**RESEARCH DISCLOSURE FORM**

|  |  |
| --- | --- |
| Department/College: | EE/MITL |
| Research Title: | Automated DC Machinery Laboratory |
| Proponents:  Email/Mobile #: | Ar-Jhay Marcaida, John David Muniz, Cesar G. Manalo, Jr.  [arjhaymarcaida@gmail.com](mailto:arjhaymarcaida@gmail.com), 09994778390  [jjddmunizdw@gmail.com](mailto:jjddmunizdw@gmail.com), 09229206355  [cgmanalojr@gmail.com](mailto:cgmanalojr@gmail.com), 09282012500 |
| Status of Research | New Continuing Duration of Project: 10 mos.  xxxx |
| Nature of Research: | X Faculty-Driven Integrative Courses   * Graduate Thesis/Dissertation * Commissioned Research (Name of Industry/community partner:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) * Action Research * Program/College-Driven Research * Research with External Funding (Name of Funding Agency) * Collaborative Research (Name of Industry/community partner:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) * Others: (Please Specify) |
| Research problem: | Currently, Dc machinery laboratory is done by using a separate manual and doing what the manual says on the EMS Labvolt and this takes time in executing the experiment. Also, adjustments in voltage, current, and resistance is done mechanically via knobs resulting in not so fine values. |
| Background of the Study: | To address the research problem, the proponents will build a separate prototype board where instruments and power needed by the machines will come from. This board will be connected to a computer, where an application program will run showing the laboratory manual in its entirety. The manual will be interactive - meaning the behavior of the machines on the EMS can be controlled from the application itself. Data readings can also be extracted from the application and entered directly on the manual. |
| MCL Equipment/ Facilities to be utilized: | EMS/Labvolt and modules needed in carrying out the dc laboratory experiments. |
| Target Conference/ Journal Publication | International Conference on Advances in Electronics Engineering |
| Date & Venue | August 2020, Taiwan |

**P**repared by:

Cesar G. Manalo, Jr.

Proponent/Date

Endorsed by: Noted by:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Research Coordinator/Date Dean/Date

Received by:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ORPC Director/Date