Ref. No. URC/01                                                                 18 October 2016

**THE MEMBERS OF THE UNIVERSITY RESEARCH COMMITTEE**

**Sub: First Meeting of the University Research committee to be held on Saturday, 28 October 2016 at 11:00 A.M. in the Conference Room, K.R.Mangalam, University, Gurugram.**

Dear Sir/Madam,

First Meeting of the University Research committee to be held on **Saturday, 28 October 2016** at 11:00 A.M. The Agenda and its supporting papers are sent herewith.

Please make it convenient to attend the meeting.

Yours faithfully,

Encl: As above.

Secretary

## THE MEMBERS OF THE RESEARCH BOARD AND THE INVITEES

Prof. R.K. Mittal - Chairman

2. Dr. Mukesh Parashar - Secretary

| | |
|---|---|
| 3. Prof Subhash C Gupta | 9. Dr. Krishna Kumar |
| 4. Prof Vijay Anand Dubey | 10. Dr. Ranjit Varma |
| 5. Prof (Dr.) Brijesh Kumar | 11. Dr. Jyotsna Sharma |
| 6. Prof Omana Antony | 12. Dr. Aashish Sharma |
| 7. Dr. Arun Garg | 13. Dr. Kumar Rajyavardhan |
| 8. Prof. Rajeshwar Swaroop Tyagi | 14. Ms. Kaveri Sharma |

**INVITEES**
   1. Prof K.K.Agarwal, Hon. Chancellor

# K.R. MANGALAM UNIVERSITY
Sohna Road, Gurugram – 122 103

**First Meeting of the University Research committee to be held on Saturday, 28 October 2016 at 11:00 A.M. in the Conference Room, K.R. Mangalam, University, Gurugram.**

## AGENDA

| Agenda No. | Agenda Details | Appendix No. | No of Pages |
|---|---|---|---|
| 01.01 | To welcome the University Research Committee (URC) welcome and understand the role of URC as per *Appendix* | 1 | 1 |
| 01.02. | To approve the "**REGULATIONS AND STANDARDS LEADING TO AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.) (Regulations for Ph.D. Programme)**" updated according to standards set by UGC (UGC Minimum standards and procedure for award & M.Phil./ Ph.D. Degree Regulations, 2016) as per *Appendix* | 2 | 14 |
| 01.03. | To approve the format and contents of final report to be submitted by students for course **PPHD905 LITERATURE SURVEY** as per *Appendix* | 3 | 6 |
| 01.04. | To approve the format for **Progress Report** to be submitted by students at the end of each semester as per *Appendix* | 4 | 7 |
| 01.05. | To report the approvals given by Chairman as per *Appendix* | 5 | 2 |
| | Any other matter with the permission of the Chair. | | |

# K.R. MANGALAM UNIVERSITY
Sohna Road, Gurugram – 122 103

**To welcome the University Research Committee (URC) and understand the role of URC.**

The URC has been announced vide notice no. KRMU/Admin/Circular No. 01A/2016-17 dated 9 Oct. 2016.

The Statutes of university u/s 25(a) define the Powers and Functions of the University Research Committee as:

Subject to the powers vested in the Academic Council and the Board of Management, the University Research Committee shall have the following powers:

(1) To advise the Academic Council on research funding policies and procedures in the University;

(2) To oversee the allocation of research funds to academic staff;

(3) To approve other applications for external research funding submitted by academic staff of the University;

(4) To review and report on the University's research activities;

(5) To report on its business to the Academic Council at such intervals as the Academic Council may require.

To approve the "**REGULATIONS AND STANDARDS LEADING TO AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.) (Regulations for Ph.D. Programme)**" updated according to standards set by UGC (UGC Minimum standards and procedure for award & M.Phil./ Ph.D. Degree Regulations, 2016)

The "REGULATIONS AND STANDARDS LEADING TO AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.) (Regulations for Ph.D. Programme)" were framed in 2015 while launching the Doctoral Research Program at the University, based on the UGC's Doctoral Programme Guidelines of 2009.

In 2016 UGC amended its Doctoral Programme Guidelines of 2009 and notified new updated standards as "UGC Minimum standards and procedure for award & M.Phil./ Ph.D. Degree Regulations, 2016". Accordingly, the Universities' "REGULATIONS AND STANDARDS LEADING TO AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.) have been updated*.*

The updated "REGULATIONS AND STANDARDS LEADING TO AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY (Ph.D.) (Regulations for Ph.D. Programme)" are given in the following pages.

# REGULATIONS AND STANDARDS

# LEADING TO AWARD OF

# DEGREE OF

# DOCTOR OF PHILOSOPHY (Ph.D.)

(Updated: September 2016)

# REGULATIONS AND STANDARDS LEADING TO AWARD OF DEGREE OF
# DOCTOR OF PHILOSOPHY (Ph.D.)

**APPLICABILITY:** These regulations shall apply to all programmes leading to the degree of Doctor of Philosophy (Ph.D.).

1.  The Research Programmes leading to Ph.D. degree shall be conducted through the Schools of the University subjected to the guidelines issued from time to time by the Academic Council (AC) of the university and under control of the concerned School. The research studies for Ph.D. shall be overseen by the University Research Committee (URC) through the respective School Research Committees (SRC).

2.  A Research student shall be required to pursue his/her research work under the guidance of approved supervisor/co-supervisor(s) and undergo the course work as specified. The SRC may also permit a research student to carry out a part of his/her research work outside the University at a Research Centre/Facility approved by the AC.

    Professionally employed personnel, such as working engineers, scientists and teachers, may be allowed to pursue Ph.D. on part-time basis. Such candidates are required to submit a "No Objection Certificate" from their parent organization/ department/employer stating that he/she is permitted to pursue research studies on a part-time basis and that his/her duties permit him/her to devote sufficient time for research. Part-time research programmes leading to Ph.D. may also be permitted to be undertaken by persons working in other universities/research centers with which a Memorandum of Understanding (MOU) has been signed for the purpose of research and consultancy.

3.  **ELIGIBILITY FOR ADMISSION**

    **3.1** A postgraduate degree or equivalent in the concerned subject from a recognized Indian University, or a Postgraduate degree approved by the Association of Indian Universities /UGC/AICTE, or any other equivalent degree in the relevant field, to the satisfaction of the Academic Council of the University, with not less than 55% marks in aggregate or its equivalent grade 'B' in the UGC 7-point scale (or an equivalent grade in a point scale wherever different grading system is followed).

    For an equivalent degree from a foreign educational Institution. The Intuition/ degree shall be accredited by an Assessment and Accreditation Agency, which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country for the purpose of assessing, accrediting or assuring quality and standards of educational institutions.

    **3.2** A relaxation of 5% of marks, from 55% to 50%, or an equivalent relaxation of grade, may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/Differently-Abled and other categories of candidates as per the decision of the Commission from time to time, or for those who had obtained their Master's degree prior to 19th

September, 1991. The eligibility marks of 55% (or an equivalent grade in a point scale wherever grading system is followed) and the relaxation of 5% to the categories mentioned above are permissible based only on the qualifying marks without including the grace mark procedures.

4. **ADMISSION CRITERIA & PROCEDURE**
The university may announce the admission to Ph.D. programmes of all the Schools along with indicating broad areas of specialization.

The Number of students admitted to any school will depend upon availability of facilities and will be decided by academic council from time to time.

**4.1** *The Admission Procedure***:** It will be a two-step procedure comprising of:
Step 1: Written Entrance Test

> The Entrance Test shall be qualifying with qualifying marks as 50%. The syllabus of the Entrance Test shall consist of 50% of research methodology and 50% shall be subject specific.

> Candidates who have qualified the GATE/SLET/UGC/GPAT/CSIR (JRF)/ NET/M.Phil. or any other national level test after graduation, may be exempted from the entrance test; however, interview is compulsory for all applicants.

Step 2: Interview

> The candidates are required to discuss their research interest/area through a presentation before a duly constituted School Research Committee.

> The interview/viva voce shall also consider the following aspects, viz. whether:

> 1. the candidate possesses the competence for the proposed research;

> 2. the research work can be suitably undertaken at the university;

> 3. the proposed area of research can contribute to new/additional knowledge.

**4.2** *The Criteria*: Admission will be based on aggregate of the following parameters:

a) Performance in the postgraduate degree

b) Performance in the written test for admission as described in 4.1 step 1 above.

> or

Scores/percentile in the GATE/SLET/UGC/GPAT/CSIR (JRF)/NET/M.Phil. or any other national level test after graduation, for those who have qualified in these examinations and are exempted from the written entrance test.

c) Performance in Interview. Based on the performance in the written test and/or the Scores/Percentile in the GATE/SLET/UGC/GPAT/CSIR (JRF)/ NET/MPhil or any other national test after graduation, candidates will be shortlisted for interview. The candidates are expected to be aware of the literature and issues in the area of their research interest.

**4.3** *Composition of the Interview Board*: For each school the interviews will be conducted by respective boards comprising of SRC and one subject expert to be nominated by the Vice Chancellor as Member.

In the case of international students, the written entrance test may be arranged online and subsequent interviews may be held through the video conference. In addition, the international students shall be required to submit two letters of recommendation.

**4.4** The University reserves the right to limit the number of candidates to be admitted to the University at any time. This decision would be guided by the resources and other facilities/fiscal constraints.

**4.5** Admissions may be conducted twice in a year i.e. in January/February and July/August Sessions.

**4.6** The names of the selected candidates shall be sent to the Vice-Chancellor for approval.

**4.7** Once approved by the Vice Chancellor, The successful candidates shall be informed and/or their names will be displayed on website/notice Board.

4.8 A successful candidate shall be allowed registration after he/she has paid the fees prescribed by the University.

## 5.    RESEARCH PLAN

5.1    Each student with a registration shall undertake course work as prescribed by the SRC for a minimum period of one semester. The course work shall be treated as pre-Ph.D. preparation. The course work details are given in section 8.

5.2    The course work is prerequisite for Ph.D. preparation and Research Plan can be submitted only after successfully completing the course work.

5.3    **Research Plan and Supervision**:
Every student shall pursue the research under the guidance of a supervisor and if needed, one or more co-supervisor(s). Supervisor and co-supervisor(s) for a student shall be cleared by the respective SRC and approved by Vice-Chancellor. The students are expected to contact the eligible faculty/visiting faculty/adjunct faculty from the university/approved research centers, in their respective area of specialization to discuss the research plan and the availability of faculty to supervise the research work. Every Ph.D. student is required to indicate his/her Ph.D. supervisor/co-supervisor(s) during first year. (Unless extended by the Vice-Chancellor) and inform the SRC accordingly and get the supervisor(s) approved. After the approval of the SRC, the same shall be sent to the Vice-Chancellor for approval.

5.4 (a) If the Supervisor/co-supervisor(s) proposed by the applicant are not approved, the student may be asked to suggest other name(s). In exceptional circumstances, supervisor/co-supervisor(s) may be assigned by the Dean with the concurrence of the student and the proposed supervisor, and with approval of the Vice-Chancellor. The student is expected to develop synopsis on the preferred research topic for Ph.D. work.

(b) A student can also choose his/her co-supervisor(s) from the adjunct/visiting faculty of the University.

## 6. REGISTRATION AS A STUDENT

6.1 After the approval of the Synopsis and the name of Supervisor/co-supervisor(s) decided, the case shall be submitted to the SRC for its consideration and approval.

If an approval is not accorded by the SRC, then such a research student/student may submit his/her case for fresh approval after presenting a fresh/modified synopsis and/or supervisor(s).

6.2 Every Registered student shall be required to renew his/her registration every semester beginning and pay this prescribed fee, to continue to be enrolled in Ph.D. programme, until the submission of Ph.D. Thesis.

## 7. SUPERVISOR / CO-SUPERVISORS

7.1 Any regular faculty of the University, who holds a Ph.D. degree, shall be eligible to be a supervisor/co-supervisor. One should have an established track record of relevant research work and he/she must also be involved in demonstrated research activities, consultancy assignments, technological advancements or other scholarly activities.

7.2 Any regular Professor of the University with at least five research publications in refereed journals and any regular Associate/Assistant Professor of the University with a Ph.D. degree and at least two research publications in refereed journals may be recognized as Research Supervisor/Co-supervisor.

Provided that in areas/disciplines where there is no or only a limited number of refereed journals, the above condition may be relaxed by Vice Chancellor for recognition of a person as Research Supervisor with reasons recorded in writing.

7.3 Only a full time regular teacher of the University can act as a supervisor. The external supervisors are not allowed.

However, Co-supervisor can be allowed in inter-disciplinary areas from other departments of the same institute or from other related institutions with the approval as described below.

7.4 Any other faculty/scholar, duly approved by the concerned SRC of the university, from its Approved Research Centre, or from another University, or from a public sector industry, or from other reputed established industry or institutions conducting research programmes, shall also be eligible to be appointed as a Co-

Supervisor, provided he/she holds a Ph.D. Degree and has an established record of research as described in Clause 7.1. Decisions of SRC in considering such Ph.D. Co-supervisors must be approved by the Vice-Chancellor.

7.5 Supervisor/Co-supervisor(s) may also be assigned on the recommendation of the SRC under circumstances such as, multi/inter disciplinary research work, retirement/leaving of approved supervisor/co-supervisor(s) or in the event of unavailability of the originally assigned supervisor/co-supervisor(s) due to any reason(s).

7.6 At any given time, a Professor shall not be supervisor of more than 8 (eight) Ph.D. students, an Associate Professor not more than 6 (six) students, and an Assistant Professor not more than 4 (four) students. However, in cases where faculty is retiring or leaving, the Vice Chancellor may decide to relax the norms on recommendation of the SRC.

If a student has co-supervisor(s) in addition to a supervisor, s/he would be counted as 0.5 for each supervisor and co-supervisor(s).

7.7 A Ph.D. seat under a supervisor shall deem to have fallen vacant only after the submission of the Ph.D. thesis and certified so by Controller of Examination.

7.8 In case of relocation of an Ph.D. woman scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the University provided all the other conditions in these regulations are followed in letter and spirit and the research work does not pertain to the project secured by the parent institution/supervisor from any funding agency. The scholar will however give due credit to the parent guide and the institution for the part of research already done.

## 8. CREDIT REQUIREMENT & PERFORMANCE MONITORING

### Course Work

8.1 Students who are registered for the Ph.D. degree programme will be required to take a minimum of 8 credits and a maximum of 16 credits, as per the recommendations by the SRC. The courses may be prescribed from the existing Masters Level or pre-Ph.D. courses at the university. The course work must be completed in a maximum period of **two** semesters from the date of the admission. If a student is not able to get the required minimum grades/CGPA, he/she may be allowed to reappear in the examination within 12 months as per the prevailing examination rules of the University.

8.2 Students should be encouraged to take courses such as "Communication Skills", "Research Methodology", "Statistical Methods for Analysis of Research/Experimental Data" etc. Students may be permitted to take courses in related and allied areas being offered by other Schools of the University.

8.3 Normally, within the credit limits prescribed in 8.1 above, a minimum of 12 credits course work shall be mandatory for all students admitted in the Ph.D. programs as per the following details:

(a) Research Methodology – 4 Credits (Core)
(b) Two courses, each of 4 credits, in the area of specialization/student Specific, as decided by the SRC.

However, SRC may prescribe additional credits/courses to be taken by a student based on his/her research intent/academic background, if so warranted.

8.4    The evaluation for each courses may consist of following components:

(i)     Continuous Assessment (Including Term Paper)
(ii)    Mid Term Exam(s)
(iii)   End Term Exam
(iv)   Comprehensive Viva Voice

8.5    A Ph.D. student has to obtain a minimum of grade 'B' in the UGC 7-point scale and 6 (six) CGPA in the course work in order to be eligible to continue in the programme.

If a student is not able to pass a course or get the minimum required CGPA, s/he will be required to repeat specific course or all courses, as decided by SRC.

8.6    Candidates already holding M. Phil. degree and admitted to the Ph.D. programme, may be exempted from the Ph.D. course work, on recommendation of SRC, by Vice Chancellor. All other candidates admitted to the Ph.D. programme shall be required to complete the Ph.D. course work prescribed.

## Progress and Performance Monitoring

8.7    Every research student shall report regularly to the Supervisor/Co-supervisor(s). Cases of neglect of research work and indiscipline that include unethical practices, such as plagiarism and misrepresentation of data and absenteeism, must be recorded and reported by the Supervisor/co-supervisor(s) to the SRC and the Vice-Chancellor for necessary action.

8.8    The progress of research of each student will be monitored by SRC or by its subcommittee. For this purpose, each student shall submit a progress report before the end of each semester to his/her supervisor. On receipt of the progress report, the Supervisor shall arrange with SRC or its subcommittee for a review. Satisfactory "S" grade shall be awarded for the semester if the progress is satisfactory. If the progress is unsatisfactory, then Unsatisfactory "U" grade shall be awarded and appropriate action is to be taken. If "U" grade is awarded, a warning would be issued to the student by SRC. If a student gets two consecutive "U" grades then the student's registration may be cancelled/terminated (See Clause 17). The grade awarded for each semester shall be communicated to COE by SRC.

8.9    The SRC, after having considered the progress report of each student in the semester, shall recommend one of the following to the Vice-Chancellor:

i)      Continuation of registration for those having "S" grade.

ii)     Continuation of registration with a warning to the students having "U" grade and approving the steps necessary for improvement in consultation with the Supervisor(s)

If a student is issued a warning, the minimum registration period for allowing the student to submit his/her dissertation shall be increased by one semester every time a warning is issued.

iii)   Termination of the registration (Refer Clause 17)

8.10  Absence from research work by Ph.D. students due to illness, maternity leave or other circumstances must be reported by the Supervisor/co-supervisor(s) to the SRC. Documentary evidence of such illness must accompany the report.

8.11  A full time student may be permitted by the SRC, on the recommendation of the Supervisor(s), to be absent from the university, ordinarily, for not more than 2 (two) semesters on the ground that it is in the interest of her/his research. For these semester(s) of absence, the student shall be required to register for the semester and pay the requisite semester fee.

8.12  Full time students may be engaged in paid/unpaid assignments such as to assist in teaching of theory and practical classes, checking assignments, etc. as per their fellowship requirements or as decided by the SRC. However, this engagement/assignment shall not normally exceed 8 hours per week.

8.13  No Ph.D. student who is holding fellowship/scholarship/assistance ship shall undertake an employment elsewhere during the period of his/her study. In case any Research Scholar is selected and joins some employment in between the period of his/her fellowship then he/she shall not remain eligible for availing the fellowship. However, he/she would be permitted to complete his/her Ph.D. provided he/she has already completed the course work and got the synopsis approved, as a part time student.

8.14  No student shall, without the permission of the Supervisor/co-supervisor(s) and the SRC, shall enroll for any other course of study in any institution which is not stipulated as an essential requirement for the Ph.D. programme by the School for which the student is enrolled, and approved by the SRC.

8.15  No student with fellowship/scholarship/assistanceship shall appear in any examination conducted by the University or a public body without prior permission of the Supervisor(s) and the concerned School Dean.

## 9.   DURATION OF THE PROGRAMME

9.1   Ph.D. programme shall be for a minimum duration of three years (six semesters), including course work and a maximum of six years (12 Semesters).

9.2   The women candidates and Persons with Disability (more than 40% disability) may be allowed a relaxation of two years for Ph.D. in the maximum duration. In addition, the women candidates may be provided Maternity Leave/Child Care Leave once in the entire duration of Ph.D. for up to 240 days.

9.3   However, in exceptional cases, more time may be granted by the Vice-Chancellor on recommendation of SRC, in steps of a semester each time. No extension shall be given beyond seven years (Refer Clause 17).

## 10.   PRE-DISSERTATION SUBMISSION & PRESENTATION

10.1  A pre-dissertation submission by the student to the SRC is an essential requirement. On completion of the research work, the student shall submit

8 (eight) copies of summary of his/her research work (synopsis) to the SRC through his/her supervisor(s) and make a presentation of his/her research to the SRC at which faculty members and other research students of the concerned and of other schools may be present.

10.2 If the SRC finds the work presented to be not worthy of Ph.D., the student shall make all the improvements suggested and shall re-submit and make a presentation as specified in Clause 10.1.

10.3 The student shall be required to submit his/her dissertation within three months from the date of pre-dissertation submission presentation by the student. However, in case a student fails to submit his dissertation within the stipulated time and has genuine justification for the same, the Dean of the School may, on recommendations of the Supervisor(s), grant an extension for not more than three months i.e., the student may be allowed to submit his/her dissertation within a period not exceeding six (6) months from the date of pre-dissertation submission presentation.

10.4 The student will be required to submit a certificate from the supervisor(s) in the prescribed format, countersigned by the Dean, stating that the work embodied in the dissertation is original and has been carried out by the author and that it has not been submitted either in full, or in part, for any other diploma, or degree, at any other University, and is free from any form of plagiarism.

## 11. SUBMISSION OF THE DISSERTATION

11.1 The dissertation shall be a piece of research work characterized either by discovery of new facts or proposition of a new theory/theories or by fresh interpretation of known facts. It should bear evidence of the student's capacity for analysis and judgment as well as his/her ability to carry out independent investigation, design or development. No part of the dissertation or supplementary published work shall have been submitted for the award of any other diploma or degree at any other university/institution.

11.2 The dissertation shall be written in English (unless otherwise specified by the SRC/URC for special research areas) in specified format provided by the concerned school/university.

11.3 A student may submit his/her dissertation within the time period as stipulated in Clause 9, provided the Supervisor and Co-supervisors, if any, has/have found his/her research work satisfactory (and recommended so for submission to the SRC) and if he/she has completed the minimum period of registration as provided in Clause 9.

11.4 Ph.D. scholars must publish at least one (1) research paper in refereed journal and make minimum two paper presentations in conferences/seminars before the submission of the dissertation/thesis for adjudication, and produce evidence for the same in the form of presentation certificates and/or reprints.

However, if it is not possible to do so, then this fact must be brought to the notice of the SRC along with sufficient justification(s) as to why the dissertation should be accepted in the absence of above requirements and the SRC, in turn, may submit its recommendations to the Vice-Chancellor for approval.

11.5  Before submission of dissertation, candidate should not have any dues pending and/or any case of indiscipline pending.

11.6  While submitting the dissertation, the student should give an undertaking and a certificate from the Supervisor and Co-supervisor(s), if any, attesting the originality of the work, vouching that there is no plagiarism and that the work has not been submitted for the award of any other degree/diploma anywhere else.

11.7  Three copies of the dissertation in soft binding, along with one copy on Electronic Media, must be submitted to the Controller of Examinations (COE) for Evaluation, through SRC, along with the panel of examiners in a sealed cover. In case of a student being supervised by more than one supervisor, appropriate number of additional copies must be produced and submitted.

## 12.  APPOINTMENT OF EXAMINERS

12.1  A panel of a minimum of *six external examiners,* shall be suggested by the supervisor(s) and shall be submitted to Vice chancellor in a sealed cover through COE. Vice-Chancellor at his discretion will choose **three** names and appoints them to examine the dissertation. However, the Vice-Chancellor, if he so desires, may add other names in the panel of examiners.

12.2  In case one or more examiners so appointed declines to examine the dissertation, or is/are unavailable for some reason under unavoidable circumstances, another examiner may be appointed by the Vice-Chancellor.

## 13.  EVALUATION

### 13.1  Evaluation of Dissertation

i)  Each appointed examiner will be requested by COE to examine the student's dissertation and to submit to the COE, a detailed assessment report along with his/her recommendations on a prescribed pro-forma, within 3 months of the date of receiving the dissertation.

ii)  In the event of the assessment report not being received from an examiner within 4 months, the Vice-Chancellor may appoint another examiner from the panel of examiners for evaluating the dissertation.

iii)  The examiners shall be required to state categorically whether in their individual opinions, the dissertation should be:

- Accepted for the viva-voce for award of Ph.D. degree, or
- Requires revision and re-submission
- Rejected

The examiner shall state the reasons for recommending re-submission/rejection of the dissertation. If resubmission is recommended, the examiner shall specifically indicate the work to be done/modifications that need to be incorporated in the dissertation by the student.

iv) Once all the examiners have submitted their reports, these will be placed before the University Research Committee (URC). The URC shall examine the reports and give one of the following recommendations to COE.

- If the examiners are unanimous that the dissertation be accepted for award of the degree, the student shall be asked to appear for the oral defense.

- If the examiners are unanimous that the dissertation be rejected or that the dissertation be re-submitted in a revised form, the student shall be informed to resubmit the dissertation after compliance with all suggestions made by examiners..

- If there is no unanimity between examiners, an additional external expert, from the panel shall be appointed by Vice-Chancellor as examiner to examine the dissertation. The report of the additional examiner, along with all the earlier reports, shall be considered by the URC and a recommendation shall be made to either accept or reject the award of degree.

v) In the event of the student being required to submit a revised dissertation, he/she shall submit the same within a period of one year from date of communication in this regard from the COE. However, in exceptional circumstances this period may be extended by the concerned SRC by one more year but the total revision time shall not exceed two years (See Clause 9). The revised dissertation shall be sent for assessment to the original panel of examiners. In the event of one or more of original external examiners not being available, an additional external examiner, from the panel will be appointed by Vice-Chancellor.

## 13.2 Oral Defense

i) The student, whose dissertation is recommended for acceptance in accordance with provision of Clause 13.1, shall be required to defend his/her work/dissertation orally before a duly constituted panel of examiners, during working hours of the University at the University premises. Any deviation from this must have prior permission from the Vice-Chancellor.

ii) This panel of examiners shall consist of the Dean of the concerned School, the Supervisor(s), and one examiner from the external examiners. If none of the external examiners is available from the pool for the conduct of the oral defense, an alternative external examiner may be appointed by Vice-Chancellor for this purpose only. The panel of examiners for oral examination shall submit a report in the prescribed proforma to the COE.

iii) On the completion of all the stages of examination, COE shall submit the report to the Vice-Chancellor for approval of the award of Ph.D. degree.

## 14.  AWARD OF DEGREE

The Degree shall be awarded by the University if all of the following conditions are met:

- The student produces a "No Dues Certificate' in the prescribed format from the university,

- The student submits two hard bound copies of the dissertation; one for the School Library and one for the Central Library, in the prescribed format, incorporating all the revisions and corrections.

- Two CD Roms containing soft copy of the dissertation.

Note: Hard bound copies and CD ROM of the Ph.D. dissertation must be submitted after the oral defense examination and after incorporating all suggestions.

a)  The University shall issue a Provisional Certificate certifying that the Degree has been awarded in accordance with the provisions of UGC Regulations dated July 11, 2009, or any other as applicable, after all above requirements are met.

b)  The degree shall be awarded in the next convocation or earlier in exceptional circumstances, as provided in Examination Rules.

## 15.  DEPOSITORY WITH UGC

Following the successful completion of the evaluation process and announcements of the award of the Degree, the University shall submit a soft copy of the dissertation to the UGC within a period of 30 days, for hosting the same in INFLIBNET, accessible to all Institutions/Universities.

## 16.  LEAVE AND ATTENDANCE

A student will be regulated by the attendance/leave policies as formulated and approved by the Academic Council from time to time.

17. **CANCELLATION OF REGISTRATION**

    Registration of a student shall be cancelled in any one of the following eventualities, after due approval of the Vice-Chancellor:

    a) If a full time student absents himself/herself for a continuous period of six weeks without prior intimation / sanction of leave.

    b) If the student does not want to continue the Ph.D. programme.

    c) If the student fails to renew his/her registration in a semester unless exceptions apply as described in these Regulations.

    d) Fails to submit the dissertation within the time stipulated in Clause 9.

    e) If his/her academic progress is found to be unsatisfactory as per the terms of Clause 8.

    f) If he/she is found to be involved in an act of academic misconduct, indiscipline and termination is recommended by the SRC or any other authority authorized by the Academic Council.

18. The URC will formulate required bylaws rules, procedures and formats for smooth operation of the doctoral programmes with the approval of the academic council within the frame work of these Regulations.

19. Notwithstanding anything stated in these Regulations, for any unforeseen issues arising, not covered by these Regulations, or in the event of differences of interpretation, the decision of the Vice-Chancellor shall be final.

20. These regulations shall be applicable with immediate effect to all exiting Ph.D. students and students admitted in future.

--------------x----------x--------------

**To approve the format and contents of final report to be submitted by students for course PPHD905 LITERATURE SURVEY as detailed below:**

## Literature Survey Report

Title of Research Work        []

Research Scholar Name        []

Roll Number        []

Department/School        []

Supervisor        Dr.

Report Submitted in partial fulfilment of Course

**PPHD905 LITERATURE SURVEY**



**K. R. MANGALAM UNIVERSITY**
Sohna Road, Gurgaon, India
dd-mmm-yyyy

*Contents*

| S. No. | Topic | Page No. |
|---|---|---|
| 1 | Type in broad topic of your work 1 | |
| 2 | Type in broad topic of your work 2 | |
| 3 | Type in broad topic of your work 3 | |
| 4 | Type in broad topic of your work 4 | |
| 5 | Type in broad topic of your work 5 | |
| 6 | Type in broad topic of your work 6 | |
| 7 | Tutorials | |
| 8 | Publicly available datasets | |
| 9 | Publicly available software | |
| 10 | Journals | |
| 11 | Books and e-Books | |
| 12 | Master's and Ph.D. Theses/Dissertations | |
| 13 | Technical Reports | |
| 14 | Presentations | |
| 15 | Standards | |
| | Notes | |

*[Title of broad topic of your work 1]*

| S. No | Title | Author(s) | Journal/Conference, Vol., Issue, Page No. | Description | Available at |
|---|---|---|---|---|---|
| 1 | *Cross-Layer QoS Framework in the IEEE 802.16 Network* | *Yi-Ting Mai, Chun-Chuan Yang and, Yu-Hsuan Lin* | *Advanced Communication Technology, The 9th International Conference on 12-14 Feb. 2007,pp- 2090 - 2095* | *To support multimedia service with the Broadband Wireless Access (BWA), the IP layer QoS is one of the keys to success. The IEEE 802.16 technology provides the wide area, high speed and non-light-of-sight wireless network. In the standard, the layer 2 technology of the IEEE 802.16 supports the QoS service with four service types. To improve the performance of the IEEE 802.16 network, we should consider how both the IP layer QoS and 802.16 QoS cooperate. In this paper, we propose a framework of cross-layer QoS support in the IEEE 802.16 network. Two novel mechanisms are proposed in the framework for performance improvement: Fragment Control and Remapping. Fragment Control handles the data frames that belong to the same IP datagram in an atomic manner to reduce useless transmission. Remapping is concerning about the mapping rules from IP QoS to 802.16 QoS and is designed to reduce the impact of traffic burstiness on buffer management. Simulation study has shown that the proposed scheme has higher goodput and throughput than the contrast.* | *http://ieeexplore.ieee.org/Xpl/free abs_all.jsp?arnumber=4195586* |
| 2 | | | | | |
| 3 | | | | | |

*[Title of broad area of your work 2]*

| S. No | Title | Author(s) | Journal/Conference, Vol., Issue, Page No. | Description | Link |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

*[Title of broad area of your work 3]*

*[Title of broad area of your work 4]*

*[Title of broad area of your work 5]*

*[Title of broad area of your work 6]*

## *Tutorials*

| S N | Web Site address | Description |
|---|---|---|
| 1. | Ns2 Tutorials: http://www.google.co.in/url?sa=t&rct=j&q=ns2%20tutorial%20%2B%20ga%20hang&source=web&cd=1&ved=0CB0QFjAA&url=http%3A%2F%2Fpages.cs.wisc.edu%2F~akella%2FCS740%2FS07%2Fnotes%2Fnstut.ppt&ei=AvnKTrzoGlusrAeC1cmnCA&usg=AFQjCNGVa3DjYVvst13rvmT7dBw32BfyyrA | Briefing of Ns2 |
| 2. | Ns 3 Tutorials: http://www.google.co.in/url?sa=t&rct=j&q=ns-3%20premier%20%2B%20egemen%20%C3%A7etinkaya&source=web&cd=1&ved=0CCQQFjAA&url=https%3A%2F%2Fwiki.ittc.ku.edu%2Fresili_nets_wiki%2Fimages%2FNs-3_1.ppt&ei=3_nkTrOqFlusrAeC1cmnCA&usg=AFQjCNFL_2z6gR_1QM7ZUnEl1F-U61uH-Q | Difference Between Ns2 and Ns3,Basics of Ns3. |
| 3. | Basic Simulation Modeling II(http://www.cs.sunysb.edu/~cse529/chap1.pdf) | Nature of Simulation |
| 4. | | |
| 5. | | |

## *Publicly available datasets*

| Sl. No. | Name | Platform | Organization | Available at, and Terms & conditions |
|---|---|---|---|---|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |

## *Publicly available software*

| Sl. No. | Name | Runs on platform | Author | Organization | Available at, and Terms & conditions |
|---|---|---|---|---|---|
| 1. | Ns2 | Linux,Unix | | Free open source | http://nsnam.isi.edu/nsnam/index.php/Downloading_and_installing_ns-2 |
| 2. | Ns3 | Linux,Unix | | Free open source | http://www.nsnam.org/ns-3-11/download/ |
| 3. | Omnet++ | Linux,Unix,Windows | | Free Open Source | |
| 4. | | | | | |
| 5. | | | | | |

## Journals

| Sl. No. | Name | Available at | National/ International |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

## Books and e-Books

| Sl. No | Title | Author(s) or Editor(s) | Publisher | Edition | Year | Filename on HD Drive or e-book Hyperlink |
|---|---|---|---|---|---|---|
| 1. | Broadband Wireless Access and Local Networks:Mobile WiMAX and WiFi | Byeong Gi Lee, Sunghyun Choi | ARTECH HOUSE | | 2008 | |
| 2. | Modeling and Simulation Tool fro Network Simulation | KlausWehrle, Mesut Güne,James Gross | Springer | | 2010 | |
| 3. | NETWORK MODELING AND SIMULATION | Mohsen Guizani, Ammar Rayes, Bilal Khan, Ala Al-Fuqaha | Wiley | 1st | 2010 | |
| 4. | WiMAX Standard and Security | SYED AHSON MOHAMMAD ILYAS | CRC Press | | 2008 | |
| 5. | | | | | | |

## Master's and Ph.D. Theses/Dissertations

| Sl. No | Title | Author | University | Filename on HD Drive | Year | Pages |
|---|---|---|---|---|---|---|
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |

## Technical Reports

| Sl. No | Title | Author(s) | Organization | Filename on HD Drive | Year | Pages |
|---|---|---|---|---|---|---|
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |

## *Presentations*

| Sl. No | Title | Author(s) | Organization | Filename on HD Drive | Year | Available at |
|---|---|---|---|---|---|---|
| 1. | | | | | | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |

## *Standards*

| Sl. No | Title | Author(s) | Organization | Filename on HD Drive | Year | Available at |
|---|---|---|---|---|---|---|
| 1. | Part 16: Air Interface for Broadband Wireless Access Systems | IEEE group | IEEE 3 park Avenue,New York,NY,10016-5007,USA | | 2009 | |
| 2. | | | | | | |
| 3. | | | | | | |
| 4. | | | | | | |
| 5. | | | | | | |

*Notes*

**Guidelines**

- The purpose of this document is to help the research scholars arrange the literature in a fashion that would be easily locatable and well organized, by keeping them together at one place.
- The document would be helpful for the following purposes:
  - ○ Preparation of Literature Survey chapter of the final thesis
  - ○ Preparation of other chapters as well as the References section
  - ○ Creation of personal research website, if intends to do so.
- In case no standards, publicly available software or datasets are required/available for the research work, please remove those sections and entries in the Contents.

**K.R. MANGALAM UNIVERSITY**
Sohna Road, Gurugram – 122 103

# *Research Progress Report*

| Title of Research Work | | **[TYPE THE TITLE OF YOUR PhD WORK]** |
|---|---|---|
| Research Scholar Name | | **[YOUR NAME]** |
| Registration Number | | [Type Registration No.] |
| Department/School | | [DEPARTMENT/SCHOOL NAME] |
| Supervisor | | **Dr. _____** |
| Co-supervisor(s): | | |
| Semester | | |
| Academic Year | | **201_-201_** |

# K.R.Mangalam University
Sohna Road, Gurgaon, India

dd-mmm-yyyy

# *Contents*

| S. No. | Topic | Page No. |
|--------|-------|----------|
| 1 | Description of Research Work | |
| 2 | Objectives Proposed and Achieved | |
| 3 | New Work Done | |
| 4 | Actual Time Schedule | |
| 5 | Requirements | |
| 6 | Budget Needs | |
| 7 | Publications brought out | |
| 8 | Grant-in aid/funding scholarship details | |
| 9 | IPR handled/filed | |
| 10 | Visits/talks carried out | |
| 11 | Conferences/seminars/meetings attended | |
| 12 | Future Plans | |
| 13 | References | |
| 14 | Any other information in support of the research work | |
| | Notes | |

# *Progress Report*

| | |
|---|---|
| Research Scholar Name | **[YOUR NAME]** |
| Roll Number | [Type Your Roll No.] |
| Department/School | [DEPARTMENT/SCHOOL NAME] |
| Supervisor | Dr. |
| Co-Supervisor(s) | |
| Semester | |
| Academic Year | 201_-201_ |
| Approved Title of Research | **[TYPE THE TITLE OF YOUR PhD WORK]** |
| Broad area of work | |
| Specific area of work | |

## 1.    Description of Research Work

Not more than one page

## 2.    Objectives Proposed and Achieved

| Sl. No. | Objective | Work completed | Work remaining |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |

Status of the proposed work: (not more than 3 pages)
i.   Progress with reference to experimental work giving details of experimental set up, methods adopted, data collected duly supported by necessary tables, charts, diagrams and photographs.
ii.  Progress with reference to International status/ new international developments in the proposed work area.
iii. Work remaining to be undertaken.

## 3.    New Work Done in the Same Area Nationally or Internationally

| Sl. No | Name and affiliation | Name of work | Brief Description | Reference, if any | Level (Nat'l or Int'l) |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |

| Sl. No | Name and affiliation | Name of work | Brief Description | Reference, if any | Level (Nat'l or Int'l) |
|---|---|---|---|---|---|
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |
| | | | | | |

### 4. Time Schedule

a) The actual schedule of the activities undertaken is as under:

| Sr. No. | Activity | Duration (in weeks) |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| | | |

b) The tentative schedule of the activities to be undertaken is as under:

| Sr. No. | Activity | Duration (in weeks) |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| | | |

### 5. Requirements of Equipment/Software/

a) **Available with the Dept/School**

| Name of Equipment | Year of Purchase | Status |
|---|---|---|
| | | |
| | | |
| | | |

b) **Additionally required items/services**

| Name of item/service | Vendor/Provider contact details | Brief specifications |
|---|---|---|
| | | |
| | | |
| | | |

### 6. Budget Needs

| S N | Budget Head | Initial Estimate | Actual incurred | Justification |
|---|---|---|---|---|
| 1. | Consumables | | | |
| 2. | Contingency | | | |
| 3. | Equipment (Generic Name with minimum required accessories, make & model & Cost in | | | |

| S N | Budget Head | Initial Estimate | Actual incurred | Justification |
|---|---|---|---|---|
| | Indian Rupees) | | | |
| a. | | | | |
| b. | | | | |
| c. | | | | |
| d. | | | | |
| e. | | | | |
| 4. | Miscellaneous | | | |
| | Total | | | |

Please provide justification for each of the budget estimate head in about a paragraph each.

## 7. Publications:

| Title | Author(s) | Conference/ Journal Details* | Month & Year | Impact factor |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

- For conferences give the name and venue, whereas for journal give the name, volume and issue number
- Compulsorily provide the ISBN/ISSN details for all publications
- Providing details of impact factor is highly encouraged
- Attach a copy of the complete paper with certificate, if any

## 8. Grant-in aid/funding/scholarship details

| Title of the Project(s) | Sponsored & Funded by | Sanctioned Amount | Dept. | Team | Year | Status |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |

## 9. IPR filed

| IPR Title | Description | Copyright/ Patent/ Trade Mark/ Design | Application No./ Reference No. |
|---|---|---|---|
| | | | |
| | | | |

## 10. Details of Visits/talks delivered:

| Visit details/Talk topic | Venue | Date(s) | Description |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

## 11. Conferences/seminars/meetings attended

| Conference/ Seminar/ Meeting details | Venue | Date(s) | Description of activity carried out |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

12. **Plan for Next Semester work/Submission of Thesis:**
    Write briefly in points (should not be more than a page)

13. **References**
    The references may include the following categories, as applicable:
    a) Papers and articles
    b) Books and e-books
    c) Tutorials
    d) Web sites
    e) Presentations
    f) Masters and doctoral theses
    g) Technical reports
    h) Standards

14. **Any other information in support of the research work**

| Registration form submitted for the current term | €Yes          €No |
|---|---|
| Any other information | |
| Name of the research scholar | Signature with date |

| The Research Progress Report received from the research scholar on | _____ |
|---|---|
| Progress of the research scholar is: | SATISFACTORY<br>UNSATISFACTORY |
| Name of the research guide | Signature with date |

# GUIDELINES

**I.     Progress report format**
- The purpose of this document is to keep record of progress of work done by the research scholars during a term.
- The document size should not exceed beyond 12 pages excluding the Part A, Part B, Part C and Notes.
- The text may be typeset in Calibri font size 11 point and alignment of both sides justified. Section Headings may be in size 12 bold.
- Many part of the document would be helpful for the following purposes:
    - Preparation of different chapters of the final thesis
    - Planning for new work, as well as find out what tasks are lagging
- In case some of the sections are not applicable for the research work, please fill up "NA" but do not remove those sections and entries in the Contents.
- Make sure that the page numbers are filled up in the Contents page after completion of the progress report.

**II.     Presentation format**
- The document should be followed by a presentation consisting of about 15 slides to the School Research Committee(SRC).
- The slides must contain the following
    - a) title slide (title of work, regd. No., name, supervisor name and dept.) in 1 slide
    - b) methodology (process, algorithm, design, etc.) in 2-3 slides
    - c) current work done by the scholar in 3-5 slides
    - d) validation/test methods in 2 slides
    - e) future plans in 1 slide
    - f) references in 1-2 slides
- Use graphical representations, wherever necessary, to present the concept

**III.     General**
- This filled-in report along with presentation should be submitted to SRC which will communicate its findings to URC.
- Delete this last page containing Guidelines in the actual document once filled up.

**Actions of the Chairman**

The Chairman approved the following two proposals for exemption from Pre-PhD course work based the recommendations.

NOTE

Dated: 20th Sept., 2016

The Following candidates who have already qualified in M. Phil degree were exempted from the written test of PhD Entrance Examination as per UGC guidelines. They appeared for interview in front of their respective School Research Committee.

These candidates have already qualified M Phil degree and their documents in this regard have been verified.

As per their request, all these candidates have been recommended by their respective Dean for exemption from the Pre-PhD course

The UGC guidelines 2016 have stipulated it in the Regulation 7.5 which reads as under, and the same has been proposed in our Regulations under 5.3.

"*Candidacies already holding M Phil. Degree and admitted to the Ph.D. programme,, or those who have already completed the course work in M Phil. and have been permitted to proceed ho the Ph. D. in integrated course, may be exempted by the Department from the PhD course work. All other candidates admitted to the Ph.D. programme shall be required to complete the Ph.D. course work prescribed by the Department.'*

In consideration of the above. It is proposed that the following candidates may be exempted from the Ph.D. course work,

| S.No. | Roll No. | Name of Candidate | School | Department | Qualifying Degree |
|-------|----------|-------------------|--------|------------|-------------------|
| 1. | 1608990025 | Ms Sapna Sharma | SOHS | English | M Phil |
| 2. | 1608990027 | Ms Savita Sharma | SOHS | English | M Phil |
| 3. | 1608990026 | Ms Sunita | SOLW | English | M Phil |
| 4. | 1603990019 | Ms Pooja Devi | SBAS | Mathematics | M Phil |

Submitted for consideration and approval.

s/d
Prof. R.S.Tyagi
PhD coordinator
K R Mangalam University
Sohna, Gurgaon

# MANGALAM UNIVERSITY
Sohna Road, Gurgaon -- 122103

Dated: 21ˢᵗ Sept., 2016

Ms .Kusum Shanna has qualified NET examination of UGC and she was exempted from the written test of PhD Entrance Examination as per UGC/University guidelines. She appeared for in front of the School Research Committee of SOHS.

Ms Kusunn has passed the Pre-Ph.D. course work from MDU University Rohtak that entitles her to get admission to Ph.D. at that University. Copy of the MDU Rohtak Regulations (4 & 5) in this regard is attached herewith. As per her request, she has been recommended by the Dean SOHS exemption from the Pre-PhD course work.

The UGC guidelines 2016 have stipulated it in the Regulation 6.6 which reads as under, and the same has been proposed in our Regulations under 7.6.

> *7.6 In case of relocation of an Ph.D. woman scholar due to marriage or otherwise, the research data shall be allowed to be transferred to the University provided all (he other conditions in these regulations are followed in letter and spirit and the research work does not pertain to the project secured by the parent institution/ supervisor from any funding agency The scholar will however give due credit to the parent guide and the institution for the part of research already done.'*

In consideration of the above, it is proposed that the following candidates may be exempted from the Ph.D. course work- since

l. she is eligible to proceed for Ph.D. Registration at MDU Rohtak which has issued a Migration certificate in her favour for continuation of her studies at any other university, and

2. She has relocated from Rohtak to Gurgaon on account of marriage.

| S.No. | Roll No. | Name of Candidate | School | Department | Reason |
|-------|----------|-------------------|--------|------------|--------|
| 1. | 1608990024 | Ms Kusum | SOHS | English | Pre-PhD Course done |

Submitted for consideration and approval.

s/d
Prof. R.S.Tyagi
PhD coordinator
K R Mangalam University
Sohna, Gurgaon