

Universiti Tunku Abdul Rahman			
Guideline Title : UTAR UNDERGRADUATE RESEARCH SCHEME (UTAR URS)			
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1. Preamble

Problem solving has been identified as an important skill that undergraduates need to acquire during their studies in the university. Enhancement of this skill will enable them to be more prepared and ready for the corporate work force upon their graduation.

Interested undergraduates can potentially be trained to work in research, design and development based areas. For such students, it is important for them to be exposed and involved in R&D work in the university so that their problem solving skills and interest in R&D can be further developed. This will also help to enlarge the pool of potential manpower for R&D activities in the university and the country.

2. Objectives

2.1. UTAR URS is a scheme in which UTAR undergraduates can systematically undergo a structured programme designed to expose and train them in various aspects of research project implementation.

2.2. The scheme will allow students to gain a working insight into the research being undertaken by the academics that teach them, and provides a unique opportunity to develop some of the technical and transferable skills needed in a top research environment.

2.3. UTAR URS will give students a chance to participate in active research in their respective fields of study. It aims to engage students in the processes of intellectual inquiry, problem solving and creative thinking, and enhance intellectual exchange and collaboration between undergraduates and faculty.

2.4. Though the scheme may not form part of undergraduate coursework, it aims to provide an opportunity for students to undertake practical research during the undergraduate years to better prepare students for graduate studies.

3. Benefits

3.1. It is envisaged that students will stand to gain the following from the scheme.

- a) Acquisition and enhancement of problem solving and research skills;
- b) Training in preparation for research, design and development work in future;

- c) Potentially contribute to scientific publications, patents and presentations
- d) Certification on research skills to enhance personal profile;
- e) Employability enhancement;
- f) Higher readiness and chance of obtaining postgraduate places and financial aid in local or overseas universities.

3.2. Benefits of UTAR URS to UTAR and the industry:

- a) Enlargement of pool of potential manpower for R&D and design based types of work;
- b) Enhancement of relevance and employability of UTAR's graduates;
- c) Enhancement of students' interest to pursue postgraduate studies.

4. Eligibility

- 4.1. All UTAR undergraduate students are eligible and the scheme is open to students from all disciplines.
- 4.2. Students can join the programme at any time from their first year of study and prior to the completion of their undergraduate course.
- 4.3. The scheme is for undergraduate students with research interest to join on voluntary basis. The scheme involves no payment from or to the students.

5. Scheme Structure

The scheme shall consist of the following modules.

- 5.1. **Training workshops:** research methodology, technical, research reading and writing, research ethics, intellectual property rights and protection, etc.
 - a) An undergraduate participant of the scheme is required to attend **8 hours** of research workshop/s training.
 - b) The focus areas covered in the workshop comprise how research is designed, what methods are used, how data are collected, and data analysis and interpretation.

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- c) The research workshops will comprise separate technical and non-technical course outlines.
- d) A certificate of attendance will be issued for participation in each module. Fulfillment of the 8-hour workshop participation will entitle the student to claim points leading to qualification for the UTAR Soft Skills Development Certificate (USSDC).

5.2. Research project attachment: each UTAR URS student will be attached to approved research project (s) during their study in UTAR and achieve a minimum hours of engagement of **140 hours**. However, students are advised not to have multiple projects simultaneously at any one time.

- a) This is the practical component of the scheme which offers students the opportunity to assist with the research of faculty members.
- b) The hours can be accumulated over the duration of the student's study in UTAR and can be accumulated from multiple projects.
- c) Final year projects that are part of or related to any research project of the University may be considered as part of research work carried out under UTAR URS, provided the candidates have at least 70 hours involvement in the research project prior to the commencement of their final year project.
- d) As this is a voluntary scheme, there will be no out-payment made to the student during his research project tenure. Nevertheless, it is upon the discretion of the Principal Investigator of the research project if he chooses to disburse any form of reimbursement to the student from his available research grant.

6. UTAR Undergraduate Research Scheme Committee

6.1. The **UTAR Undergraduate Research Scheme Committee (UTAR URSC)** shall comprise the following members with the stated Terms of Reference.

Committee members

Vice President (R&D and Commercialisation) – Chairman;
 Director, Institute of Postgraduate Studies and Research (IPSR);
 Deputy Director, Institute of Postgraduate Studies and Research (IPSR);
 One representative of each Faculty as appointed by respective Faculty Board;

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One representative of CEE as appointed by its Director;
representative/s of CEE;

Secretary: One representative of IPSR as appointed by its Director.

Terms of Reference (TOR)

The URSC's responsibilities shall include but are not confined to the following:

- a) To coordinate and facilitate UTAR URS among the students.
- b) To encourage participation of research projects in UTAR URS by accepting students to be attached to the projects.
- c) To continuously review UTAR URS and propose enhancement of the scheme which include assessment method to the senior management of the University.
- d) To assess students under UTAR URS and make recommendation of certificate award to the University Senate.
- e) To plan and organize training workshops of UTAR URS in cooperation with IPSR.

6.2. Members of the URSC shall be appointed for duration of two (2) years and may be re-appointed.

7. Application and approval

7.1. Application is open throughout the year.

7.2. Invitation to apply will be advertised in the UTAR website. Applications must be made through the stipulated form which can be downloaded from the UTAR website.

7.3. Details of available projects, what the research assistance would involve and expected output of the research task/s will be provided on the UTAR website research portal. The portal will be regularly updated with new projects and will include details of the results of completed projects as well

7.4. To apply, students are required to fill in the required particulars and indicate the research project/s they wish to be attached to.

7.5. The Principal Investigator of the research project applied for will review the application, interview the applicant and recommend the successful applicant based on their selection criteria.

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7.6. Upon recommendation by the Faculty and approval by the Director, Institute of Postgraduate Studies and Research, successful students will receive an email informing them of their application status.

7.7. Successful applicants will confirm their acceptance of participation to the scheme via email. Thereafter, further details of the scheme will be made available via email:

- Research workshop details: topics, schedule.
- Research project details : title, Principal Investigator;
 - o Attachment duties and schedule.
 - o Reimbursement details, if applicable.

8. Certification

8.1. A report is to be written by the student upon completion of the programme, assessed by the Principal Investigator of the research project and submitted for evaluation to UTAR URSC.

8.2. The candidate may be called for a presentation by the committee. Upon the committee's satisfaction of qualified candidate/s, a recommendation shall be made to the University Senate for the award of **UTAR Undergraduate Research Scheme (UTAR URS) Certificate**.

9. Duties and Responsibilities

9.1. The undergraduate is required to perform his/her assigned research tasks diligently.

9.2. The undergraduate shall be terminated from the research project attachment at any time on the occurrence of any of the following:

- a) The undergraduate fails to perform his/her duties satisfactorily.
- b) The undergraduate's services are no longer required in the project or the work assigned under the project has been completed.
- c) The work for which the undergraduate is engaged to perform the services has been suspended or ceased.
- d) Any gross misconduct, insubordination and persistent absence from research task/s without approval on the undergraduate's part.

10. Withdrawal from scheme

10.1. The undergraduate can withdraw from the scheme by giving one month (30 days) notice in written to the Principal Investigator. The letter will have to be forwarded to IPSR for endorsement from Director of IPSR. The undergraduate is advised to discuss with the Principal Investigator prior to any withdrawal.

10.2. The Principal Investigator can terminate the undergraduate from the scheme by giving one month (30 days) notice in written to the student, copied to the Director of IPSR. The Principal Investigator is advised to discuss with the undergraduate prior to any termination. Upon termination, the PI shall have no further obligation to the undergraduate.

11. Personal Accident (PA) Insurance

11.1. All UTAR students are covered by UTAR Student Group Personal Accident (GPA) Insurance which scope comprises accidents due to violent, external & visible means round the clock anywhere in the world.

11.2. Hence, URS students requiring to do field work outside UTAR campus are covered under the same GPA insurance.

12. Occupational Safety and Health Policy

12.1. The undergraduate is required to during the research project attachment tenure comply with the relevant provisions of the Occupational Safety and Health Act 1994:

- a) Take reasonable safety and health measure for himself and others.
- b) Cooperate with his PI and project researchers in any duties assigned.
- c) Use and wear at all times, any protective equipment or clothing provided by the University.
- d) Comply with any instruction or measure on occupational safety and health instituted by the University.

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13. Confidentiality

- 13.1. The undergraduate must keep in strict confidence all commercial and technical information in whatever form acquired, directly or indirectly from UTAR or the project in connection to his/her attachment with UTAR research project, hereinafter called 'Confidential Information' for any purpose other than those contemplated in the undergraduate's project attachment.
- 13.2. Furthermore, the undergraduate shall not disclose any Confidential Information to any third party for any purpose without the prior written consent of UTAR.

14. Proprietary Rights

- 14.1. UTAR shall have the sole and exclusive right to all intellectual property rights that the undergraduate gained and/or acquire while performing his/her duties during the attachment. The intellectual properties shall include discoveries, innovations and inventions made and stored physically or electronically such as printed materials, computer software, presentation materials, etc. UTAR shall have the right to use these intellectual properties at its discretion in whatever form, manner or purpose.
- 14.2. The undergraduate shall not use these intellectual properties for any purpose other than for serving UTAR and shall not use them for their own gain or for any other institution of higher learning/organization without the prior authorization in writing from UTAR.

15. Return of University Property

- 15.1. The undergraduate who has been issued with University properties shall return such items to the Principal Investigator concerned at the end of his/her daily task/.

16. Prohibition of Press Statement, Speeches and Comments

16.1. The undergraduate is prohibited from making any press or public statements and from circulating any statements pertaining to the University or his duties. He/she should not publish, broadcast or in any lecture or tutorial or speech, comment on anything relating to the University or his duties.

17. Review of Rules and Regulations

17.1. Universiti Tunku Abdul Rahman at its sole and absolute discretion may vary, modify, add, delete or amend any of the above rules and regulations of the Undergraduate Research Scheme.