Indian School of Mines Dhanbad-826004



Regulations for the Award of the Research Degree of Doctor of Philosophy (Ph.D.)

(As amended by the 85th Academic Council Meeting held on 08.08.2013)

INDIAN SCHOOL OF MINES DHANBAD

REGULATIONS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY (Ph. D.)

Preamble

Indian School of Mines (ISM), since 1926, has been in the forefront of providing higher technical education. From an Institution developing specialized manpower in the areas of Mining Engineering, Mineral Engineering, Petroleum Engineering and Earth Sciences, ISM has emerged as a full-fledged technical higher education institution with manpower development in basic engineering, advanced science disciplines, Management and Humanities and Social Sciences.

In the last decade, ISM has put great efforts in maximizing the quality education through improved research facilities, increased number of research scholars, enabling environment and rules and regulations to create a research culture for enhanced R&D, high end research in frontier areas of Science and Technology.

Realising that research has no rigid boundaries and is all-encompassing, ISM has resolved to encourage cross-migration of research from science to engineering to management and *vice versa*. ISM has moved beyond the boundaries of disciplines/departments and has emphasis on the award of doctoral degree of the Institute on the topic of research unlike the earlier model of degree from a Department or in a discipline.

The rules and regulations provided in the following pages are documentation of such initiatives, resolutions and progressive thinking.

1. Definitions

In these regulations, unless there is anything repugnant in the subject or context

- (a) "Regulations" shall mean, regulations framed under the Society Rules of Indian School of Mines, Dhanbad
- (b) "Institute" shall mean the Indian School of Mines, Dhanbad.
- (c) "Academic Council" (AC) shall mean the Academic Council of the Institute.
- (d)"Research Council" (RC) shall mean the Research Council of the Institute.
- (e) "Examination Board" shall mean the Examination Board of the Institute.
- (f) "Director" shall mean the Director of the Institute.

- (g)"Chairman" shall mean the Chairman of the Academic Council of the Institute.
- (h) "Dean (R&D)" shall mean the Dean (Research and Development) of the Institute.
- (i) "Registrar" shall mean the Registrar of the Institute.
- (j) "Head" shall mean the Head of the Department or Centre (in the Institute) under whose jurisdiction the candidate is working for the Degree.
- (k) "Departmental Research Committee" (DRC) shall mean Departmental Research Committee which includes Centre's Research Committee (CRC).
- (l) "Doctoral Scrutiny Committee" (DSC) shall mean the committee to scrutinize the application for PhD registration, Progress Monitoring, Award etc. of a candidate.

2. Eligibility and Registration

A candidate may register for Ph. D. Programme in ISM provided he/she fulfills the following eligibility criteria:

2.1 Eligibility for Engineering/Science/Management

A candidate possessing Degree in Engineering / Sciences / Management, and selected through the JRF admission process of the Institute or as a project fellow in sponsored research projects through the selection process of the Institute or qualified in NET for research Fellowship, may be permitted to register for Ph. D. Degree of ISM provided any one of the eligibility conditions given below is fulfilled:

- (a) A Postgraduate Degree with a minimum of 60% marks or First Class or equivalent grade.
- (b) A Bachelor's Degree in Engineering with a minimum of 60% marks or First Class or equivalent grade at the qualifying examination.
- (c) A Postgraduate Degree / Diploma recognized as equivalent to Postgraduate Degree in Management by AICTE/UGC/AIU and the Academic Council with a minimum of 60% marks or First Class or equivalent grade in the qualifying examination.

2.2 Eligibility for Humanities and Social Sciences

A candidate processing a Postgraduate Degree in Humanities, Social Sciences, Sciences, Engineering, and Management with a minimum of 55% marks or equivalent grade, and selected through the JRF admission process of the Institute or as a project fellow in sponsored research projects through the selection process of the Institute or qualified in NET for research Fellowship, may be permitted to register for Ph. D. Degree of ISM.

2.3 Registration of employed candidates as part-time Ph.D. scholar

Candidates employed in Government or reputed Organisations / Companies can apply for registration as part-time Ph.D. students. Such candidates must have the educational qualification mentioned in Clause 2.1 or 2.2. However, a candidate possessing a Bachelor's Degree in Engineering with a minimum of 60% marks or First Class or equivalent grade at the qualifying examination, can be registered as a part-time Ph.D. scholar provided he/she has one-year service experience. ISM does not require "No objection certificate" for registration of part-time scholars. It is the responsibility of the candidate to have the required clearance, if any, from his/her employer while applying for part-time Ph.D. registration.

NOTE:

- i. For the Eligibility qualification under Clause 2 the candidates whose marks are in CGPA (Cumulative Grade Point Average) and no class has been indicated may only be considered if proper documents are produced to prove passing the examination with a minimum of 60% marks. Otherwise such cases may be dealt with the rules prevailing at ISM.
- ii. M.Tech./M.S. by Research in Engineering/Science in a relevant field will be treated as equivalent to 60% marks or First Class for the purpose of Ph. D. registration.
- iii. All candidates registered under the Clause 2 may have to clear the courses, if any, prescribed by the DSC (under Clause 3b) on the basis of the degree obtained, courses completed etc. within two years from the date of confirmation of registration. DSC may suggest a candidate to take a course on "English for Technical Communication", if felt necessary.

3. General Guidelines for Registration

- (a) The application for registration will be submitted to the Academic Section, who will forward it to the concerned guide. The guide/supervisor will propose the DSC, as given at (b) below, to the Head of the Department, who will forward the same to the Chairman, Academic Council for approval. The approved DSC will then scrutinize the application with respect to eligibility, qualification, synopsis and course(s) to be cleared, if any. Subsequent to registration, the file will be sent to the Academic Section for further action and record.
- (b) A Doctoral Scrutiny Committee (DSC) shall be approved by the Chairman, Academic Council, on the recommendation of the Head of the Department, as proposed by the Supervisor(s).

The constitution of the DSC shall be as follows:

- 1. Senior Faculty Member of the Department with relevant expertise: Chairperson
- 2. One of the DRC members of the Department : Member
- 3. One Faculty member from another Department : Member
- 4. Guide/Supervisor(s) : Member

In case the Chairperson is the Guide/Supervisor, another faculty member from the Department will be a member of the DSC.

- (c) The DSC while recommending the registration shall specify the course(s) to be cleared by the candidate, if required.
- (d) In each of the course(s) to be cleared, the candidate will be required to obtain at least C Grade. If a candidate fails to obtain minimum C Grade in any course within the stipulated period, the registration of the candidates will stand cancelled.
- (e) The application for Registration as a full-time candidate for Ph.D. Degree of the Institute shall be made by the candidate in the prescribed format within three months of his/her joining the department. The application for part-time registration can be made anytime throughout the year. The application shall contain the following:
 - (i) The name, home address and occupation of the applicant.
 - (ii) Academic qualification of the applicant (Degree obtained, with percentage of marks/grade/class, year, and name of the Institute awarding the Degree).
 - (iii) Teaching, research and/or industrial experience, if any, of the applicant.
 - (iv) A synopsis of the problem in about 1000 words (2 Pages, excluding references) on which he/she proposes to work along with the proposed plan of work.
 - (v) A statement on the previous research work done and/or publications, if any.
 - (vi) Whether any application for a research Degree was submitted by him/her previously to any Institute and if so, with what result.
 - (vii) The name, qualification and designation of the proposed guide(s). (A co-guide should be associated if the guide is scheduled to retire within one year).
 - (viii)An affirmation of consent by the proposed guide(s).
 - (ix) Bio-data of external guide, if any.
 - (x) Any other relevant information.
- (f) (i) Internal guide should be a Ph.D. Degree holder and faculty member of the Institute.
 - (ii) A Chair Professor / Emeritus Scientist / Emeritus Faculty / Adjunct Professor / Project Coordinator or of equivalent status associated with the Institute may be permitted to register a student under his/her guidance for Ph.D..
 - (iii) A faculty member registered for Ph.D. Degree will not be permitted to guide a scholar for Ph. D. Degree.
 - (iv) An external guide may be permitted for research scholars if so desired by the DSC, in keeping with the topic of research and the expertise and facilities available in the institution/laboratory outside ISM. An external guide from an organization, other than the organization where the candidate is employed, is also permissible for part-time Ph.D. registration.

- (v) For interdisciplinary research work, two guides may be chosen with clear indication of guide and co-guide. Joint guides may be permitted from the same department where the research topic is of interdisciplinary / intra-disciplinary nature and there is a clear-cut distinction between the research areas. The DSC should ensure the justification of guide and co-guide from the same Department based on the specific contribution required from the two faculty members.
- (g) The date of registration of Full Time Research Scholars may be accepted as date of joining in the Institute on the recommendations of DSC through guide. The date of receipt of the application from a candidate applying for part-time Ph.D. registration will be the date of registration. Chairman, Academic Council can accord the approval for such registration, while the same should be ratified in the next Academic Council meeting. In case, the research load limit of the guide is full, the date of registration will be effective from the date the research load of the guide comes down to permissible limit.
- (h) Candidate registered for the Ph.D. Degree may be permitted to modify the scheme or title of his/her research work during the Presubmission Seminar with the approval of the Chairman, Academic Council provided the DSC recommends such changes.
- (i) A candidate may, if sufficient grounds exists, be permitted by the Chairman, Academic Council to add or change his/her guide(s). Such applications for addition / change of guide(s) shall be submitted to the Chairman, Academic Council through the Chairman, Research Council.
- (j) A candidate registered for Ph. D. Degree may submit his/her thesis for examination normally after two years from the date of registration in case of those having a M. Tech. / M. Sc. Tech. / M. Phil. / MBA degree or after three years in case of those having Bachelor's Degree in Engineering / Master's Degree in non-Engineering subjects.

Note: Candidates having Bachelor's Degree in Engineering/ Master's Degree in non-Engineering subjects, who are willing to submit their thesis before the stipulated period for submission must have significant/outstanding research and have at least three publications in peer-reviewed international journals. Such applications are to be recommended by the DSC for approval of the Chairman, Academic Council.

(k) No candidate shall be permitted to remain registered for a period exceeding seven (07) years from the date of registration. However, an extension of one year may be granted by the Chairman, Academic Council on specific request from the candidate forwarded by the guide(s) through DSC with proper justification for non-completion within seven (07) years.

4. Research Work and Thesis

4.1 (a) A Research Scholar registered for Ph. D. Degree shall be required to carry out research work under the guidance of a supervisor(s) approved by the Academic Council.

- (b) In case the guide of any candidate ceases to be the guide by virtue of retirement or on leave or otherwise, and there is no co-guide in the concerned department, the assignment of next guide shall be made by the Chairman Academic Council on recommendation from DSC. However, no change of guide shall be necessary in case of absence of the guide from the Institute for less than a year provided that the candidate has worked under him/her for a year or more. In such cases, the DSC shall assign an acting supervisor during the period of absence of the guide. However, this may be done in consultation with the guide.
- (c) The maximum permissible research load for faculty is given below:

Professor - 16 Associate Professor - 12 Assistant Professor - 08

The load for guiding Full time research scholar is 1 and for Part time research scholars is ½. However, in case of joint guidance by the faculty members of the same/different departments, the load to each faculty member should be shared equally i.e.

For full time scholar: 1/2 For part time scholar: 1/8

- 4.2 On the recommendation of the guide and concerned DSC, a Full-time Research Scholar who has completed minimum of one year in the Institute and completed substantial part of research work may apply for conversion to part-time registration when he/she joins an organization on employment.
- 4.3 (a) A Fulltime Research scholar has to submit a progress report within two weeks of completion of every six-months from the date registration through his/her internal guide(s) and DSC. At the end of each academic year, the guide(s) shall arrange in consultation with DSC for a review of the progress of the scholar through a seminar. After having considered the progress report of the candidate, the DSC shall recommend one of the following:
 - (i) Continuation of registration of the scholar.
 - (ii) Termination of registration of the scholar.
 - (b) Research scholar who could not submit his/her thesis within the maximum stipulated period for submission of thesis, may be permitted by Academic Council to re-register on the same subject and may submit his/her thesis after one year of such re-registration. The period of re-registration shall be counted from the date of expiry of the earlier registration. If the candidate has fulfilled the course work and other related requirements during the earlier registration he/she shall be exempted from same during the period of re-registration.
- 4.4 The thesis for the Ph. D. Degree shall:
 - (a) Be composed on the problem stated in the candidate's application.
 - (b) Embody the results of research work carried out by him/her.

- (c) Show evidence that it is a piece of research work characterized either by the discovery of new facts or by an attempt at a fresh interpretation of known facts and theories.
- (d) Show evidence of the candidate's capacity for originality, critical examination and judgment.
- (e) Be satisfactory in presentation so far as language, style and form are concerned. Every such thesis shall include a suitable abstract of the work presented.
- 4.5 The candidate shall indicate clearly in his/her thesis:
 - (a) The source from which referred information is taken.
 - (b) The extent to which he/she has availed himself / herself of the work of others and the portion of the thesis he/she claims to be original.
 - (c) Whether his/her research has been conducted independently or in collaboration with others.
- 4.6 The thesis shall carry a declaration from the candidate's guide(s) to the effect that-
 - (a) The subject matter of thesis is a record of work done by the candidate himself/herself under his/her/their guidance.
 - (b) The contents of the thesis did not form a basis for the award of any previous Degree to him/her (other than that of M. Phil./M.Tech.) or to the best of his/her/their knowledge, to any other person.
 - (c) A candidate with prior permission from the guide(s) may incorporate in his/her thesis the content of any work, which he/she may have done previously, but has to indicate the extent to which it has been incorporated. However, the guide must satisfy himself/herself that the work is done by the candidate, particularly when the research work is done in some other organization without an external guide.

5. Submission and Evaluation of the thesis

The Supervisor(s), on the request of the candidate and after being satisfied with the prerequisites, will request the Chairperson, DSC for a suitable date for pre-submission seminar.

5.1. Requisites for Pre-submission Seminar

5.1.1. The candidate must have two papers published/accepted for publication in a refereed journal of repute, or at least one paper published/accepted for publication in a refereed journal of repute and one full paper published/accepted for publication in Proceedings of an International/National Conference.

Communicated papers will not be considered.

5.1.2. The first draft of the thesis must be ready at the time of pre-submission seminar and one copy should be made available to the DSC.

5.2. Pre-submission Seminar

- 5.2.1. The candidate will be required to submit draft synopsis of the thesis (5 copies) and give a pre- submission seminar on a date that shall be notified adequately in advance by the Supervisor(s) so as to enable interested Faculty members and students to attend the same.
- 5.2.2. The DSC shall assess the work of the candidate through the pre-submission seminar. The candidate will prepare the final synopsis of the thesis only if the DSC is satisfied about the quality of the research work.
- 5.2.3. The Chairperson, DSC shall forward a satisfactory pre-submission seminar report of DSC to the Examination Section, along with the proof of publication/acceptance of research papers.

If the DSC is not satisfied about the pre-submission seminar, the candidate will be informed by DSC to give pre-submission seminar again on a separate date.

5.3. Submission of Synopsis and List of Examiners

5.3.1. The candidate through Supervisor(s) shall submit to the Examination Section, a soft copy (in PDF version) and two hard copies of the synopsis of the thesis, within seven days from the date of successful completion of pre-submission seminar. The synopsis should be typed on A4 size paper using one and half line spacing. The length of the synopsis should be between 10-12 pages including tables and figures.

The Supervisor(s) should ensure that the literary presentation of the synopsis is of acceptable standard and the technical contents of the synopsis clearly spell out the research contribution that will be detailed in the Ph.D. thesis later.

5.3.2. The Supervisor(s) through the Head of the Department shall submit a list of Examiners to the Examination Section, within seven days from the date of successful completion of pre-submission seminar. The list shall consist of name, designation, complete postal address, telephone numbers and e-mail address of four foreign and six Indian examiners from Universities / Industries / Research Institutes.

5.4. Submission of the Thesis

- 5.4.1. Candidate through Supervisor(s) should submit to the Academic Section a soft copy (in PDF) and four soft bound printed copies of the thesis written in the prescribed format, within 60 days from the date of successful completion of presubmission seminar.
- 5.4.2. In case the synopsis and thesis are not submitted in the specified period, the candidate will be asked to present another pre-submission seminar.
- 5.4.3. The following are to be submitted along with the thesis:
 - a. Certificate from the Research Supervisor(s) confirming that the thesis contains *bona fide* work carried out by the candidate and that the thesis does not contain any work, which has been previously submitted for the award of any degree.
 - b. A certificate from the candidate countersigned by the Supervisor(s) stating that the thesis does not contain any classified information, or the requisite permission has been obtained from the concerned authority for using such information.
 - c. Copyright form transferring all copyrights to the Institute.
 - d. Certificate of the Examination Section that requisite courses, if any, have been cleared by the candidate.
 - e. Cash receipt of Examination / Evaluation fee.

The items in Clause 5.4.3 a-c must form a part of the thesis, and items in Clause 5.4.3 d-e must be submitted separately.

5.5. Selection of Examiners from the Panel of Examiners

From the list of examiners submitted, the Examination Board shall approve a panel of examiners in order of preference, separately for foreign and Indian examiners.

In case of the Examination Board meeting scheduled beyond 7 days of the submission of the list of examiners, a committee comprising of the following members shall select the panel of examiners:

a. Chairman Examination Board - Chairman
b. Dean (Research & Development) - Member
c. Dean (Academic) - Member
d. Associate Dean (Academic & Research) - Member
e. Registrar - Secretary

The recommendation of the committee shall be reported to the Examination Board in its next meeting.

5.6. Evaluation of the thesis

- 5.6.1. The thesis would be sent for evaluation to three external examiners from the approved panel, out of which one would be from foreign University / Industry / Research Institute.
- 5.6.2. Permission to conduct the Ph.D. *viva voce* examination would be granted on receipt of favorable reports from any two appointed examiners within 45 days from the date of despatch of the thesis, subject to the approval of the Chairman, Examination Board.
- 5.6.3 In case only one favourable report is received within the stipulated time, the thesis shall be sent to two more examiners from the approved panel. If reports from both the newly appointed examiners are not received within 30 days from the despatch of the thesis, the matter will be referred to the Committee (as mentioned in 5.5) for appropriate action.
- 5.6.4. If any revision of the thesis is suggested by the examiners, the candidate shall be required to submit the revised thesis within a period of three months from the date of intimation to the candidate. The Supervisor(s)/Guide(s) must give a compliance certificate to the effect that the required revisions have been incorporated.
- 5.6.5. If two of the reports are unfavorable, the thesis submitted by the candidate shall be disapproved. The decision will be communicated to the candidate and the Supervisor(s) by the Registrar.
- 5.6.6. A thesis, which has been disapproved, may be permitted to be revised and resubmitted. In such cases all processes for evaluation of thesis shall be followed, and the external examiners shall be appointed by the Examination Board afresh.
- 5.6.7. Resubmission of thesis shall be permitted twice only.

6. Ph. D. Defence Seminar and Viva Voce Examination

- 6.1. After the thesis has been approved as detailed in Rule 5, the candidate shall be required to give a Ph.D. defence seminar on a pre-specified date notified by the Supervisor(s). The Ph.D. defence seminar will be followed by a *viva voce* examination conducted by the Examination Committee comprising of the members of DSC and one of the External Examiners.
- 6.2. Presence of at least three members including one External Examiner from among the approved panel of examiners is essential during defence seminar and *viva voce*.

- 6.3. The external examiner could participate in the examination by means of video conferencing in case he/she is unable to be physically present for whatever reason(s).
- 6.4. In extraordinary situation, which will be recommended by DSC and permitted by the Chairman, Examination Board, the candidate can defend his/her thesis through video conferencing.
- 6.5. The Ph.D. defence seminar and *viva voce* examination should be with reference to the thesis and concerned topics only.
- 6.6. The Ph.D. defence seminar and *viva voce* examination should be conducted in public. However, the attendees other than members of the examination committee will be permitted as observers only.
- 6.7. The Guide(s)/Supervisor(s) shall send a report of the recommendations of the examination committee of the Ph. D. defence seminar and *viva voce* examination to the Examination Section.
- 6.8. After successful completion of Ph.D. defence seminar and *viva voce*, the candidate shall submit to the Examination Section, two hardbound copies and one soft (PDF version) copy of the thesis for official record.

7. Award of Ph. D. Degree

- 7.1. Based on the report of the Examination Committee, the Examination Board after being fully satisfied that the candidate is worthy of award of Degree of Ph. D. of the Institute, will recommend the candidate's name to be published for award of Ph. D. degree along with the title of the candidate's thesis and name of the Supervisor(s) / Guide(s).
- 7.2. In case of Examination Board meeting scheduled beyond 7 days of the submission of final report, the Committee mentioned in 5.5 shall consider the final Ph.D. report mentioned in 6.7 and recommend the candidate's name to be published for award of Ph.D. degree along with title of the candidate's thesis and name of the Supervisor(s) / Guide(s).
 - The recommendation of the Committee shall be reported to the Examination Board in its next meeting.
- 7.3. A provisional certificate shall be issued from Examination Section after the results are declared with approval from the Competent authority.
- 7.4. An appropriate Degree under the seal of the Institute with the title of thesis shall be awarded to the successful candidate in the ensuing annual convocation.

8. Miscellaneous

- 8.1 Any doubt or dispute arising about the interpretation of the regulations shall be referred to the Chairman, Academic Council whose decision shall be final.
- 8.2 If a candidate is likely to submit his/her thesis within two months from the due date of payment of tuition fees, he/she need not to pay the fees for the next semester/year. However, this period will not be extended in any case. Also, prior approval in this matter should be obtained from the Chairman, Academic Council.
- 8.3 Teachers and other employees of the Institute will be exempted from paying the fees.
- 8.4 Full-time Research Scholars may be permitted (unless otherwise governed by other rules) leave of 15 days/semester. The paternity/maternity leave is admissible as per Govt. of India rules. Absence without sanctioned leave will entail loss of financial assistantship for the period of absence and may result in the termination of registration on the recommendation of DSC. No relaxation in the maximum period for thesis submission is permissible for such reason.
- 8.5 Those candidates who have joined ISM as Project Fellow / Research Fellow under any research scheme shall be treated as a Full Time Research Scholars on the following terms and conditions:
 - (i) Projects Fellow / Research Fellow / any other similar nomenclature should be a Regular Scholar of a Project at ISM for a minimum period of one year.
 - (ii) The fellow should give an undertaking in writing that he / she would work for a minimum of one year in the Project.
 - (iii) In the event of the Research Fellow leaving ISM due to employment or any other reasons, ISM Ph. D. Rules Clause 4.2 will apply.

9. Registration of Foreign Nationals

Foreign Nationals selected under various scholarship schemes of the Ministry, Government of India are considered for admission on the recommendation / sponsorship of the respective Ministry provided they fulfill the academic and other requirements. Such candidates should route their applications through the Ministry concerned.

Self-financing foreign students may be considered for admission provided they fulfill the requirement of qualifying examination. Offers of admission to them will be issued with intimation to the Ministry of Human Resource Development, Government of India. It will be the responsibility of the prospective foreign national student to ensure that he/she has the proper visa and other related documents.

10. Appendix

The forms given in the appendices mentioned below are to be used as standard formats.

- i. Appendix-I: Application Form for Ph.D. registration
- ii. Appendix –II: Half Yearly Progress Report
- iii. Appendix –III: Annual Progress Report
- iv. Appendix –IV: Format for Thesis
- V. Appendix-V: Copyright Transfer



INDIAN SCHOOL OF MINES DHANBAD – 826004

Affix Photograph (Passport size)

Candidate's Signature

APPLICATION FOR Ph. D. REGISTRATION

- 1. Department:
- 2. Discipline: **Full Time / Part Time** Ph. D Program (Select the applicable one)
- 3. Name of the Guide(s): 1. (Internal)
 - 2. (External)
 - 3. (Co-guide)

4. Registration Fee:	Number	Date	Amount (Rs.)
(Demand Draft / ISM Cash Receipt)			

5. Name: (In Block Letter)

6. Father's Name: (In Block Letter)

7. Date of Birth:

8. Sex:

9. Nationality:

10. Address for Correspondence :

11. Topic of Research:

12. Educational Qualification: (start with the highest degree)

Sl.	Examination	School / College	Board /	Year	%	Class	Subject
No.	Passed		University			Division	
1.							
2.							
3.							
4.							
5.							

4 - 5 - 4	Position Held	Nature of	Perio	od	Pay-Scale
the Employer		Responsibility F	rom	То	
14. Research Experience	ce, if any:				
15. Research paper pub	olished / accepted f	or publication :			
13. Research paper put	onshed / decepted is	or publication.			
16. Has any application If so, with what res	_	ee been submitted previous	y to the	ISM by	the applicant
ii 50, witti wiiat les	oute:				
	D 1				
	Decla	ration by the Applicant			
I hereby declare that th		above are correct and that	I shall a	bide by	the rules and
regulation of the ISM.			I shall a	bide by	the rules and
<u> </u>				·	
regulation of the ISM. Date:				·	the rules and of the Applican
regulation of the ISM. Date:				·	
regulation of the ISM. Date:	ne particulars given	above are correct and that		·	
regulation of the ISM. Date: Place: Enclosures: [Please tick]	e particulars given	above are correct and that	Sig	·	
regulation of the ISM. Date: Place: Enclosures: [Please tice] 1. Bank Draft / ISM Canada	ck against each enclash Receipt of Rs.	above are correct and that	Sig	·	
regulation of the ISM. Date: Place: Enclosures: [Please tice] 1. Bank Draft / ISM Ca. 2. Attested copies of m.	ck against each enclash Receipt of Rs. Inarks sheets / grade	above are correct and that losed item]	Sig	·	
regulation of the ISM. Date: Place: Enclosures: [Please tice	ck against each enclash Receipt of Rs. In arks sheets / grade	above are correct and that losed item] 1000/- towards application Cards of the following	Sig	·	
regulation of the ISM. Date: Place: Place: Enclosures: [Please tice 1. Bank Draft / ISM Ca 2. Attested copies of m (a) Bachelor Degree(s) (b) Post-graduate Degree	ck against each enclash Receipt of Rs. In arks sheets / grade & DOB Certificatoree(s)	above are correct and that losed item] 1000/- towards application Cards of the following	Sig	·	
regulation of the ISM. Date: Place: Place: Enclosures: [Please tice 1. Bank Draft / ISM Ca 2. Attested copies of m (a) Bachelor Degree(s) (b) Post-graduate Degree	ck against each enclash Receipt of Rs. In arks sheets / grade & DOB Certificate (s) d Research work (c)	losed item] [1000/- towards application Cards of the following e i.e. Matriculation or +2	Sig	·	

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5. Bio-Data of External Guide.

7. Any other relevant information.

6. Justification of two guide(s) from the same Department, if any.

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HALF YEARLY PROGRESS REPORT (FULL-TIME RESEARCH SCHOLAR)

Period	From	T	o'	

1	Name [in capital letters]	
2	Designation (e.g. JRF / Project Fellow /	
	Research Fellow etc)	
3	Department	
4	(a) Period of appointment:	For years w.e.f.
	(b) Extension (if any with date)	
5	Scheme under which appointed:	
6	Registration No with date of registration:	
7	Name of Supervisor (s):	
8	Title of the research thesis:	
9	Books / Journals consulted : [If more space	
	required, please attach a separate sheet]	
	(i) At ISM	
	(ii) Other Places	
10	Laboratory work done (If more space	
	required, pl attach a separate sheet)	
	(i) At ISM	
	(ii) At other places	
11	Field work done, if any:	
12	Courses attended and examination passed:	
13	Classes taken/other Academic work done:	

14	Seminar Presented / attended :	
15	Research Paper(s) Published/Presented	
	(Use Separate Sheet, if needed)	
16	Leave taken during the period:	
17	Whether writing of thesis commenced:	
18	Percentage of research work completed:	
	(as per your assessment)	
19	Fee for the period paid / exempted :	
20	Any other particulars that you may like to	
	report.	
Date		Signature of the Candidate
The 1	Progress of research of Shri/Ms	during the period under
revie	w has been not satisfactory/ satisfactory/good	l/very good/excellent.
Date		ture of External Supervisor (if applicable)
The 1	progress of research of Shri/Ms	during the
perio	d under review has been not satisfactory/ sati	sfactory/good/very good/excellent.
Date		Signature of Internal Supervisor(s)
Reco	ommendation with suggestions (if any) to be c	ommunicated to the candidate*.
Date	:	Signature of Chairperson of DSC

^{*} Copy of the report to be given to the candidate, Supervisor(s) and the Academic Section.

INDIAN SCHOOL OF MINES DHANBAD- 826004

ANNUAL PROGRESS REPORT (PART- TIME RESEARCH SCHOLAR)

Period	From	To)

1	Name [in capital letters]	
2	Designation	
3	Organisation where employed:	
4	Registration No with date of registration:	
5	Department	
6	Name of Supervisor (s):	
7	Title of the research thesis:	
8	Books / Journals consulted : [If more space	
	required, please attach a separate sheet]	
	(ii) At ISM	
	(ii) Other Places	
9	Laboratory work done (If more space	
	required, pl attach a separate sheet)	
	(i) At ISM	
	(ii) At other places	
10	Field work done, if any:	
11	Courses attended and examination passed :	
12	Seminar Presented / attended :	
13	Research Paper(s) Published/Presented	
	(Use Separate Sheet, if needed)	
14	Whether writing of thesis commenced:	

15	Percentage of research work completed :	
	(as per your assessment)	
16	Fee for the period paid / exempted :	
17	Any other particulars that you may like to	
	report.	
Date	:	Signature of the Candidate
The l	Progress of research of Shri/Ms	during the period under
revie	w has been not satisfactory/ satisfactory/good	l/very good/excellent.
Date	Signa	ture of External Supervisor (if applicable)
The p	progress of research of Shri/Ms	during the
	orogress of research of Shri/Msd under review has been <i>not satisfactory/ sati</i>	
	_	
	d under review has been <i>not satisfactory/ sati</i>	
perio Date	d under review has been <i>not satisfactory/ sati</i>	sfactory/good/very good/excellent. Signature of Internal Supervisor(s)
perio Date	d under review has been <i>not satisfactory/ sati</i>	sfactory/good/very good/excellent. Signature of Internal Supervisor(s)

^{*} Copy of the report to be given to the candidate, Supervisor(s) and the Academic Section.

Appendix - IV

FORMAT OF THESIS

Binding of	Cover	Soft Binding
thesis	00701	Soft Billiang
	Colour	Light Blue
	Margin Top	4 Cm
	Margin Bottom	4 Cm
	Margin Left	4 Cm
	Margin Right	2 Cm
	Printing on the	Title of the thesis in capital letters (24 font size) Times New
	Тор	Roman
	Printing in the	Name of the candidate in capital letters (18 font size) Times
	middle of cover	New Roman
	Center	Logo
	Printing on	THESIS
	Bottom	Submitted to INDIAN SCHOOL OF MINES, DHANBAD
		for the award of the Degree of Doctor of Philosophy Month, Year
	Printing on the	The binding edge of the jacket should contain the name of the
	Binding edge	candidate, year and thesis title.
Inside of thesis	Printing	In 1 ½ space, Font 12 Times New Roman, Both Side Printing
	Margin Top	3 Cm
	Margin Bottom	3 Cm
	Margin Left	4 Cm
	Margin Right	2 Cm
	Quality of paper	Good quality (bond/maplitho)
	Size of paper	29 cms long, 23 cms wide
	Contents	(i) Printing of cover to be repeated on first page
		(ii) Certificate of the supervisor(s)
		(iii) Certificate regarding Classified data
		(iv) Copyright Transfer
		(v) Acknowledgement
		(Thesis not to be dedicated to any relative)
		(vi) Contents
		(vii) List of Tables
		(viii) List of Figures
		(ix) List of symbols and abbreviations, if any.
	Abstract	To convey briefly the content of the thesis to draw attention to
		all new information and to the main conclusions. It should be
		factual and should be suitable for copying, quoting or indexing
	01	by information services.
	Chapters	The text should have suitable Chapter number, titles and sub-
		titles with pages numbered at the top right hand corner 1 cm
		from top and 1 cm from right edge. First chapter should be 'Introduction' and the last chapter should be 'Summary and
		Conclusions'
	References	Either the Harvard system, in which the names and dates
	1/6161611662	given in the body of the text and the references to be
		alphabetically listed at the end of the thesis or a system in
		which numbers are inserted in the text e.g. [3], and references
		to those are given at the end of the thesis as in BIS system.

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Signature of the Author