



SDG 09

Industry, Innovation and Infrastructure

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



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Revolutionizing Dental Care: Universitas Padjadjaran's VR Hypnosis Innovation Shines at BIC 2024

Innovation has always been the driving force behind research at Universitas Padjadjaran. By fostering creativity and multidisciplinary collaboration, Unpad transforms groundbreaking ideas into solutions that address real-world challenges. A prime example of this vision is the Virtual Reality Dental Hypnosis (VRDH), introduced in 2024 to revolutionize dental care.

VRDH was designed to tackle three major challenges in dentistry: patient anxiety, sedative allergies, and communication barriers between dentists and patients. Led by Dr. drg. Gilang Yubiliana, M.Kes., CH-t, FISDPH, FISPD., this initiative combines hypnosis techniques with cutting-edge virtual reality technology to create a more comfortable, safe, and mentally supportive dental experience.

Equipped with a biofeedback console, VRDH monitors patients' brainwaves in real time, allowing professionals to measure and manage anxiety during treatment. Its expert supervision module ensures safe and high-quality use under the guidance of qualified specialists, while its multi-application capability extends its benefits beyond dentistry to address various forms of anxiety, phobias, or trauma.

The innovation has earned recognition at the prestigious Business Innovation Center (BIC) 2024, standing out among 306 proposals and securing a spot among 80 finalists evaluated by industry leaders, academics, and top innovators. VRDH exemplifies how Unpad's commitment to innovation translates research into transformative solutions that improve people's lives.





Unpad Drives Innovation Through Strategic Industry Collaboration

In 2024, Universitas Padjadjaran (Unpad) strengthened its commitment to applied research by collaborating closely with industry and government. At the “Food, Innovation, and Innovation Appreciation Exhibition 2024” in Jatinangor, Unpad recognized outstanding innovations from its academic community, highlighting technological, social, and health solutions that address real-world challenges in the food sector.

Highlighted innovations include Noir Primadona Purba from the Faculty of Fisheries and Marine Sciences (technological innovation), Prof. Dr. Ganjar Kurnia, DEA. from the Center for Digitalization and Development of Sundanese Culture (social innovation), and Riezki Amalia, M.Si., Ph.D. from the Faculty of Pharmacy with the UPro Real Time PCR Porcine Detection Kit, which enables rapid detection of non-halal content in food and health products. These achievements demonstrate how Unpad translates research into practical solutions that benefit society.

Strategic industry partners played a key role in supporting these innovations, including PT Prodia Diagnostic Line (Proline), PT Cendo Pharmaceutical Industries, PT Kalbe Farma Tbk, PT Habbatussauda Internasional, PT Sains Inovasi Indonesia, PT Berdikari, PT Great Giant Pineapple, PT Biomol Nusantara Mandiri, PT Pustaka Jaya, PT Subur Indo Amerta, PT Bukit Asam, Japan Premium Vegetables, PT Pakar Biomedika Indonesia, and British Council. By leveraging these collaborations, Unpad ensures that its research is not only innovative but also impactful, creating solutions that advance industry, technology, and societal welfare in West Java.

Celebrating Unpad's Innovation Achievements in 2024

In 2024, Universitas Padjadjaran (Unpad) achieved remarkable success in research and product innovation, driven by its dedicated lecturers and laboratory staff. From the Faculty of Pharmacy, Dr. Riezki Amalia, S.Si., M.Si., Ph.D., developed the U-Pro Real Time PCR Porcine Detection Kit, a rapid detection tool for porcine compounds in food and health products. Produced in collaboration with PT Prodia Diagnostic Line (PROLINE), this innovation earned second place at the RINTEK Award 2024 by the Ministry of Industry, demonstrating how university-led research can be translated into industry-ready solutions.

In the Faculty of Medicine, Prof. dr. Bachtis Alisjahbana, Sp.PD-KPTI., Ph.D., received the Habibie Prize 2024 for Talenta Unggul, recognizing his outstanding contributions to medicine and biotechnology and highlighting Unpad's global impact in research.

From the Faculty of Nursing, laboratory staff Tian Pradiani, in collaboration with ITB, created My Arm, a hand-shaped phantom simulator for arterial blood sampling training. Integrating microcontroller technology and real-time feedback, this innovation enhances practical skills for nursing students and earned second place in the Karya Inovasi Laboran 2024 competition. My Arm also received a Special Award from the Ministry of Health Malaysia during the ITEX 2024, highlighting its significant impact on healthcare training.

Additionally, Unpad's contributions in social innovation were recognized during the Unpad Awards 2024, with accolades in the Social Community Innovation category for programs that empower communities and address social challenges.

These achievements collectively demonstrate Unpad's commitment to fostering innovation across both technological and social domains, translating research into impactful products and solutions that benefit industry, society, and the wider community.



Empowering Student Innovation: Unpad and BRIN Inspire the Next Generation of Innovators

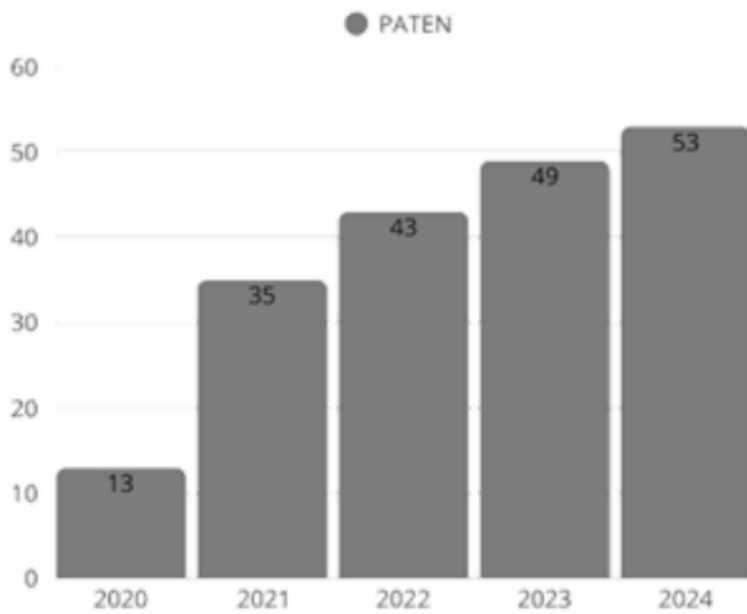


In July 2024, Universitas Padjadjaran (Unpad), in collaboration with the National Research and Innovation Agency (BRIN), hosted the inaugural “BRIN Goes to Campus: Unpad Creators & Innovators Expo 2024” with the theme “Research and Innovation for a Progressive Indonesia.” The event, held at Bale Sawala, Unpad Rectorate, Jatinangor, showcased innovative student projects and served as a platform for students to develop creative solutions to societal challenges. Rector Prof. Rina Indiasuti emphasized that student-led research and innovation are crucial for benefiting society and preparing the next generation to contribute to Indonesia Emas 2045, while BRIN Secretary-General Nur Tri Aries Suestiningtyas highlighted the importance of sustainable collaboration between universities, students, and innovators.

Through initiatives like the expo, Unpad demonstrates its commitment to fostering a culture of innovation and research excellence among students. By providing opportunities to explore, create, and apply knowledge and technology, Unpad ensures that student innovations not only advance scientific and technological capabilities but also generate meaningful solutions for the community and national development.

Development of Intellectual Property Rights Charts

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