly specify the grade for which they are applying and they will strictly be shortlisted / rejected for the grade applied. Candidates are advised to apply only for the grade for which they strictly meet the advertised criteria.  In case of Ph.D done after M.Tech, research work carried out during
			Ph.D will not be considered as work experience.

Qualification should only be obtained **only through full time regular course.** Qualifications obtained through distance / Part time will not be considered.

# **Physical Fitness:**

Desirous candidates seeking employment with IndianOil need to be **medically fit** as per **IndianOil's pre-employment medical standard**. Candidates are advised to go through the **`Guidelines and Criteria for Physical Fitness for Pre-employment medical Examination**' before they commence the application process. The guidelines are available in the following link:

http://www.iocl.com/PeopleCareers/Pre-employment Guiding Principles11th mar 2011.pdf

#### **Selection Methodology:**

Depending on number of candidates fulfilling all criteria as mentioned above for the post (based on the scrutiny of the application), candidates will undergo a one-tier/ two-tier selection process for selection to the post. The two tier process may comprise of either a written test or preliminary personal interview (again depending on the number of eligible candidates for the post) followed by a final personal interview. The personal interview / interaction will assess the technical, research Knowledge/ experience/ aptitude and behavioral competencies of the candidates. The final selection/Offer of appointment will be based on the candidates performance in Personal interview, being declared as medically fit by IOCL designated Physician, availability of vacancies in various positions advertised, and subject to fulfillment of other eligibility criteria with respect to academic qualification, work experience, age, NOC (from present employer, in case of candidates working in govt./quasi-govt./PSU), relieving letter as may be applicable.

# **Emolument & Placements:**

Selected applicants will be placed in the pay scale mentioned below. Besides Basic pay, the applicant will be entitled for Industrial pattern of DA, perquisites & allowances as admissible in the grade, Performance Related Pay, HRA, Medical coverage, Gratuity, Provident Fund, Group Personal Accident Insurance, House Building Advance, Conveyance advance, etc. as per Rules.

Coverage under the contributory pension superannuation benefit fund scheme and Post retirement medical benefit facility shall be subject to meeting the eligibility criteria as laid down by Department of Public Enterprises (DPE), Govt. of India in this regard.

#### Current pay scale is given below:

S.No	Position	Salary Grade	Salary Scale (in Rs.)
1	Chief Research Manager	F	51,300-73,000*
2	Sr. Research Manager	Е	43,200-66,000*
3	Dy. Manager	С	32,900-58,000*
4	Sr. Research Officer	В	29,100-54,500*
5	Research Officer	Α	24,900-50,500*

<sup>\*-</sup> Candidate selected for respective positions will be placed in salary scale stated above.

#### **Concessions/Relaxations:**

- Reservation of posts for SC/ST/OBC (Non-Creamy Layer) / PH (degree of disability 40% or above) as per Govt. Directives.
- Reservation of Ex-servicemen shall be applicable as per Govt. Directives.
- Age relaxation by 5 years for SC/ST, 3 years for OBC applicants and 10 years for PH applicants.
- Age relaxation by 5 years for applicants domiciled in Jammu & Kashmir between 1.1.1980 and 31.12.1989.
- Exemption from payment of application fee for SC/ST/ PH applicants.

#### **General Instructions**:

- 1) Only Indian Nationals need to apply. Those applicants who are presently residing outside India must submit valid proof of their being an Indian Citizen such as copy of valid Indian Passport.
- Only Post-Qualification Experience will be considered for the purpose of calculation of period of work experience.
- 3) In case of Ph.D candidates, experience will be counted from the date of successful defense of your Ph.D dissertation / thesis. It is mandatory for candidates possessing Ph.D qualification to mention the date of successful defense of Ph.D in their application. In case of M.Tech candidates, experience will be counted from the date of successful completion of your M.Tech degree.
- 4) The percentage of marks should be calculated after taking into account marks obtained in each subject studied in all semesters/ years including those of language or subsidiary papers.
- 5) Candidates with higher qualifications, publications/ patents to credit at international levels, notable achievements at work, work experience in national/international laboratory may also apply.
- 6) Applicants must have consistent good academic record. Applicants having published work in national/international journals of repute should submit details with application.
- 7) Wherever CGPA/OGPA/DGPA or letter grade in a degree is awarded, its equivalent percentage of marks must be indicated in the application as per norm adopted by the University/Institute.
- 8) Applicants presently employed in Govt. Deptt / PSUs / Autonomous Bodies must apply through proper channel. They may submit an advance copy of the application before the last date of application however the application through proper channel must be received within one month of the last date of receipt of application failing which their candidature is liable to be rejected.
- 9) Applicants belonging to OBC category but coming in Creamy Layer will not be entitled to the benefit of reservation and should apply as general category candidate.

- 10) Minimum percentage of marks in the qualifying examination prescribed above is relaxed to 55% for SC/ST/PH category applicants.
- 11) Incomplete applications not supported by attested copies of relevant documents in support of age, qualifications (Mark sheet/degrees), experience and caste certificate (in case of SC/ST/OBC/PH), not fulfilling the eligibility criteria or those received after the last date of receipt of applications shall not be considered and treated as "Rejected".
- 12) In case any certificate/ testimonial has been issued in any other language other than English/ Hindi, the candidate must submit a self-certified translation copy of the same either in English or Hindi.
- 13) The age & experience for the above posts shall be reckoned as on 31/10/2013.
- 14) General and OBC applicants are required to send a NON-REFUNDABLE crossed Demand Draft for Rs. 300/(Rupees three hundred only) as application fee drawn on State Bank of India, Faridabad (Code 10449) in
  favor of INDIAN OIL CORPORATION LTD., R&D CENTRE payable at Faridabad. SC/ST/ PH applicants are
  exempted from payment of application fee. Write name and address on the reverse of Demand Draft. MO /
  IPO or any other mode of payment or DD drawn on banks other than SBI will not be accepted.
- 15) Outstation applicants called for interview will be reimbursed 2 tier AC Rail fare or actual Bus fare by the shortest route, provided the distance travelled is not less than 160 km on production of actual rail/Bus ticket from mailing address/place of present posting.
- 16) In case of candidates coming from overseas, reimbursement of fare will be limited to 2 tier AC Rail fare or actual Bus fare by the shortest route for inland travel from port of arrival.
- 17) Write name of the post at the top left hand corner of the envelope.
- 18) The decision of the management in all matters relating to eligibility, acceptance or rejection of the application, mode of selection will be final and Management will not entertain any enquiry or correspondence in this regard.
- 19) IOCL reserves the right to not fill any of the above posts advertised at any stage of the selection process.
- 20) Canvassing of any kind shall disqualify the candidate.
- 21) Please mention correct and active email-id/ contact number for various communications. Candidates must have an active email-id which must remain active for at least next one year. All communications with the candidates will take place through email only.

The vacancies and reservation indicated above is tentative and may increase or decrease in the relevant categories at the absolute discretion of management and in compliance with Presidential Directives on reservation at the time of appointment.

#### LAST DATE OF RECEIPT OF APPLICATIONS: 20.12.2013

How to apply: Only those applicants who fulfill the eligibility criteria should submit typed/computer printed applications strictly in the prescribed format (attached) to Chief Manager (HRD&Trg), Indian Oil Corporation Limited, Research and Development Centre, Sector 13, Faridabad-121007 (Haryana) only by ordinary post so as to reach latest by 20.12.2013.

The prescribed format for sending the application can be downloaded by clicking on the following link:

**Download Application Form** 

Contact Person: Shri Pritish Vats

**Employee Relations Officer** 

IOCL R&D Centre, Tel: 0129-2225691

Applications which are received incomplete and or are without attachments / wrong particulars and those who do not meet the prescribed eligibility criteria as per advertisement or received after the due date will entail rejection and the application money will not be refunded.

While applying for a post in response to this advertisement, candidates must ensure that they fulfill the eligibility criteria and other norms for the said post and must ensure that all particulars filled by them in the application format are correct and complete in all respects. In case it is detected at any stage of the recruitment process that a candidate does not fulfill the eligibility criteria or has submitted false information or has suppressed any material fact(s) his / her candidature will automatically stand cancelled. If any of the above shortcomings are detected even after appointment, his / her services are liable to be terminated without any notice.

Court of jurisdiction for any dispute with reference to this recruitment advertisement will be at Faridabad, Haryana.



# IndianOil APPLICATION FORM (TO BE FULLY TYPED IN CAPITAL LETTERS)

2. Post appli	ed for:		2. (a) Post	Code:		Photograph
3. Name of t	he applicant:					
4. Father's/H	usband's Name:					
5. Date of Bi	rth: (dd/mm/yyyy)	Day _	Month _		Year	
6. Age as on	31.10.2013:	Days	Months	Years		
7. Nationality	<i>r</i> :	8. State of Domi	cile (state belongs to	o):		
9. Category (	SC/ST/OBC/PH (if PH, ir	ndicate degree of	disability):			
10. Sex (Wri	te M or F):					
	e Correspondence Addre					<u> </u>
District	:	State:		Pin		
	tion (Secondary School o		Te u e	T 5		
Name of Exam. Passed	Name of Institute/University	Duration of Course	Full Time/ Correspondence	Date of Passing	Major Subjects	# Percentage of marks obtained (cumulative of all semester/years)
		1	·		or University /	Institute norms.

# 15. Work Experience:

Name & Address of the organization/employer	Post held	Period From To	Nature of Job (in detail)	Salary drawn	Reason for leaving

16. M. Tech Dissertation/ Ph.	D Thesis To	onic*:			
Name of Guide:	D THESIS IT	opic .			
* Elaborate thesis/dissertation (Mandatory).	on details (	(Ph.D/M.Tech.) with	name of the guid	de should be	provided as enclosur
17. Demand Draft details: Dra	aft No	Date of Iss	ue	Issuing Bank _	
18. Whether Applied Earlier:					
If Yes (Stat	e Advertise	ment No. & Post)			
19. E-mail id :					
20. Phone No. :	-				
21. Source of Advertisement:					
(Name of Newspaper or 3	ournal or V	Vebsite or Other sourc	ces)		
I hereby declare that the abo will be cancelled, if the inform					
Place & Date:			Signatu	re:	