



Handbook

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General Academic Timeline

| Sl. No | Activity | January Session | August Session |
|--------|-----------------------|---|---|
| i) | Enrollment | 2 nd Monday–Tuesday of January | 2 nd Monday–Tuesday of August |
| ii) | Session begins | 2 nd Friday of January | 2 nd Friday of August |
| iii) | Mid Semester Exams | 2 nd week of March (Monday to Saturday) | 2 nd week of October (Monday to Saturday) |
| iv) | Session Ends | 1 st Friday of May | 1 st Friday of December |
| v) | End Semester Exams | 2 nd Week of May (Monday to Friday) | 2 nd Week of December (Monday to Friday) |
| vi) | Grades Finalization | 2 nd Friday of June | 1 st Monday of January |
| vii) | Publication of Grades | 3 rd Friday of June | 2 nd Monday of January |

Academic Requirements for Ph.D and Integrated M.Tech-Ph.D programmes

In the following, course of one credit is equivalent either 1 lecture hour per week (minimum 14 contact hours) or 2 laboratory hours per week (minimum 28 contact hours) or combination thereof for the duration of the semester.

Minimum Residence, Maximum Duration and Academic Requirements

The following table lists the minimum residence, maximum duration allowed in the program and credit requirements for graduation in the various programs:

To satisfy the "Minimum Residence" a student must participate in the academic programs without any break; exception will be made only if the student is on authorized leave. "Maximum Duration" is counted from the student's first enrollment date. CGPA will be calculated on the basis of all courses taken by the student as the case may be. For any alteration in the maximum/minimum duration for completion of course work of any student, the thesis supervisor should send a specific request to the Dean of the respective faculty through the AcSIR Coordinator of the laboratory with proper justification. After evaluating the justification provided, the Dean may or may not accept the request. The decision of the Dean will be communicated to the thesis supervisor through the Coordinator.

| Program | Number of Credits | | | | | | Min. Program Residence (Semester) # | Period of Completion | |
|---|---------------------------------------|------------------|----------------|----------------------|---------------------------|-------|-------------------------------------|----------------------|---------|
| | Course work | Project Proposal | Review Article | Research/ Project | CSIR-800 Societal Project | Total | | Normal/ Minimum# | Maximum |
| M.Tech | 32 | -- | -- | 32 | -- | 64 | 4 | 4 sem. | 6 sem. |
| Integrated Ph.D (Engg) * | 4 | 2 | 2 | Completion of thesis | 4 | 12 | 3 | 6 sem. | 8 sem. |
| M.Tech (Industry Sponsorship) | 32 | -- | -- | 32 | -- | 64 | 4 (2 sem. on campus) § | 4 sem. | 6 sem. |
| Ph.D (Sciences)** | 12 | 2 | 2 | Completion of thesis | 4 | 20 | 4 | 8 sem. | 10 sem. |
| Ph.D (Engg)** | 12 | 2 | 2 | Completion of thesis | 4 | 20 | 4 | 8 sem. | 10 sem. |
| Ph.D Sciences (Industry Sponsorship)** | 8 | 2 | 2 | Completion of thesis | 4 | 16 | 8 (1 Sem. On campus) § | 8 sem. | 10 sem. |
| Ph.D Engg (Industry Sponsorship)** | 8 | 2 | 2 | Completion of thesis | 4 | 16 | 6 (1 Sem. On campus) § | 6 sem. | 8 sem. |
| Direct Ph.D Sciences | 20 | 2 | 2 | Completion of thesis | 4 | 28 | 8 | 8 sem. | 12 sem. |
| Direct Ph.D Sciences (Industry Sponsorship) | 20 | 2 | 2 | Completion of thesis | 4 | 28 | 8 (3 Sem. On campus) § | 8 sem. | 12 sem. |
| For students not qualified for Ph.D under Direct Ph.D Sciences for Regular Students | | | | | | | | | |
| MS (Res) | 20 | 2 | 2 | 40 | -- | 64 | 6 | 6 sem. | 8 sem. |
| Integrated (Direct) Ph.D in Engineering for candidates with: | | | | | | | | | |
| BTech + Gate/NET OR BTech/MSc + National level fellowship/ 1 st Rank in University | 24 (M.Tech level) + 4 (Ph.D level) | 2 | 2 | Completion of thesis | 4 | 36 | -- | 10 sem. | 12 sem. |
| BTech + 2 Year experience as PA/CSIR-SRF/ Industry Sponsorship | 16 (M.Tech level) + 4 (Ph.D level) | 2 | 2 | Completion of thesis | 4 | 28 | 10 (3 Sems on campus) § | 10 sem. | 12 sem. |

* Over and above the credits and other requirements of the Masters (M.Tech) Program

** Exceptional candidates with Bachelor's degree will be eligible for direct admission to the Ph.D program. They will have to appear and qualify through the admission process. They may also be eligible for exemption from additional credits as decided by the respective DAC of the student after admission.

Depending on the merit of the case this may be reduced/ waived as per Clause No. 7.5.3.

§ Semester on campus for completion of course-work

Details of Course Work to be taken by students

- For Ph.D program, 4 levels of course (i.e. 100, 200, 300 and 400 levels) will be offered under different faculties of study.
 - Level-100: Core/Preparatory Courses (some are Compulsory)
 - Level-200: Major Courses
 - Level-300: Advanced/Elective courses
 - Level-400: Review Article, Project Proposal and CSIR-800 Societal Project)

Any laboratory may feel free to impart additional credits at any level to better suit their purpose.

- Following 400 level courses are mandatory for the Ph.D program (in Science or Engineering) and for Integrated Ph. D (after completion of the Master part of the program credit requirements), which are to be submitted before Open Colloquium:
 - a. **One Project Proposal** to be prepared before comprehensive examination by selecting topics of high relevance and novelty, and will have state-of-the art review, methodologies, recommendations etc. **(2 credits)**. The suggested format of the proposal is similar to the format of the projects funded under CSIR- Extra Mural Research scheme. This course will not be graded and shall be given Satisfactory (S) or Unsatisfactory (X) remark.
 - b. **One Review Article** on the research area undertaken by the student **(2 credits)**. This course will not be graded and shall be given Satisfactory(S) or Unsatisfactory (X) remark.
 - c. Six–Eight weeks have to be dedicated on a project concerned with societal/rural issues under the **CSIR-800 Programs (4 credits)**. This needs to be completed before Open Colloquium. Guideline for conducting the CSIR 800 Societal Project is enclosed as **Annexure I**. This course will not be graded and shall be given Satisfactory (S) or Unsatisfactory (X) remark.

In general the students will be enrolled twice a year, in August and January. Once the students are enrolled they are generally expected to complete the 12 credits within the 2nd semester. Only after completion of a minimum requirement of 12 credits and all compulsory courses (excluding 400 level courses), the students will be allowed to undertake the **Comprehensive Viva examination** and on successful completion of this exam they will be **formally registered for Ph.D in AcSIR**.

Student should inform the Coordinator the courses he/she is crediting/auditing within four weeks after the start of semester.

Courses on offer at any AcSIR/CSIR institute can be availed by the students to fulfill the academic course requirement. For a student to take one or more courses on offer at other institutes, the thesis supervisor of the student shall send a request through the Coordinator of his/her institute to the Coordinator of the Institute offering the course. In such cases the credits obtained by the student in that particular course will be communicated by the Coordinator of the institute where the course was undertaken to the Coordinator of the parent institute.

Examination & Evaluation procedures for Course work

- Continuous evaluation procedure will be followed through-out the semester through class test, quiz, assignment, seminar/presentation on special topic, midterm and end term examinations etc.
- End semester examination shall have maximum weightage of 40%.
- Depending on the nature of the subject, faculties may opt for open or close book examination.
- For laboratory courses, the candidates shall have to submit laboratory reports to the course coordinator. Depending on nature of the laboratory work, the coordinator can opt for a viva-voce at the end.
- The grading system to be followed for course work is illustrated below:

| Letter Grade | Performance | Numerical Value |
|--------------|-----------------------------------|-----------------|
| A+ | Outstanding | 10 |
| A | Excellent | 9 |
| B+ | Very Good | 8 |
| B | Good | 7 |
| C+ | Fair | 6 |
| C | Poor | 4 |
| F | Very Poor | 2 |
| I | Incomplete* | 0 |
| S | Satisfactory (for Audit course) | Not Applicable |
| X | Unsatisfactory (for Audit course) | Not Applicable |

* "I" grade shall be given to students who have (i) Not Attended Classes; and/or (ii) Not been evaluated. This implies repeating the full course and appearing in the examination so that it could be considered towards final grade calculation.

SGPA (Semester Grade Point Average) = {Sum of (Course credit × Numerical value of course grade)} / Total course credits earned in the semester

CGPA (Cumulative Grade Point Average) = {Sum of (Course credit in all passed courses × Numerical value of course grade)} / Cumulative credits earned

- **Brief philosophy of the letter grades:**

$$CGPA = \frac{\text{Summation of } Ci Gi}{\text{Summation of } Ci}$$

Where Ci represents credit points and Gi represents grade points. Based on the philosophy, letter grade does not allow the fractions. The grades have to be within the ranges of A+, A, B+, B, C+ in order to pass the course. Please note that at AcSIR "C" is a fail grade. Therefore, while mapping the absolute marks onto the letter grades the investigator in-charge has to be

sure what grade he wants to award. One student may get 55 or 58 (out of 100) as his/ her actual marks, but the onus is on the Instructor to declare whether the candidate is C+ or C. The Instructor has the liberty to declare 58 as C+ and he has to be convinced that the candidate deserves a C+ grade. Likewise, the investigator in-charge has to assign A+, A etc based on the performance of the students in the course. Ideally, the instructor has to draw a histogram based on the performance (absolute marks) of the students in the course. Then he has to decide what should be the minimum pass mark for that course. He/ she has to then decide on a range (say minimum + X marks, X being 6 or 7 or 8 marks) and assign that range as C+, the immediate upper range (again he/ she has to decide the range based on the trend of the histogram) should be assigned a letter grade of B and so on. If the instructor sees that nobody is truly outstanding in the histogram, he need not even award A+ in that course for that particular batch of students. The Instructor is free to choose the minimum pass marks (and hence the pass grade is mapped there) depending on the standard of the examinations/ assignments and the standard of performance of the students in the course.

The numerical interpretation of the letter grade has only relation to the calculation of SGPA and CGPA. But letter grade cannot be interpreted as a fractional number. For example, if an Instructor has awarded B+ grade to somebody, then the student earns full 8.0 grade point on that course. The grade point cannot be 8.2 or 7.8. The grade point will be multiplied by the corresponding credit of the course and then SGPA or CGPA will be calculated based on the formula given above.

Whenever a large number of student's grades in a course fall on either extreme of spectrum, they shall be discussed/reviewed by the concerned course instructor and Lab Coordinator in consultation with the Lab Director.

- **A student needs to have a SGPA of over 6.0 in each semester and a CGPA of over 6.5 from second semester onward for continuation.** Minimum grade point to be earned to pass any subject is 6.0.
- **The SGPA and CGPA shall be calculated to two decimal places.**
- The course coordinator shall submit the grades of the students as per the academic calendar.

Determination of Distinction and First Class Grade

- Distinction \geq 8.00 CGPA
- First Class \geq 7.00 CGPA
- Pass Marks \geq 6.50 CGPA

Conducting "Re-test":

Re-test can be taken in two situations:

- For passing a course i.e. course grade is $<$ 6.00 ('C' or 'F' grade, but not 'I' grade).
- For improvement in SGPA/CGPA

The re-test can be taken without payment of any fee.

Final grades obtained after taking re-test shall only be mentioned on the final grade card.

Examination & Evaluation procedures for Thesis work

For Master's Thesis work:

- a. The thesis Oral Examination Board (OEB) shall be constituted by the Director of the laboratory on recommendation of Coordinator and thesis supervisor for each student.

The OEB will have minimum three members:

- One examiner from same field of research,
- One examiner from areas other than the candidate's field of research and
- The thesis supervisor(s).

The dean approves the committee recommended and senate chairman subsequently ratifies it. The communication in this regard would be done by the Lab Coordinator.

- b. The candidate, at the earliest, would be allowed to submit the thesis **two weeks before the completion of the fourth semester** (middle of April) with recommendation of the thesis supervisor(s).
- c. The last allowable date for submission of the Master's Thesis is **15th May of every calendar year**.
- d. The candidate shall present his thesis work physically in the colloquium (Open Seminar) in presence of the OEB members.
- e. The notification of the open seminar would be circulated by the thesis supervisor in consultation with members of the OEB.
- f. The candidate is considered to have passed the oral examination if all the OEB members consider that the performance of the candidate is satisfactory with award of grades C+ or above.
- g. Based on the presentation and responses to the questions raised during oral examinations, the committee may recommend re-submission of the thesis at most once after incorporating the suggestions made by the committee for evaluation.
- h. In the rescheduled oral examination, the OEB must declare the candidate either to have passed or failed with award of appropriate grades. There shall not be any recommendation for third oral examination.
- i. The grading system to be followed during evaluation of thesis work for Masters is illustrated below:

| Letter Grade | Performance | Numerical Value |
|--------------|-------------|-----------------|
| A+ | Outstanding | 10 |
| A | Excellent | 9 |
| B+ | Very Good | 8 |
| B | Good | 7 |
| C+ | Fair | 6 |
| C | Poor | 4 |
| F | Very Poor | 2 |

- j. Last date for evaluation of the Masters project at Lab end is **15th June of every calendar year**.
- k. Last date for submission of all results to AcSIR by the Coordinator is **30th June of every calendar year**.

For Ph.D Thesis work:

Doctoral Advisory Committee (DAC)

The role of the DAC is as under:

- **Course selection:** Academic courses to be taken should be selected in consultation with DAC. In absence of DAC, proposed PhD Supervisor shall advise on the courses to be taken by the student and inform the Coordinator. The DAC will subsequently need to review and ratify this choice of courses.
- **Monitoring the progress of student.**

Each student will have a Doctoral Advisory Committee (DAC).

- a. AcSIR Laboratory Coordinator in consultation with the Director of the laboratory will constitute the Doctoral Advisory Committee for each candidate as soon as the thesis supervisor(s) is assigned and no later than the 3rd Semester, with approval of Dean & subsequent ratification by Senate Chairman.
- b. Composition of the DAC:
- Thesis supervisor(s),
 - Two members from the same research area as recommended by the supervisor(s) and
 - One member nominated by the Director of the Institute from different field of research.
- c. The doctoral advisory committee will review the progress of the research work on continuous basis and meet at least once in each year (preferably, it should meet twice a year *i.e.* at the start of each academic semester). They shall advice on the next course of action. The committee also recommends when to submit of the thesis.

- d. In exceptional cases, a **minimum of two months gap has to be mandatorily maintained between any two consecutive DAC meetings.**

In general the functions of the DAC are outlined in the table below:

| DAC No. | Objective of DAC | Time frame |
|---------|---|---|
| I | Discussion on the topic of research to be pursued, questions to be addressed etc. | Before the end of Third Semester |
| II | Finalization of Ph.D proposal | Within 6 months of the comprehensive exam |
| III | Monitoring the progress of the student | Before the end of 6 th Semester |
| IV | Ph.D colloquium (open seminar) | Minimum two weeks before submission of thesis |

- e. DAC meeting proceedings are to be done in the approved formats of AcSIR
- f. The Lab Coordinators shall send the proceedings of DAC meetings and PhD Comprehensive Examination reports to the respective Associate Dean for verification.
- g. All the verified reports have to be forwarded to the AcSIR office for archiving.

Comprehensive Examination

- a. A student is eligible to appear at the Comprehensive Examination only after he/she has successfully completed the compulsory course requirements (minimum 12 credits) with more than the minimum CGPA.
- b. Based on the proposal of the supervisor(s), the Comprehensive examination board would be formed for each student and communicated to AcSIR Office.
- c. The Comprehensive examination board shall include
- DAC members
 - Director/Director's nominee who has demonstrated ability in guiding students
- d. The candidate in consultation with the DAC shall appear for oral Comprehensive Examination in between 2nd and 5th semester (after completion of DAC I).
- e. If the candidate fails to clear the Comprehensive Examination in two attempts, his/her enrollment for Ph.D would be cancelled. However, the candidate is eligible for MS (by Research) and will have to go through the prescribed process of MS (by Research).

- f. The Comprehensive examination will consist of presentation by the candidate followed by rigorous oral examination. The recommendation of the board would be in the form of “Cleared” or “Not Cleared”.
- g. Student shall have to clear the required AcSIR tuition fees before taking comprehensive examination.

Ph.D Thesis Submission & Evaluation

Pre-requisites of Thesis Submission

- a) The Ph.D thesis can be submitted any time within six months after clearing the DAC IV through Open Colloquium.
- b) Submission beyond 6 months will require Dean’s approval for an extension period not beyond additional 6 months on the basis of satisfactory reason for the delay. The permission, if granted, should be reported to the Senate.
- c) If the thesis is not submitted within one year of clearing the Open Colloquium, as mentioned above, the registration of the student will be automatically cancelled. The student can re-register with permission from the Chairman, Senate. In that case, submission of thesis will follow normal cycle of minimum period of residency.
- d) Publication/ acceptance of minimum one paper in peer reviewed journal before submission of thesis.
- e) Thesis should include a Certificate (format attached as **Annexure-III**).

Evaluation of Thesis

- a) A Ph.D thesis shall be first evaluated by a **Thesis board** and thereafter by an **Oral Board**.
- b) **Summary of work done (Ph.D synopsis)**: The student will submit a softcopy of the Synopsis to the Lab Coordinator on recommendation of the DAC and after incorporation of suggestions, if any.
- c) The Summary of Work Done normally should be written based on the following points:
 - i. A very brief introduction with a succinct link to the available literature
 - ii. Statement of problem
 - iii. Methodology(s) used
 - iv. Sample Results with interpretation
 - v. Citation of any publications resulting from the thesis work

- d) Thesis Supervisor shall ensure that the proposed panel of examiners of thesis board (**normally eight experts** from the relevant field, along with their consent to evaluate the thesis) is national/international in its composition including no more than one examiner from the same state and none from the institute from where the thesis is being submitted.
- e) The student will have to submit a list of documents along with Synopsis (i.e. summary) of the study completed for the thesis to the AcSIR Coordinator of the concerned Lab immediately after the Ph.D colloquium/Open seminar along with the recommendation of the DAC to submit thesis (DAC IV report).
- f) List of documents to be submitted to the Coordinator for further processing are:
- i. Thesis Submission Checklist
 - ii. All Grade cards including the Cumulative Grade card
 - iii. DAC Reports including Comprehensives Report
 - iv. CSIR 800 Project
 - v. Project proposal and Review Article
 - vi. List of Publication-Semester wise
 - vii. Synopsis of Thesis (Summary of work done)
 - viii. Thesis Board (along with consent of examiners)
 - ix. Tuition fees submission details
 - x. Thesis submission fee details
- g) Thesis Supervisor shall ensure that the proposed panel of examiners of thesis board shall have optimum mix of examiners from inside and outside the state and none of the examiners shall be from the same Institute.
- h) Lab Coordinator shall submit the thesis documents to AcSIR Office, which will then send these documents to Associate Dean of respective faculty to check for correctness of the document.
- i) Associate Dean shall verify the documents received and revert to respective AcSIR Coordinator if modifications/ corrections are required.
- j) Associate Dean shall forward Synopsis of Thesis, Publication List & List of Thesis Examiners in their correct formats to the Dean for his/her recommendation. Any updated document will have to be sent to AcSIR Office for maintaining the records.
- k) Dean shall mark the order of preferences of potential examiners for Thesis examination and recommend the names to the Chairman, Senate for his approval.
- l) Decision of the Chairman, Senate will be communicated to the Coordinator by AcSIR Office.
- m) At this stage, the approved preference of examiners is to be kept strictly confidential.

- n) A softcopy of the thesis should be submitted by the student to the Coordinator of the Laboratory who in turn will send it to the members of the Thesis Board as approved by the Chairman, Senate and communicated from AcSIR Office, to examine the thesis within 8 weeks.
- o) The members of the Thesis board will send the reports to the Coordinator with a copy to the Thesis Supervisor.

On non-receipt of thesis report by 8 weeks, the thesis should be sent to the next examiner(s) in the list following same procedure.

As soon as two reports are received from any two of these examiners, the decision should be made based on those reports only, without waiting for additional report(s). If, however, additional reports are available about the same time, then all the reports will be considered for examination.

All the examiners will be paid honorarium for examining the thesis.

- p) Based on the report of the thesis examiners, the student should incorporate the corrections/alterations suggested. The DAC shall ensure that all suggested corrections/alterations has been incorporated in the thesis and recommend the next course of action i.e. recommendation for holding oral examination or rework.
- q) The committee may recommend re-submission of the thesis at most once after incorporating the suggestions made by the committee for evaluation.
- r) Thesis oral examination board (OEB) shall be constituted by the Senate Chairman on recommendation of the thesis supervisor

The OEB will have minimum three members

- One external member (preferably one of the thesis examiners),
 - One DAC member and
 - Thesis supervisor(s)
- s) The Ph.D candidate shall present his research work physically in presence of the above OEB members.
 - t) Under compelling circumstances, the candidate could also appear at the viva voce exam electronically with prior approval from the Senate Chairman.
 - u) The OEB will assess the student's work based on the presentation and responses to the questions raised during oral examinations.

- v) The candidate is considered to have passed the oral examination if all the members except at the most one member consider that the performance of the candidate is satisfactory.
- w) In case of non-satisfactory oral examination, in the rescheduled oral examination, the OEB must declare the candidate either to have passed or failed. There shall not be any recommendation for third oral examination.
- x) It is expected that the entire process after thesis submission leading to completion of the oral examination shall be completed within 8-12 weeks.
- y) The viva form signed by all the OEB members has to be communicated to the Dean. The Dean, after reviewing the viva form, will forward the same to the Chairman, Senate for approval and award of the Provisional Degree.
- z) On ratification by the Senate and the Board, the successful candidate becomes eligible for receiving the Ph.D. degree from AcSIR.

Format of the thesis

- a) A CD containing the entire thesis should be submitted to the coordinator of the laboratory, who in turn shall send it to the members of thesis board for evaluation. In case a hard copy is desired by the Examiner then same shall be provided to him/ her.
- b) Based on the reports of the thesis board the candidate should incorporate all the suggestions and corrections as recommended by the thesis board and submit two hard copies of the thesis to the coordinator.
- c) One copy of the thesis will be archived at the library of the Institute, and the other will be with the thesis supervisor for records. A CD will be sent by the coordinator to AcSIR office for records.
- d) It is recommended that the thesis should be paperback and printed on both sides of a page.
- e) The cover of the thesis shall contain the title of the thesis, name of the student, name of the supervisor(s) name of the degree for which the thesis is submitted, AcSIR logo and name of the institute(s) where the work was undertaken. The format of the Thesis Cover page is given below as **Annexure II**.
- f) Apart from summary of the thesis, review of literature and chapters related to the work done by the student, it is also recommended that a summary (not exceeding two pages) be incorporated in the thesis in the mother tongue of the student or in or in one Indian language preferred by the student or in Hindi as the case may be intended for a layperson to understand the gist of the work done. This summary will be compiled by the respective CSIR laboratories in the form of a compendium for further dissemination of information to various schools, colleges etc. AcSIR will also have a copy of the compendium for records.

Provisional Certificate

The provisional certificate shall be awarded by the Associate Director (Academic) after successful completion of the Masters/Ph.D oral examination. The final degree shall be awarded at the time of convocation of the Academy as per the relevant Ordinance.

Fees and Deposits

The student will have to pay necessary fees as fixed for the concerned programme from time to time by AcSIR as per the terms and conditions notified.

Tuition Fee for the Ph.D in Science and Engineering is Rs. 1000/- per month.

The fees for M.Tech is Rs. 24,000/- for one semester.

PhD thesis submission fees of Rs. 5000 for Regular Students and Rs. 25000 for Sponsored candidates are to be submitted before submission of synopsis.

Guidelines for CSIR-800 Project for AcSIR Ph.D. students

The major objective of the CSIR-800 project is to create and nurture a sense of social consciousness and responsibility by participation in Science & Technology activities relevant to the nation.

Background:

The objective of the Academy of Scientific and Innovative Research (AcSIR) is to disseminate advanced knowledge in science and technology, particularly in emerging inter-disciplinary and multi-disciplinary areas to create socially conscious, highest quality personnel. The ultimate aim is to create human resources who will promote research in science and technology having a bearing on social economic, cultural, intellectual and academic welfare of the people of our nation. Keeping this in view AcSIR has mandated that students aspiring to obtain a Ph.D. degree from the academy undertake a 6-8 weeks project concerned with societal/ rural issues under the CSIR-800 Programs (4 credits). CSIR-800 has been launched by CSIR with the aspiration of inclusive growth and improved quality of lives of 800 million fellow Indians through S&T interventions that are socially and economically relevant.

CSIR 800 focus areas:

The two major focus areas of CSIR-800 are to enhance income and to improve the quality of life of the 800 million people of India. Some typical examples are as the following:

Enhancing Income of the downtrodden

- Value added Agriculture
- Waste to Wealth
- Energy efficiency

To Improve Quality of Life

- Low cost housing
- Affordable health care
- Potable Water supply
- Sustainable energy
- Means of protecting environment

Guidelines for CSIR-800 linked AcSIR projects:

- Students shall select a scientific topic of social relevance and aligned with the focus areas of CSIR-800 and studying the problem in detail.
- Students shall try to find out solutions which are techno-commercially viable and have the potential to be scaled up to reach out to uplift the life of millions.
- It shall not be a mandatory requirement to live and work in the targeted areas, however, the ultimate objective of addressing societal problems shall not be compromised.

- The students shall select the project and the target area in consultation with his/ her DAC members.
- Students can participate in a CSIR-800 project either in his/ her Institute or any other CSIR Institute.
- In case the student wants to do the project in any other CSIR Institute, he/she should send a request to the coordinator of his/ her laboratory forwarded through the thesis supervisor well in advance. The coordinator in turn shall forward the request after taking the approval of the Director to the coordinator of the laboratory where the project is intended to be undertaken.
- The coordinator of the laboratory where the project will be undertaken shall obtain an approval from the Director of the laboratory which shall then be communicated to the student through the coordinator of the students parent Institute.
- The Institute where the project is to be undertaken shall provide all necessary infrastructural facilities and extend all possible help and cooperation to facilitate the student to complete the project.
- After carrying out the project, the student should submit a report and give a presentation highlighting the observations/results of the project and provide recommendations (if any). This will be reviewed by the Doctoral Advisory Committee (DAC) and the thesis supervisor (who is a member of DAC).
- In case the project was undertaken in other Institutes, the supervisor with whom the project was undertaken shall also be a member of the committee reviewing the project.
- The DAC can approve or ask for modification, if they are not satisfied with the report or Presentation. The committee may recommend re-submission of the project at most once after incorporating the suggestions made by the committee for evaluation.
- It is encouraged that the student prepares a shorter version of the report for societal usage highlighting the objectives of the project, observations and recommendations (if any). Such reports may be sent to the relevant officers (District magistrate/ BDO's etc) of the target area for information if felt necessary only after the approval of the Director(s) of the student's host Institute and where the student has undertaken the project work. Host Institute is expected to translate the short report into different **regional languages** that are spoken locally.

Format of Thesis Cover

Thesis Title

Thesis Submitted to AcSIR For the Award of
the Degree of
DOCTOR OF PHILOSOPHY
In (Name of Faculty of Study)



By
Name of the Candidate
Registration Number

Under the guidance of
Name of the Supervisor(s)

Name of the Institute(s) where the work was
done

