Since mid-2023, the Universidade Estadual de Campinas (UNICAMP) has developed many activities concerning the SDGs, some of which, with their links, are mentioned in the subsequent paragraphs.

The publication of the Books '<u>Vulnerable Populations: Unicamp and Public Ministry of Labor</u>' and '<u>Vulnerable Populations – Child Labor</u>'.

The UNICAMP has space, <u>UNICAMP Childhood and Adolescence Observatory (OiA)</u>, an open, plural, and intersectoral space involving segments interested in defending and building propositions and practices favoring childhood and adolescence. It has established itself as an interdisciplinary collective space for dialogue. It also aims to be an intersectoral center of national and international reference on public policies for the target population. The <u>Goals</u> are: to create a sociodemographic database on childhood and adolescence in Campinas region; to design a system of indicators on childhood and adolescence based on the creation of an open platform; to promote space to promote research through the creation of interdisciplinary working groups, disseminating studies and methodologies; Organize events and forums; Promote education and training space for public policy managers and professionals, society in general, and those interested in the topic; Implement a repository of information and documents on childhood and adolescence; Assist in the development, implementation, and monitoring of public policies aimed at children and adolescents; Support the dissemination of good practices; Identify and develop a cooperation network and partnerships on childhood and adolescence.

The <u>Unicamp Human Rights Academic Recognition Award – Vladimir Herzog Institute 2023</u> is an initiative that highlights research committed to defending life and strengthening human dignity, including undergraduate and postgraduate work at universities and institutions of higher education and scientific development in the State of São Paulo. The award, organized by the <u>Executive Directorate of Human Rights (DeDH)</u> and the Vladimir Herzog Institute, is supported by the Rector's Office and aims to recognize scientific production connected with human rights, showing that its issues can guide actions aimed at expanding knowledge.

The National Meeting of Indigenous Students (ENEI), an annual event led by indigenous students and researchers, has established itself as the main space for academic discussion on Brazil's indigenous peoples. The <u>annals of the IX ENEI</u> bring together summaries of the research presented in this edition, which took place in 2022 at the UNICAMP in Campinas. The publication thus presents a national overview of research carried out by indigenous students and researchers in different regions of the country and all areas of knowledge.

The São Paulo School of Advanced Science "<u>Co-creating biodiversity assessments</u>," produced and organized by the postgraduate course in ecology at the Institute of Biology (<u>IB-Unicamp</u>) which took place in October 2023, in the city of São Pedro, State of São Paulo. With support from <u>FAPESP</u>, the school aimed to train young scientists and environmental technicians to obtain and critically analyze biodiversity data more effectively to meet concrete demands. The event brought together researchers dedicated to investigating different aspects of biodiversity with representatives from different segments of users of this information. Topics included biodiversity restoration and management actions, the maintenance

of ecosystem services and functions in different use regimes, and the sociocultural uses of biodiversity.

The Innovation Agency (<u>Inova Unicamp</u>) opened free registrations, for anyone over 18 which form a team of 3 to 5 people, for the <u>Unicamp 2024 Challenge</u>, the University's main entrepreneurial activity. The Unicamp Challenge is a competition that offers training in various entrepreneurial tools so that participants can develop a business model based on one of Unicamp's technologies available in the competition's portfolio.

The <u>Sustainable Campus Project</u> is a partnership between Unicamp and CPFL Energia that began in August 2017. It aims to improve the campus infrastructure and, through the study and development of new technologies, improve teaching and research, transforming Unicamp into the largest Living Energy Sustainability Laboratory in Latin America. In the next paragraphs, several subprojects and initiatives of this major project are listed.

The campus offers a free internal circular transport system for all people circulating there. One of the buses is a fully <u>electric bus</u>, which features a sustainable electric station with its photovoltaic generation and energy storage system. Furthermore, in the near future, all buses and charging stations will have a broad real-time monitoring system, which will allow the analysis and proposal of solutions to mitigate socio-environmental, technical, and economic problems due to the use of this technology in urban environments.

The 'Microgrids' project can be defined as a local electrical energy distribution and consumption network that can operate autonomously and isolated from the utility's distribution system to maintain local energy supply. To this end, it consists of the intelligent and controlled integration of several distributed generation resources and energy and load storage devices. Its importance is linked to the possibility of an alternative to the leading electrical energy distribution network and contributing to the growth of distributed energy generation, from clean energy production, such as solar and wind energy, to integrating batteries. This initiative is part of the MERGE research and development project: Microgrids for Efficient, Reliable, and Greener Energy. This project aims to size, develop, plan, test, and implement four microgrids at different levels of maturity and flexibility: laboratory, demonstration, campus university, and residential/condominium. Thus, the MERGE project aims to enable a more reliable supply of electricity from renewable and local sources, contributing to more sustainable energy consumption.

The Energy Contracting Subproject of the Sustainable Campus Research and Development Project was created to study Electricity Contracting at the UNICAMP. UNICAMP has been the only Brazilian university in the Free Energy Market as a Free Consumer since 2002. At the end of this project, the aim is to deliver a complete migration and hiring model of energy contracting for Public Universities. A model and a tool for continuous evaluation of Unicamp's electricity purchase contract will be created concerning market variations according to expected future projections, and with warnings about extrapolation of contracted values or fines for excess reactant.

To improve and train the professionals of the future through the dissemination of the technical-academic knowledge acquired by this <u>Sustainable University project</u>, this initiative is responsible for uniting the results and knowledge acquired by all previous subprojects and

transforming them into <u>disciplines</u>, <u>lectures</u>, <u>training</u>, <u>teaching materials</u>, <u>and instructional</u> <u>book</u>, to instruct other public-private institutions in the implementation of sustainability in their management and operations, ensuring the country's growth towards technological and sustainable competitiveness.

<u>Working Group</u> bringing together teachers and collaborators with expertise in specific energy and planning topics to: Develop an Energy Management Program on Unicamp Campuses to reduce energy consumption. Develop management programs and technical procedures with the participation of the Bodies of Unicamp's management and operational structure, responsible for implementing the actions resulting from them. Analyze annual energy performance reports from the University's units and bodies.

<u>Mini Operations Center</u> is a subproject that aims to implement a mini intelligent data center for the consumption and operation of electrical networks for Unicamp's Campus in Campinas. It will do this by installing smart meters in all consumer units (colleges, institutes, laboratories, interdisciplinary centers, administration, etc.) to monitor each consumer unit's real and daily consumption.

The implementation of renewable generation at Unicamp is an important initiative to reduce the cost of purchasing energy from the university, encourage and publicize the area of <u>photovoltaic generation</u> in the country, and establish a living laboratory for research, training, and the training of technicians and generation specialists in photovoltaic energy. On the main campus of UNICAMP in Campinas-SP, 534 kWp of photovoltaic generation is installed.

The <u>IoT-based energy management</u> is a subproject that aims to develop a tool for energy management at Unicamp, integrating supply and demand with smart efficiency (continuous efficiency) of behavioral elements, supporting management, and monitoring energy efficiency programs in real time. The implementation will take place with a pilot at the <u>Faculty of Mechanical Engineering</u>, with low-cost market hardware and free software, based on Arduino with radio frequency. This continuous monitoring of the internal conditions of efficient zones, such as heat map, humidity, luminosity, gases, presence, etc.; an induced behavioral component is introduced to continuously increase Efficiency, instructing users on the best ways to consume electrical energy, with suggestions for saving energy through changes in habits, maintaining the level of thermal, lighting and comfort ventilation.