Regulations
For
Doctor of Science (D.Sc.)
R 2015

ANNA UNIVERSITY
CHENNAI 600 025
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1. **PREAMBLE**

1.1 The Doctor of Science (D.Sc.) is the highest degree of this University awarded in Science, Engineering & Technology.

1.2 The D.Sc. degree is awarded to a candidate whose unsupervised and scientifically documented published research outcome demonstrates substantial original contribution to the significant development of a particular area or field.

1.3 The degree may also be awarded honoris causa to eminent persons deemed to be worthy of the recognition by the University.

1.4 These regulations are applicable for candidates who have registered for D.Sc. degree from 1st January 2015 onwards.

1.5 The regulations are subject to modification from time to time by the Research Board of the University.

2. **ELIGIBILITY**

2.1 A candidate who has been awarded the Doctor of Philosophy (Ph.D.) degree of this University or equivalent degree from any other University may present himself/herself for the Doctor of Science (D.Sc.), provided that

i. Candidates should have sustained contribution of significant international recognition to a particular area as evidenced by publication in reputed and high impact journals

ii. He/she has done post-doctoral work in the area applied for D.Sc. for a minimum period of ten years, in which he/she should have at least five years of continuous service in University Departments / University Colleges / Colleges affiliated to the University or Industrial Units / R&D Departments which are recognized by the University to do research with the University or Candidates having previously obtained a degree through Anna University.

iii. Post-doctoral publications in high impact factor journals should be atleast 15 for Engineering & Technology specialization and 25 for Science specialization. Patent granted based on his/her post-doctoral research work shall be considered equivalent to publication. Publications shall be either single authorship or joint authorship.
When a candidate submits conjoint work, a satisfactory and verifiable statement with evidence must be provided establishing the significant contribution claimed.

vi. **h-index** should be at least 10 for **Engineering & Technology** specialization and 15 for **Science** specialization

v. Average citation should be at least 10 per publication listed in (iii)

2.2 D.Sc. applications shall be uploaded in the University website from the time of submission till the award examination, for comments, if any, about the contribution claimed by the candidate.

2.3 A candidate already having D.Sc. degree in a particular discipline is eligible to register for D.Sc. in another discipline after a gap of two years provided he/she satisfies the criteria in the regulation in that discipline.

2.4 A candidate whose application is rejected either by the D.Sc. Committee or by the examiners shall apply only after 3 years from the date of intimation.

3. **REGISTRATION**

3.1 The application form for the award of Doctor of Science (D.Sc.) shall be downloaded from the University Website cfr.annauniv.edu duly filled in and submitted within the stipulated period.

3.2 The candidate shall submit the application along with a report of maximum 50 pages of typed matter highlighting the original contributions in the area of D.Sc. Copies of research articles, patents, scientific reports, copy rights should be bound together along with the report giving appropriate references.

3.3 The candidate shall not enclose the publications which contain materials of their Ph.D. or supervised study. The candidate shall, however, indicate generally, in a preface to his/her D.Sc. report, such sources which led to the study and the extent to which he/she has availed himself/herself of the work of others; he/she also shall state in what respect his/her investigations led to the advancement of knowledge or otherwise of the subject dealt with.

3.4 The report shall be accompanied by a self declaration in the format given in Annexure I to assure that the report has not been submitted earlier in full or in part for the award of any supervised degree such as Master's degree or Ph.D. Degree, Diploma, Associateship,
Fellowship or other similar title in this or any other University of the concerned candidate or that of his co-authors and collaborators.

3.5 The completed form must be submitted with the processing fee of Rs.5000/- together with:

i. A curriculum vitae

ii. D.Sc. Report

iii. Proof for qualifications, experience, original scientific contributions in a specific area in terms of publications, patents, citation Index, Impact factor of the Journals, h index etc. as in Clause 2.1.

iv. An electronic copy of the list of publications arranged chronologically, grouped into the works of which the candidate is the sole author and conjoint work.

v. A panel of six internationally reputed leaders in the area of D.Sc. application with the list of their high impact contributions to the area

vi. Six sets prepared exactly as per Annexure II

3.6 The application along with the D.Sc. report shall be scrutinized by the D.Sc. Committee (for each specialization) whose composition shall be as follows:

a. The Director, Centre for Research (Convener)

b. The Director, Academic Courses /Senior Professor nominated by the Vice-Chancellor (Member)

c. Subject expert within the University (One Member)

d. Subject experts from outside the University (Two Members)

3.7 The D.Sc. Committee shall, on being satisfied with the candidate’s eligibility for the D.Sc. degree, recommend for registration. If the D.Sc. Committee determines that an application cannot proceed, a proportion of the prescribed fee shall be refunded.

3.8 The eligible candidate shall remit the Registration fee of Rs.50,000/-. 

3.9 If the D.Sc. Committee approves the application, it shall forward a panel of six examiners (leaders in the area/field with experience in evaluating highest degrees such as Ph.D. and D.Sc.) in the area of D.Sc. application to the Director (Research) to examine the candidate’s statement and publications.
4. **EVALUATION OF THE REPORT**

4.1 The report together with any other contributions and papers submitted shall be referred for adjudication to a Board of three examiners from different countries nominated by the Vice-Chancellor from the panel of examiners recommended by the D.Sc. Committee. The Vice-Chancellor if deems it necessary may also nominate the examiners from outside the panel.

4.2 The examiners shall evaluate the credentials of the candidate with respect to the veracity of the statements in the report and the impact of the original work in the area justifying the award of D.Sc. by rating it either “COMMENDED” or “NOT COMMENDED”. Each examiner shall independently forward their evaluation in a prescribed form along with detailed comments within three months.

4.3 The Director (Research) shall take appropriate steps to receive the evaluation reports from the examiners in time. If no response is received within 3 months, then the University shall automatically send the D.Sc. report to the next examiner nominated by the Vice-Chancellor.

4.4 If all the reports of the examiners are “COMMENDED” then the candidate is unanimously and unconditionally recommended for the award of the degree.

4.5 If one of the examiners does not recommend the award of the degree then the application shall be sent to a fourth examiner.

4.6 In the event of a report being rejected by two examiners, the application shall be rejected.

4.7 The reports of all the examiners shall be placed before the D.Sc. Committee for further action.

5. **AWARD OF D.Sc. DEGREE**

5.1 On receipt of the evaluation reports, the D.Sc. Committee shall meet within three months. The candidate shall make a presentation to the D.Sc. Committee open to faculty members and research scholars. The award of the degree shall be declared by D.Sc. Committee at the end of the presentation.

5.2 The candidate shall be awarded D.Sc. Degree under the Faculty of Civil Engineering/ Mechanical Engineering/ Electrical Engineering/ Information and Communication Engineering/ Technology/ Architecture and Planning/ Science and Humanities/
Management Sciences, with the approval of the Syndicate. The Faculty for the award of D.Sc. Degree shall normally be based on the Ph.D. of the candidate.

5.2 The candidate should submit the D.Sc. Report in A5 size in accordance with the prescribed format and specification. Soft copy of the D.Sc. report should be uploaded in the University website for University archives.

5.3 A candidate shall be permitted to submit a report for the D.Sc. Degree only once.

6. **POWER TO MODIFY**

Notwithstanding all that has been stated above, the Syndicate has the right to modify any of the above regulation from time to time.
ANNEXURE I
A typical Specimen of Declaration

<Font Style Times New Roman>

ANNA UNIVERSITY

CHENNAI 600 025

<Font Size 16>

DECLARATION

<Font Size 13>

I Dr. ............... hereby declare that the D.Sc. report entitled “…………………………………………..” submitted to the Anna University is a record of unsupervised post-doctoral research work done by me during xxxx to xxxx and the report has not previously formed the basis for the award of any degree such as masters degree or Ph.D. degree, Diploma, Associateship, Fellowship or other similar title to any candidate of any University.

Signature of the Candidate
ANNEXURE II

GUIDELINES FOR THE PREPARATION OF D.Sc. REPORT

The D.Sc. report should be prepared on good quality white paper preferably not lower than 80gsm. Double spacing should be used for typing the general text. The general text shall be typed in Font Style Times New Roman and Font Size 13. One or two Tables/Figures may be included at appropriate places in the text and they should conform to the margin specifications. All page numbers (Arabic numbers) should be typed without punctuation on the upper right hand corner 20 mm from top with the last digit in line with the right hand margin. The cover should be printed in black letters and the text for printing should be identical to what has been prescribed for the title page. The sequence in which the D.Sc. report should be arranged as follows:

1. Cover Page and Title page
2. Text divided into suitable Headings (numbered consecutively)
3. References

Standard A4 size (297mm x 210mm) bond paper may be used for preparing the copies. The report should have the following page margins:

<table>
<thead>
<tr>
<th>Margin</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top edge</td>
<td>30 to 35 mm</td>
</tr>
<tr>
<td>Bottom edge</td>
<td>25 to 30 mm</td>
</tr>
<tr>
<td>Left side</td>
<td>35 to 40 mm</td>
</tr>
<tr>
<td>Right side</td>
<td>20 to 25 mm</td>
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The report shall contain a maximum of 50 pages excluding reference section and printed on both sides. Report should be bound with black calico cloth and using flexible cover of thick white art paper. The cover should be printed in black letters and the text for printing should be identical to what has been prescribed for the title page. After the declaration of the D.Sc. Committee for the award of the degree, the Seventh copy of the D.Sc. report in A5 size with hard bound binding in white colour should be submitted. Soft copy of the D.Sc. report should be uploaded in the University website for University archives.
VIBRATION AND THERMAL ANALYSIS OF
6/4 POLE SWITCHED RELUCTANCE MOTOR

D.Sc. REPORT

Submitted by

SAROJA MUTHUSAMY N T

in partial fulfillment of the requirements for the degree of

DOCTOR OF SCIENCE

FACULTY OF ELECTRICAL ENGINEERING
ANNA UNIVERSITY
CHENNAI 600 025

JANUARY 2015
VIBRATION AND THERMAL ANALYSIS OF
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FACULTY OF ELECTRICAL ENGINEERING
ANNA UNIVERSITY
CHENNAI 600 025
JANUARY 2015
CONTACT DETAILS

The Director
Centre for Research
Anna University
Chennai 600 025.
Phone : 91-44-22357366/22350361
Fax : 91-44-22201213
Email : dirresearch@annauniv.edu / dirresearch@gmail.com