



POLYTECHNIC UNIVERSITY OF THE PHILIPPINES
COLLEGE OF ENGINEERING
COMPUTER ENGINEERING DEPARTMENT

OUTCOME/S

O.1. Priority researches are identified and conducted.



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Engineering Science Research Center





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Lifted from the University Research & Development Manual (pp. 36-43).

Chapter 6

UNIVERSITY RESEARCH FUNDING, SUPPORT AND INCENTIVES

The University, through the Office of the Vice President for Research, Extension, Planning and Development (OVPREPD), concretizes its fundamental commitment to research by providing the necessary institutional support, funding the incentives for researchers. These benefits and rewards for researchers are designed to intensify the quantity and quality of research outputs produced by teaching and non-teaching personnel in the University, reinforce the culture of research, and contribute to knowledge generation, which is indispensable function of an institution of higher learning.

Who are Eligible for Funding and Incentives?

Any of the following parties may apply as a project proponent and be eligible for University support, funding and incentives:

1. An academic department or college in the University;
2. An administrative office or research institute/center in the University;
3. A duly recognized faculty and/ or administrative organization in the University;
4. An individual or a group of full-time (regular and temporary) faculty members of the University;
5. An individual or a group of permanent administrative employees of the University;
6. A part-time faculty member, in collaboration with a regular faculty member of the University;
7. A bonafide student under the supervision and in collaboration with a regular faculty member of the University; and
8. A regular faculty member of the University in collaboration with research from other universities and/ or external agencies.

Research Funding

The University shall annually allocate funds for the conduct of institution and specialized researches, acquisition of books and project-related equipment, subscription to periodicals, professional journal and other similar publications. Funding may also be generated through external sources such as grants, donations, bilateral agreement, collaboration with government and private agencies, and other local and foreign funding institution.

The following are the types of university research, based on their fund sources and term of support given:

1. Internally-Funded Research

Internally funded researches are university-sponsored project that have been incorporated in the budget proposal for a given year. To be eligible for direct University funding, research proposals have to be submitted to the University Research Evaluation Committee (UREC) not later than first week of October of every year for screening and endorsement of the Committee. Upon approval of the University President through the recommendation of the Vice President for Research, Extension, Planning and Development (VPREPD), the funding for the approved project proposals will be provided on the fiscal year that follows.

A Memorandum of Agreement (MOA) shall be entered into by the University and the proponent/s of the research project stipulating both the extent of support granted to the researcher/s and the project deliverables expected from the proponent.

Monitoring of the University-funded research rests on the Research and Extension Management office (REMO). Disbursement of fund is subject to existing University accounting and auditing rules.



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2. Externally-Funded Research

2.1 Funding Agency-supported Research

Proposals submitted to REMO that have passed the screening or peer review, will be endorsed by the University to outside agencies for possible funding. In addition, REMO shall post titles and project description in the internet to attract would-be sponsors.

The REMO will endorse eligible proposals to the proper agencies in accordance with their requirement and research priorities. Project monitoring rests on the REMO, although the proponents are not barred from reporting directly to their funding agency. Utilization of funds from external sources shall be decided by both the research proponents and funding agency to be stipulated in the MOA between the University and the funding agency.

2.2 Commissioned Research

The University, or outside agencies through the University, may commission a faculty member, an administrative staff member, or a group of faculty member / administrative staff to conduct research on a particular problem. Faculty member and/ or administrative staff commissioned to conduct the research should prepare the proposal and submit the same to the UREC for evaluation and endorsement to the commissioning institution.

In the case of a faculty member or a college who gets or is invited and commissioned to conduct the research, this should be properly reported to and coordinated by the REMO.

A MOA shall be entered into by the heads of both the University and the commissioning agency, or their authorized representatives, stipulating the obligations of the parties involved.

Project monitoring rest on the REMO, although the proponents are not barred from reporting directly to the commissioning agency. Disbursement of fund is subject to existing University accounting and auditing rules.

Project Budget Allocation

A research proposal submitted to the UREC should be accompanied by a detailed budget, which must be strictly followed once the proposal is approved. No allotment for one item may be reallocated to another item, unless otherwise approved by the authorized finance officers. The proponent may not be given additional budget beyond what is stipulated in the MOA.

For all types of externally-funded project, at least ten percent (10%) of the total project cost goes to the University to cover administrative costs.

Support, Funding and Incentives

Subject to the availability of resources, the following support and incentives may be granted by the University.

1. Honoraria

Honorarium is the incentive granted to researcher/s for service rendered beyond the minimum/regular workload to encourage productivity. Researcher/s involvement include conceptualization of research, implementation of research and development and other management functions in the implementation of research and development activities.

The proponent/s shall be entitled to due honorarium as project consultant/s and/or lead research/s. Depending on the type of project, a co-researcher and/or research assistant may also be granted honorarium.

For internally-funded research the total honoraria shall not exceed twenty five percent (25%) of the annual basic salary of the personnel involved in the project. The honoraria shall



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be based on the DBM Budget Circular No. 2007-2 or the Department of Budget and Management Guidelines on the Grant of Honoraria Due to Assignment in Government Special Projects.

For externally-funded research, honoraria shall be based on the stipulations in the project contract or MOA.

Non-teaching personnel can only engage in research as consultants and whatever remunerations they will get from the project shall be paid for services done outside official time.

The total cost of the research project shall be charged to the University fund including the benefits stated in this section, unless the grant is externally funded in which the fund sourced outside shall be held in trust by the University, and shall follow the schedule of access by the proponent/s as stated in the approved proposal and following the usual accounting and auditing regulations of the University.

Honoraria will be paid upon submission of the progress reports as stipulated in the MOA. Payment of Honoraria for the last two months of the project will be deferred, subject to the last fulfillment of the terminal requirements. I.e., submission of the terminal research report, holding of the research conference, and submission of a publishable version of the terminal research report.

2. Salary

Depending on the magnitude of the project, proponent/s may hire research assistants who are not full-time employees on the University on a project basis. Full-time faculty members or full-time employees of the University are not entitled to salaries/wages other than those they are currently receiving as employees of the University. They may, however, be entitled to honoraria.

The hiring of student/s as research assistant/s may be allowed on a case-to-case basis depending on the type of research project conducted. Students will be paid in accordance with the rules and regulation governing payment of Honoraria/allowance of student assistant in the University.

3. Operating Expenses

These cover travel cost, supplies and materials, and sundries (e.g., telephone calls, faxes etc.). Only the main project leader may request for cash advances for operating expenses. Request for cash advances have to be approved by the University President, upon the recommendation of the Vice President for Finance (VPF). The request must be duly countersigned by the VPRED.

A succeeding cash advance shall be allowed only after liquidation of the previous cash advance.

4. Books and Equipment

All books and equipment purchased for the purpose of the research project become University property and should be properly turned over to the appropriate office upon the completion/termination of the project.

5. Reduction of Teaching Load

Only full time faculty shall be entitled to a reduction of teaching load. The faculty may be de-loaded with twelve (12) units from the regular fifteen (15) units with corresponding night pay. A faculty member, however, may be allowed to carry a maximum of twelve (12) units of part-time teaching load, but shall not be allowed to handle any temporary substitution load. The total allowable teaching units of fulltime faculty who is into a research contract with the University shall be fifteen (15) only.



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Qualified part-time faculty member who are not employed by other agencies shall carry maximum of twelve (12) units of part time teaching load. They shall be allowed, however, to handle temporary substitution depending on the nature and the scope of their participation in the research.

6. Night Service Pay

Subject to the evaluation and recommendation by the UREC, the principal investigation project leader/proponent may be entitled to a night service pay. Only a non-designee, full time faculty member is entitled to this incentive.

7. Promotion

To encourage and reinforce research productivity, faculty members shall receive due promotion on the basis of their research output.

It is to be understood that a faculty member who is subject for promotion, must have satisfied the minimum requirement set by the Civil Services Commission and as provided for in the National Budget Circular (NBC) 461 for the said promotion.

In this promotion scheme, a faculty member who has published a paper in national or international refereed or peer-review journals shall be entitled to one rank or sub-rank promotion.

National publication refers to journal publication accredited by the Commission on Higher Education (CHED) through its journal Accreditation Services. International journal publication are those that include papers authored by research/contributors from across geographic location, and with international editorial composition.

Refereed journals, in this promotion scheme, are classified as non ISI/Scopus-indexed or ISI/Scopus-indexed.

Only full papers published in these journals shall be granted credits or points.

Points-system shall be employed in assigning the required points/scores for promotion which is based on the faculty member's current rank, the level at which the work appeared for publication, and whether the publication is ISI or Scopus-indexed or not. The table below illustrates the matrix for assigning credits for promotion based on research publication.

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Table 1. Matrix for Assigning Credits for Promotion of Faculty Members Based on Research Journal Publication

To be eligible for a rank or sub-rank promotion, a faculty member must accumulate the number of points corresponding to his/her rank. For instance, an instructor I to be promoted to instructor II sub-rank must acquire a total of fifteen (15) points, while the sub-rank promotion for the Professor level requires 40 points.

8. Conference Funding

Travel grants covering round trip transport fares, conference fee, and per diem allowance shall be made available for grantees presenting papers in national and international conference subject to relevant existing government policies.

9. Publication Financial Support and Incentive

The University shall provide the following support and incentive for every publication (including empirical research essays, policy papers, theoretical papers) in local, national and international refereed publication:

Refereed Journal				Total points to be earned to get a sub-rank or rank promotion
National		International		
Non ISI- /Scopus-indexed	ISI-/Scopus-indexed	Non ISI- /Scopus-indexed	ISI-/Scopus-indexed	
5 points For every Full paper	10 points For every Full paper	10 points For every Full paper	20 points For every Full paper	Instructor 15 points
				Assistant Professor 20 points
				Associate Professor 30 points
				Professor 40 points

Table 2. Publication Financial Support and Incentives

Level of Publication	Financial Support Incentive	
	Non-ISI/ Scopus Indexed	ISI- / Scopus -Indexed
Local / Institutional Journal	Php2,000.00	-
National and CHED-Accreditation	Php10,000.00	Php30,000.00
International Journals	Php10,000.00	Php30,000.00

9.1 Citation Incentives

The University shall provide cash incentives of P20, 000.00 for every work cited by other authors/scholars in an international ISI-/Scopus-indexed journal.

9.2 National and International Recognition Incentives

The University shall provide the incentives of P30,000.00 (for national level awards) and P50,000.00 (for international awards) for a search publications recognized and awarded by prestigious national or international body of research organization/institution.



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9.3 Honoraria for Institutional Journal Reference

The University shall provide reasonable honoraria and external referees of articles published in its local/ institutional journals. This is to ensure that all papers being considered for publications undergo a through peer review process and that high level of scholarship is upheld in all institutional publication. The following scheme shall be the basis for the granting of honoraria.

Table 3. Honoraria Rates for Institutional Journal Reference

Referee/Peer-Review	Honorarium
Internal (full-time and part-time/employee of the University)	Php1000.00 per article
External (Researcher/Expert from other university or agency)	Varied depending on the evaluation of referee's credentials/qualifications, and based on the guidelines set forth in the DBM Circular No. 2007-1. (The honorarium, however, should not be lower than Php 1,000.00 per article)

10. Awards

10.1 Plaque of Recognition

The University shall award a plaque of recognition to faculty members whose research output has made significant impact in the field and contribution to the vision of becoming an epistemic communality, as exemplified by publications and citations in refereed journals, and the recognition bestowed upon the said work by prestigious award-giving bodies.

10.2 Annual Best Research Awards

The Annual Best Research Award will be granted to faculty and administrative employees of the University who have published their research along two-cluster (1) Engineering and Sciences, and (2) Education, Humanities and Social Sciences. The awardees shall receive plaque of appreciation and corresponding monetary prizes per category as follow:

First Prize	-	P25, 000.00
Second Prize	-	P15, 000.00
Third Prize	-	P10, 000.00

In case of multiple authors, the prize shall be divided equitably among authors.

11. Thesis and Dissertation Grant

Upon approval of the administration, a full-time faculty member or administrative employees shall be provided grant to aid him/her in thesis/dissertation writing towards the completion of a graduate degree. The amount shall depend on the graduate level completed which is a follows:

Master's degree	-	P30, 000.00
Doctorate degree	-	P50, 000.00
Post-Doctorate degree	-	P80, 000.00

A faculty member or employee who has been awarded a thesis grant may still be eligible for a dissertation grant. No faculty or employee shall be afforded another grant for a second master's degree or a dissertation grant for a second doctorate degree.



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The aforementioned grand shall be provided on the condition that the research output is presented in a national or international conference and/or published in a national or international refereed journal.

12. Patents

A faculty member, employee and/or student whose work has been patented and applied for utility model and industrial design will be given the following incentives.

Utility Model/Industrial Design	-	P5, 000.00
Decision to Grant Patent	-	P10, 000.00
Publication of Patent in IPO Gazette	-	P15, 000.00
Issuance of Patent certificate	-	P25, 000.00
PCT Application	-	P50, 000.00

13. Membership in the Society of Research Fellows

The University shall establish a Society of Research Fellow whose membership shall be composed of faculty members and administrative employees who have established themselves in the field of research and development in their respective disciplines. Members of the academe research outputs shall be invited in the PUP society of Research Fellows. The following are the general criteria for membership:

1. A doctorate degree in the field of specialization. Candidates for doctorate degree may also be considered;
2. A faculty rank of at least Assistance Professor.
3. Extensive experience in research development in the field of specialization; with outputs that demonstrate significant impact on policy and practice.
4. Evidence of track record in international peer-reviewed journals;
5. Ability to innovate and willingness to work effectively with colleagues;
6. Ability to carry out independent research and attract research funding;
7. Excellent interpersonal and communication skills; and
8. Ability to teach, supervise and collaborate with highly motivated and exceptional graduate student.

14. Leave Credits

Full time faculty members shall be entitled for a maximum total of 15 days vacation leave and 15 days leave credits for a research project in a duration of at least one year, where any fraction thereof shall be prorated accordingly.

15. Intellectual Property Rights

The research proponent, unless otherwise stipulated in the contract or agreement, shall own the authorship and share copyright ownership with the University. The researcher shares in royalties from copyrights, patents, or other intellectual property rights derived from the research output as stipulated in the PUP IP Policy.

General Conditions and Provisions

1. The researcher/s shall comply with the requirements stipulated in the Revised Research and Development Manual to be eligible for any of the monetary and non-monetary support and incentives.
2. Any of the aforementioned support and incentives shall be granted on the condition that the research outputs shall be presented in a national or international conference, and/or published in a refereed national or international journal.
3. The name of the Polytechnic University of the Philippines as the author/s' institutional affiliation be explicitly demonstrated in any conference program/proceedings and/or journal publication.
4. The implementation of this policy shall strictly adhere to the BOR-approved Implementing Guidelines. (See Appendix F – Implementing Guidelines of the Policy on the University Research and Development Support, Funding and Incentives)



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List of Faculty who have conducted and/or are conducting research/es relevant to the Program

Name of Faculty	Title of Research	Duration of Implementation	Funding Source	Status (On-Going/Completed)
Cansino, Julius De La Cruz, Arvin R. Tenerife Jr., Pedrito M.	Impact Assessment of the Computer Engineering Learning Management System Evaluation	2019 - 2020	Personal	On-Going
Ado, Remedios G. Cansino, Julius S. Mahaguay, Rolito L. Tenerife, Pedrito Jr. M.	Industry Perception on the Computer Engineering Graduates of the Polytechnic University of the Philippines	2019 - 2020	Personal	On-Going
De La Cruz, Arvin R. Tenerife Jr., Pedrito M.	Design and Development of Banana Fiber Decorticator with Wringer	2018 – 2019	Personal	Completed
De La Cruz, Arvin R.	Optical Character Reader of a Braille Unicode System for the Blind	2018 – 2019	Personal	Completed
De La Cruz, Arvin R.	E-Teaching Assistance Management System (ETAMS) with Educator Stress Determination for K*12, Tertiary, Graduate School and Distance Education	2018 – 2019	Personal	Completed
De La Cruz, Arvin R.	Optical Character Reader for the Blind	2018 – 2019	Personal	Completed
De La Cruz, Arvin R. Tenerife Jr., Pedrito M.	Image-Based Microalgae Cell Identifier and Counter	2018 – 2019	Personal	Completed
Ado, Remedios G. Mahaguay, Rolito L.	Development of e-Bag Wireless Charger for Gadgets	2017 – 2018	Personal	Completed
De La Cruz, Arvin R. Tenerife Jr., Pedrito M.	Design and Development of a Hybrid Photobioreactor for Biomass Production of Spirulina Platensis Species	2017 – 2018	Personal	Completed
Tenerife Jr., Pedrito M. Tubola, Orland D.	The Development of a Hybrid Renewable Energy: Powered Light Bouy System Harnessing Sea Energy Potentials	2017 – 2018	Personal	Completed
Cansino, Julius S. Tenerife Jr., Pedrito M. Fernando, Ronald D. Mahaguay, Rolito L.	College of Engineering Online Class Record	2017 – 2018	Personal	Completed



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Natividad, Ferdinand O. Oquindo, Florinda H.				
Dela Cruz, John R.	Design of a Fuzzy-based Automated Organic Irrigation system for Smart Farm	2016 – 2017	Personal	Completed
Dela Cruz, John R.	Fuzzy-based Decision Support for Smart Farm Water Tank Monitoring	2016 – 2017	Personal	Completed
Tubola, Orland D.	Lung Disease Identification and Classification through Neural Networks	2015 – 2016	Grant in Aid (PUP)	Completed
Remedios G. Ado	Evaluation of SMART Wireless Engineering Education Program (SWEEP): Basis for a Proposed Integrated Model of Collaboration Between Industry and Academe	2014 – 2015	Personal	Completed
Ferdinand O. Natividad	Computer Engineering Laboratory Equipment Reservation and Monitoring System with Mobile Application	2014 – 2015	Personal	Completed
Remedios G. Ado	Engineering Academe Industry Partnership Towards Learning Exploration	2014 – 2015	Personal	Completed
Remedios G. Ado	Mobile Emergency Response Application Using Geolocation for Command Center	2013 - 2014	Personal	Completed
Natividad, Ferdinand O.	Enhanced Voiced Based Cane For The Blind With Anti-Lost Feature For The Resources Of The Blind Inc.	2012-2013	Personal	Completed
Oquimdo, Florinda H.	Groundwater Treatment using Bio-sand Filter in Sitio Centro Brgy. Cogunan Nasugbu, Batangas	2012-2013	Personal	Completed

Prepared by


 Pedrito M. Tenerife Jr.



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Awards Received



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EXCELLENT ORAL PRESENTATION CERTIFICATE

**2014 International Conference on Information
Security and Artificial Intelligence**

Hanoi, Vietnam

February 27-28, 2014

AFFILIATED TO

The Chairman & the Board of Directors of ICISAI 2014 Conference

Certify that

Remedios A. Ado

**Participated in the 2014 International Conference on
Information Security and Artificial Intelligence
Your oral presentation has been selected as the best one of
this conference**


Session Chair

For and on behalf of
**SCIENCE AND ENGINEERING INSTITUTE
Conference Committee**

Authorized Signatory



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CERTIFICATE
 OF BEST PAPER



19th World Conference on
APPLIED SCIENCE, ENGINEERING AND TECHNOLOGY-2019
 16th - 17th May 2019 | Bangkok

This it to certify that

Arvin Roxas De La Cruz

has presented his/her research paper titled

Optical Character Reader of a Braille Unicode System for the Blind

which has been awarded as **Best Research Paper in 19th WCASET-2019**
 held on 16th - 17th May 2019 at Bangkok.

Dr. Singam Jayanthu
 Professor
 Department of Mining Engg.
 National Institute of Technology, India



Maria Visitacion Gumabay
 Associate Professor 3
 School of Information Technology and Engg.
 St. Paul University Philippines
 Tuguegarao City, Philippines

Mr. Rudra Bhanu Satpathy
 Chief Executive Officer
 IFERP

