

ProWESS: Web and Mobile Application for Data-Driven Scholarship Monitoring and Workforce Enablement in Davao del Sur

Mr. Eduard L. Pulvera, Ms. Joane May B. Delima, Mr. John Raven T. Manulat, Dr. John Vianne B. Murcia, & Mr. Conrado Jr. B. Panerio

UM Digos College

Email: eduard_pulvera@umindanao.edu.ph

SDG Focus

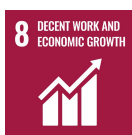
KEY POINTS



Purpose: Streamlines scholarship management, enhances data-driven decision-making, and connects scholars with employment opportunities through skills-matching technology.



Target Beneficiaries: Provincial Capitol Scholars of Davao del Sur, the Provincial Capitol, the Public Employment Service Office (PESO), HEIs, and local industry partners.



Major Activities: Implements an integrated web and mobile platform for online scholarship application, monitoring and renewal, data analytics, and AI-driven skills matching between scholars and employment opportunities.



Key Partners: Local HEIs and industry partners



Key Outcomes: Integrated web and mobile system, improved the efficiency and transparency of scholarship administration, enabled data-driven monitoring and decision-making, strengthened university–government–industry collaboration

PROJECT DESCRIPTION

ProWESS (Provincial Workforce Enabling System thru Scholarships) is a DOST- funded initiative developed under the Good Governance through Data Science and Decision Support System (GODDESS) program. The initiative was undertaken by the UM Digos College to build an integrated web and mobile platform functioning as a scholarship registry, monitoring dashboard, and job-matching prediction system for the Province of Davao del Sur.

The system's main purpose is to digitize and enhance the scholarship application, monitoring, and renewal process for the Provincial Public Employment Service Office (PESO) and the Provincial Capitol of Davao del Sur, replacing manual, paper- based workflows with a unified, data analytics-driven platform. The web application (accessible at www.davsurprowess.com) serves as the central scholarship registry and administrative monitoring dashboard used by PESO and Provincial Capitol personnel to evaluate applications, visualize scholar data and academic trends, and manage job postings, while the companion Android mobile application gives Capitol Scholars direct, on-the-go access to apply, upload requirements, and track their status. Together, the two platforms deliver three core features: Online Scholar Application, Data Analytics, and Skills Matching. The last feature compares scholars' skills, qualifications, and preferences against industry-posted opportunities to generate job-matching predictions.

The primary beneficiaries of the project are the Provincial Capitol Scholars of Davao del Sur, with the University of Mindanao as the implementing higher education institution, the Provincial Capitol as government partner, and local industries as employment- matching partners. ProWESS has been in active development and rollout since 2024, with core modules for registration, OTP-secured authentication, application processing, the web-based monitoring dashboard, and the mobile user dashboard now completed and publicly accessible.

TANGIBLE OUTCOMES

Impact to the University

ProWESS positions UM Digos College as a direct technology partner of a DOST- funded, provincial government-endorsed initiative, strengthening the institution's research and innovation portfolio in applied web and mobile systems and data science. Designing and maintaining two interoperable platforms, a full-stack web application with an administrative monitoring dashboard, and a companion Android mobile application, gave students and faculty involved real-world, industry-grade software development experience spanning UI/UX design, secure authentication (OTP-based), database management, data visualization, and predictive analytics for skills matching. This dual-platform scope broadens the institution's demonstrable capability beyond mobile development into full-cycle, decision-support system engineering, strengthening its case for further externally funded projects and formal partnerships with DOST, the Provincial Capitol of Davao del Sur, PESO, and other participating industries.

Impact to the Community/Society

The system directly benefits four stakeholder groups. Student scholars gain a convenient, always-available channel through either the web portal (www.davsurprowess.com) or the mobile app, to register, apply, upload requirements, and track their scholarship and renewal status, replacing a manual, paper-based process prone to delay and error. The UM Digos College, as implementing higher education institution, gains a live platform demonstrating applied research value to its government and industry partners. The Provincial Capitol and PESO, as government partners, benefit from the web-based monitoring dashboard's centralized, data-driven view of scholar records, enabling faster and more accurate eligibility evaluation, renewal decisions, and program-wide trend analysis. Industries, as the fourth beneficiary group, gain access to a qualified, pre- matched pool of scholars whose skills and preferences are

algorithmically compared against posted opportunities, streamlining recruitment and workforce planning.

Impact to SDGs

ProWESS operationalizes several SDG targets at the local government level. By easing access to scholarship benefits for economically disadvantaged students through both web and mobile channels, it contributes measurably to SDG 1 and SDG 4, helping sustain educational participation among scholars who might otherwise face financial or administrative barriers to continuing their studies. Its skills- matching feature advances SDG 8 by algorithmically connecting scholars' qualifications and preferences to employment opportunities posted by industry partners. As an integrated, data-driven decision-support system embedded within provincial governance, it exemplifies SDG 9's call for innovation in public infrastructure and SDG 16's emphasis on transparent, accountable institutions, with the web dashboard providing PESO and the Provincial Capitol continuous, auditable oversight of the scholarship program. Finally, by formally bringing together a higher education institution, provincial government offices, and private industries around one shared platform, ProWESS is itself a working example of SDG 17's call for multi- sector partnerships — a replicable model for other DOST-funded, university– government– industry digital governance initiatives in the region.

SUSTAINABILITY PLAN

To ensure the long-term sustainability of ProWESS, the University of Mindanao Digos College will continue strengthening its partnership with the Provincial Government of Davao del Sur, the Public Employment Service Office (PESO), the Department of Science and Technology (DOST), and industry partners to support the system's continuous operation, enhancement, and utilization.

Regular system maintenance, security updates, user training, and technical support will be conducted to ensure reliable service delivery, while data analytics and user feedback will guide ongoing improvements to scholarship management and skills-matching

functionalities. The platform will be integrated into the Provincial Capitol's regular scholarship operations, with opportunities to expand its features, accommodate additional scholarship programs, and strengthen employment linkages.

As a scalable and replicable digital governance solution, ProWESS can also be adopted by other local government units and higher education institutions to improve scholarship administration, workforce development, and evidence-based public service delivery.