Swami Rama Himalayan University

NAAC A+

Report on

Sustainable Development Goal 9

INDUSTRY, INNOVATION AND INFRASTRUCTURE

SDG 9 Industries, Innovation and Infrastructure

Executive Summary

At Swami Rama Himalayan University (SRHU), innovation, industry engagement, and infrastructure development are fundamental to its vision of building a self-reliant and sustainable future for society, guided by the philosophy of its founder, H.H. Dr. Swami Rama. The University blends scientific excellence with a humanitarian mission, ensuring that innovation not only fuels industry and technology but also uplifts lives in the Himalayan region and beyond.

SRHU recognizes that technological progress and resilient infrastructure are cornerstones of social and economic growth. SRHU's efforts, deeply aligned with the goals for Industry, Infrastructure, and Innovation, focus on three interconnected pillars: industry integration, fostering innovation, and developing resilient infrastructure to empower communities through knowledge, entrepreneurship, and applied research. This commitment directly supports global sustainable development.

To further this mission, SRHU champions innovation and entrepreneurship through its state-of-the-art incubation centre, the Himalayan Centre for Innovation and Entrepreneurship. This centre focuses on the upliftment of students and the wider community by providing opportunities, resources, need-based financial assistance, and guidance. Furthermore, it specifically targets providing pathways to improve the economic status of underprivileged community members, women, and students. Building on this foundation of innovation and technology, SRHU is also establishing the ACIC-Swami Rama Himalayan University Innovation and Incubation Centre, a Section 8 company, which has been principally approved by NITI Aayog, with grant-in-aid pending.

The academic staff maintains a strong focus on research activities, evidenced by over 2000 research papers published in national and international journals since its inception in 2013. Demonstrating a commitment to international quality, over 700 of these publications are indexed in prestigious global databases, including Scopus. Furthermore, the University maintains its Intellectual Property Rights (IPR) Cell to ensure every research output receives due IPR protection.

SRHU provides world-class infrastructure to promote innovation, industry collaboration, and research excellence. Spread across a 200-acre green campus, the university houses advanced laboratories, digital classrooms, innovation lounges, and a super-specialty teaching hospital that integrates learning with practice. The Himalayan Hospital and Research Centre specifically serve as a living laboratory for healthcare innovation and applied medical research. Smart classrooms and digital learning platforms ensure students and researchers have access to modern tools and technologies. These facilities are supported by a commitment to sustainable infrastructure, including water management via an on-campus Sewage Treatment Plant (STP), efforts to reduce the institution's carbon footprint, Paper Recycling Plant, and the integration of renewable energy sources.

9.1 Research on Industries, Innovation and Infrastructure

Swami Rama Himalayan University (SRHU) actively promotes research that advances the goals of sustainable industrial growth, innovation, and resilient infrastructure. The university’s research ecosystem integrates multidisciplinary collaboration across engineering, biosciences, management, and health sciences to generate impactful solutions addressing regional and national challenges.

Infrastructure Development and Industrial Modernization

Research at SRHU emphasizes technological innovation and applied research aimed at improving industrial processes, promoting sustainable product development, and fostering digital transformation in various sectors.

- **Key Research Areas:** Faculty and students engage in projects focusing on renewable energy solutions, bioengineering innovations, food processing, and rural infrastructure development with support from Rural Development Institute (RDI).
- **Impact:** These initiatives are designed to enhance productivity, efficiency, and sustainability in both emerging and traditional industries, directly contributing to industrial modernization and the creation of durable, quality infrastructure.

In addition, SRHU's research in environmental sustainability in infrastructure includes water management, green building design, and climate-resilient construction practices suited to the Himalayan terrain. This focus ensures that new infrastructure is built to be resilient and sustainable.

Fostering Innovation and Industry Collaboration

Through the Himalayan Centre for Innovation and Entrepreneurship (HCIE), SRHU strengthens the bridge between research and industry.

- **Translational Support:** HCIE supports translational research, incubation, and technology commercialization. For example, Canfinis Therapeutics, incubated at HCIE, is being provided translational research facilities at CRI (Cancer Research Institute, SRHU).
- **Partnerships:** Collaborative research with industry partners enables the development of prototypes, process innovations, and business models that contribute to industrial modernization and sustainable infrastructure. This approach ensures that research outputs are effectively utilized to drive inclusive innovation.

Enhancing Access to Services for Underserved Areas

SRHU's commitment extends to ensuring equitable access to essential services, particularly in rural and underserved regions.

- **Healthcare Infrastructure:** The university's research in healthcare infrastructure and public health systems plays a critical role in designing scalable, resilient, and community-centred service models for these areas.
- **Technological Focus:** Projects focusing on smart healthcare technologies are integral to developing infrastructure and service delivery mechanisms that are accessible, appropriate, and beneficial to the entire population.

Through this integrated approach to research and innovation, Swami Rama Himalayan University contributes to the creation of knowledge and technologies that strengthen industry, drive inclusive innovation, and build sustainable, resilient, and inclusive infrastructure — thereby improving access to basic services for all, particularly through its focus on rural healthcare and infrastructure development.

Research and Innovation Facilities at SRHU

Swami Rama Himalayan University (SRHU) has established a robust framework of research facilities and initiatives that drive innovation and strengthen the technological infrastructure, fostering a path towards self-reliance and development.

The University's commitment to cutting-edge research and innovation is demonstrated through several dedicated facilities and centres:

Advanced Research Centres and Infrastructure

- **Central Research Facilities:** These act as a central hub to facilitate student research and learning, supporting a broad spectrum of investigations in areas like Haematology, Clinical Biochemistry, Serology, Virology, Histopathology, and Immunohistochemistry. For more information, please visit Central Research Facility
- **Central Diagnostic Laboratory:** Housed in a dedicated building, this laboratory is equipped for advanced diagnostics, including **Flow Cytometry, RT-PCR, and high-tech Molecular Lab tests**. It also features a unique **pneumatic-chute system** for instant blood sample transfer from hospital wards, representing an advancement in diagnostic infrastructure. For more information, please visit Diagnostic Laboratory
- **Centre of Excellence in Artificial Intelligence & Data Insights (CE-AIDI):** This premier hub for AI, Machine Learning, and Data Science research supports cutting-edge inquiry, industry-driven learning, and the translation of theoretical insights into real-world applications across various domains, including healthcare. For more information, please visit Centre for Excellence at SRHU
- **Specialized Research Labs:**
    - **Centre for Advanced Research in Molecular Biology:** Focuses on high-precision research, including an Advanced Molecular Biology (OMICS) Laboratory equipped with instruments like Automated DNA/RNA Extractor, Real-Time PCR (qPCR), and Bio-Spectrophotometer with Nanodrop. For more information, please visit Research Facilities at SRHU
    - **Centre for Advanced Research in Animal Cell Culture:** Provides resources for research in this specialized area. For more information, please visit Centre for Advance Research in Animal Cell Culture
    - **Cancer Research Institute (CRI):** Maintains a massive cancer registry and conducts research in areas like Head and Neck cancer, Bio-resonance Therapy, and integrates Alternate Medicine (Ayurveda/Yoga) in patient care. For more information, please visit Cancer Research Institute
    - **Referral Centre for Diagnostics and Research:** A specialized facility with approximately 30 sophisticated state-of-the-art instruments to cater to interdisciplinary research applications. For more information, please visit Research Facilities at SRHU
- **School of Science & Technology Labs:** Includes specialized laboratories for domains such as IoT (Internet of Things), Drone Technology, Cloud Computing & Virtualization, and various programming labs, enabling research in frontier technologies.

Innovation and Entrepreneurship Ecosystem

SRHU actively promotes innovation to translate research outcomes into societal and commercial products:

- **Himalayan Centre for Innovation and Entrepreneurship (HCIE):** This centre provides a robust incubation support system to students, researchers, and faculty. It offers co-working spaces, research labs, computer workstations, a fabrication lab, and mentorship, aligning with the goal of creating an educational system oriented towards entrepreneurship. For more information, please visit Centre for Innovation and Entrepreneurship
- **Intellectual Property Rights (IPR) Cell:** Sanctioned by UCOST, the IPR cell facilitates all researchers in availing the facility with an aim to foster an environment where creativity and innovation can flourish,

providing support for filing patents and copyrights. For more information, please visit SRHU IPR Portfolio

- **Financial Support and Incentives:** The University provides in-house financial assistance (Intramural Grants) to encourage faculty and students for translational research projects and offers incentives for securing external funding and publishing work. For more information, please visit SRHU Intramural Research Project

Collaboration and Capacity Building

The University engages in strategic partnerships and internal mechanisms to strengthen the research ecosystem:

- **Research Consortiums and Collaborations:** SRHU is involved in research consortiums, such as the Global Consortium for Breast Cancer in Young Women (GCBCYW), and has collaborations with national and international institutions, including ICMR, UNICEF, WHO, and industry partners for internships and projects. For more information, please visit SRHU Research Consortium
- **Governance Structure:** A three-tier Governance & Monitoring Structure (University Research Committee, Institutional Research Committee and Research Advisory Committee) ensures strategic planning and continuous course correction for its research policy. For more information, please visit Research Advisory Committee; Institutional Research Committees
- **Human Capital Development:** The institution focuses on capacity building through seminars, symposia, hands-on workshops, and training programs in research methodology, statistical, and computer-based skills. Research is integrated early, starting from the undergraduate level.

Through this extensive infrastructure, dedication to interdisciplinary research, and support for transforming innovative ideas into commercial ventures, SRHU is building a resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation for regional and national development.

9.1.1 Industries, Innovation and Infrastructure: Publications

Swami Rama Himalayan University (SRHU) actively contributes to research publications by advancing knowledge in the domains of **industrial development, technological innovation, and sustainable infrastructure**. The university's multidisciplinary research ecosystem promotes studies that strengthen industrial development, foster technological innovation, and support the creation of sustainable, resilient infrastructure, particularly in the Himalayan region.

Focus and Scope of Published Research

Faculty and researchers at SRHU have published original research in peer-reviewed national and international journals. These publications emerge from collaborations among SRHU's engineering, biosciences, management, and health sciences faculties, as well as the clinical research faculties. The work emphasizes applied and translational research that bridges academic discovery with industrial relevance, thereby contributing to regional and national economic growth.

The published research addresses several key themes essential for advancing modern industrial and infrastructural resilience:

1. **Digital Transformation, AI, and Industry 4.0 Integration**

   This theme demonstrates SRHU's commitment to technological innovation for industrial and organizational efficiency, leveraging advanced computing and data science.

- **Focus Areas:**
    - **Smart Systems & IoT:** Applications of Wireless Sensor Networks, Node MCU systems, and Intelligent IoT-Enabled Real-Time Monitoring for logistics, agriculture, and infrastructure.
    - **AI and Data Analytics in Industry:** Application of Artificial Intelligence for supply chain success, smart manufacturing, and predicting blood levels of hemoglobin (biomedical application).
    - **Advanced Networking & Computing:** Research on 5G technology, Blockchain for Industry 4.0, Cyber Physical Systems, and cloud computing applications in business and the stock market.
    - **HR and Management:** Studies on the integration of technology (HR 4.0) for employer branding, talent management, and enhancing organizational innovation capability.

2. **Sustainable Industrial Processes and Waste Valorisation**

This cluster focuses on transforming industrial and biological waste into valuable resources, applying green chemistry principles, and developing sustainable alternatives for key products.

- **Focus Areas:**
    - **Circular Economy & Waste-to-Value:** Production of biofuels (biodiesel from fish waste), development of energy storage from fish waste, and valorization of agro-industrial by-products (e.g., coconut mesocarp, slaughterhouse blood) into nutritional or industrial resources.
    - **Green Chemistry:** Reviews and studies on using green modification techniques for starch, sustainable utilization of Himalayan exudate gums, and adopting green chemistry in the food industry to minimize environmental impact.
    - **Food Processing and Security:** Development of non-destructive approaches for quality assessment of fruits/vegetables, methods for decontamination (e.g., plasma treatment of mycotoxin), and enhancing food security through micro-algae production.

3. **Resilient Infrastructure and Environmental Biotechnology**

This area is dedicated to protecting and cleaning the environment—a necessity for sustainable infrastructure—and utilizing advanced materials and biological methods for treatment and remediation.

- **Focus Areas:**
    - **Wastewater Management and Bioremediation:** Extensive research on using advanced biotechnologies such as Microbial Fuel Cells (MFCs) for power generation and wastewater treatment, microbial biosurfactants, and constructed wetlands.
    - **Heavy Metal Detoxification:** Studies focusing on the role of rhizospheric bacteria and microbial exopolysaccharides in the remediation of environmental pollutants and heavy metals from industrial wastewater.
    - **Advanced Materials and Manufacturing:** Technical papers on the analysis and modelling of productive aspects in Electrical Discharge Machining (EDM) and material processes for industrial components (e.g., AISI A2 steel).
    - **Smart & Green Infrastructure:** Analysis of Smart City Solutions, integration of the circular economy in urban development, and research into climate-resilient water systems.

Commitment to Knowledge Creation

SRHU's increasing volume of publications in these areas reflects its commitment to generating scientific knowledge that drives sustainable progress in industrial and infrastructural domains. The university continues to strengthen its research capacity through faculty development, funded projects, and partnerships with industries and research organizations, ensuring that its scientific contributions remain impactful and future-focused.

Scopus indexed – SRHU affiliated publications:

For more information, please visit SRHU Research and Publications

Details of Scopus Indexed Publications aligned to SDG 9			
S. No	**Paper Title**	**Authors**	**Journal / Book Name**
1	Biodiesel (biofuel) production from fish waste: A sustainable approach to biodiesel production	Rajput, V.; Topwal, A.; Sharma, C.; Vijay, K.; Kumar, V.R.	Sustainable Chemistry One World
2	Advanced insights into Dioscorea tuber starch: Green modification techniques, functional properties, and industrial applications	Kunwar, T.; Gupta, A.K.; Naik, B.; Tavassoli, M.; Boruah, T.	Food and Humanity
3	Green and sustainable utilization of underutilized exudate gums from the Himalayan region: Advances in nutraceutical and pharmaceutical applications	Anand, A.; Nayak, P.; Boruah, T.; Naik, B.; Vijay, K.	Sustainable Chemistry and Pharmacy
4	A SWOT analysis of religious tourism in Kedarnath, Uttarakhand, India	Dhyani, A.; Rana, V.; Dimri, G.; Dimri, R.P.; Dhyani, A.	Challenges Opportunities and Limitations of Religious Tourism in the Next Decade
5	Sal (Shorea robusta) seed oil: A sustainable alternative for cocoa butter and edible oil	Thapa, D.; Naik, B.; Vijay, K.; Gupta, A.K.; Kumar, V.	Future Foods
6	Insights into Extraction methods of pigments from *Celosia cristata* L. flower: A review	Sidique Bahar, Q.; Shahi, N.C.; Richa, R.; Rustagi, S.; Vijay, K.	Journal of Agriculture and Food Research
7	A state-of-the-Art review on edible electronics: Next-generation technologies for biocompatible and ingestible devices	Kataria, P.; Gupta, R.K.; Gupta, A.K.; Tavassoli, M.; Kaur, S.	Trends in Food Science and Technology
8	Unveiling the Digitalization Dilemma: A Study of Business Analytics Adoption in Small and Mid-Sized Manufacturing Firms Post-COVID-19	Harish, V.; Sharma, R.; Rana, G.	Communications in Computer and Information Science
9	Strategic Integration of Green Human Resource Management and Circular Economy Principles for Sustainable Change Management	Trivedi, A.; Trivedi, N.	Approaches to Global Sustainability Markets and Governance
10	Next-generation cybersecurity system in integration with Artificial Intelligence and blockchain	Singh, R.; Gehlot, A.N.; Akram, S.V.; Sharma, R.; Malik, P.K.	Smart Electronic Devices Artificial Intelligence Machine Learning and the Future
11	Analysis of Smart City Solutions for Sustainable Urban Growth in India	Kaur, G.; Mishra, A.; Kumar, P.; Kapoor, G.	1st International Conference on Advances in Computer Science Electrical Electronics and Communication Technologies (CE2CT 2025)
12	Advancements in energy storage applications: harnessing the potential of fish industry waste	Rajput, V.; Naik, B.; Vijay, K.; Bhatt, S.C.; Rustagi, S.	Discover Materials

13	Green chemistry revolutionizing sustainability in the food industry: A comprehensive review and call to action	Gupta, A.K.; Boruah, T.; Ghosh, P.; Vijay, K.; Rustagi, S.	Sustainable Chemistry and Pharmacy
14	State-of-the-art non-destructive approaches for maturity index determination in fruits and vegetables: principles, applications, and future directions	Anjali; Jena, A.; Bamola, A.; Preet, M.S.; Akhtar, S.	Food Production Processing and Nutrition
15	Advanced technologies for realizing sustainable development goals: 5G, AI, big data, blockchain, and Industry 4.0 application	Bhatt, A.; Joshi, P.; Joshi, K.P.; Bijalwan, A.	Advanced Technologies for Realizing Sustainable Development Goals 5G AI Big Data Blockchain and Industry 4.0 Application
16	Slaughterhouse blood: A state-of-the-art review on transforming by-products into valuable nutritional resources and the role of circular economy	Gupta, A.K.; Fadzlillah, N.A.; Sukri, S.J.M.; Bhuyan, S.; Rustagi, S.	Food Bioscience
17	Integrating circular economy in smart cities: Challenges and pathways to sustainable urban development	Trivedi, A.; Trivedi, N.	Smart Cities and Circular Economy The Future of Sustainable Urban Development
18	Sustainable solutions for food security: Evaluating pre-treatment technologies in the growing fruits and vegetables industry of India	Joshi, A.; Gupta, A.K.; Mansi; Rustagi, S.; Preet, M.S.	Sustainable Chemistry and Pharmacy
19	Micro-algae: Revolutionizing food production for a healthy and sustainable future	Naik, B.; Mishra, R.; Vijay, K.; Bhatt, S.C.; Rizwanuddin, S.	Journal of Agriculture and Food Research
20	Conversational artificial intelligence at industrial internet of things	Siddharth, D.; Jang Bahadur Saini, D.K.; Ramchandra, M.; Loganathan, S.	Conversational Artificial Intelligence
21	Green human resource management and environmental performance: mediating role of green innovation – a study from an emerging country	Rana, G.; Arya, V.	Foresight
22	A study of women entrepreneurs as catalysts for sustainable development — An inspirational story of Uttarakhand well known “Mushroom Girl”	Bijlwan, S.; Joshi, S.; Singh, T.P.	Women Entrepreneurs Building Sustainable Business Models in Digital Spaces Case Studies and Experiences
23	Intelligent IoT-Enabled Real-Time Monitoring System for Logistics Management	Joshi, P.; Singh, V.; Thapliyal, N.; Bhatt, A.; Mahur, M.	2024 International Conference on Computing Sciences and Communications (ICCSC 2024)
24	Application of Artificial Intelligence for the Success of Supply Chain Operations in the Age of Data Analytics	Rana, G.; Sharma, R.; Parashar, B.	2024 International Conference on Smart Devices (ICSD 2024)
25	Node MCU and Lily Pad based Relay Protection System For Laboratory Micro-Grid	Malik, S.; Jain, S.; Tiwari, P.; Yamsani, N.; Al-Farouni, M.H.	2024 International Conference on Smart Devices (ICSD 2024)
26	Enhancing Diagnosis and Management of Conjunctivitis: Innovations, and Evidence-Based Strategies	Farswan, A.S.; Singh, M.F.; Dhasmana, A.; Kumar, G.; Jadon, V.S.	Proceedings 2024 International Conference on Healthcare Innovations Software and Engineering Technologies (HISET 2024)
27	Fishers 4.0: Revolutionizing Contemporary Fisheries Management through Industry 4.0 Integration	Joshi, P.; Bhatt, A.; Aggarwal, G.	Proceedings 2024 International Conference on Healthcare Innovations Software and

			Engineering Technologies (HISET 2024)
28	Revolutionizing Communication: The Dynamic Shift with 5G Technology	Gupta, V.	Proceedings 2024 International Conference on Healthcare Innovations Software and Engineering Technologies (HISET 2024)
29	United nations sustainable development goals in the context of hydrological extremes	Uniyal, A.; Kaushik, N.; Uniyal, H.P.	Water Sustainability and Hydrological Extremes Quantity Quality and Security
30	Minor flowers of European and American Countries	Uniyal, A.; Kumar, A.	Edible Flowers Health Benefits Nutrition Processing and Applications
31	Emerging Trends in Food and Agribusiness Marketing	Pant, S.C.; Venkatesh, V.G.; Panday, P.; Shukla, G.P.; Parhi, S.P.	Emerging Trends in Food and Agribusiness Marketing
32	A critical review on green approaches in shape and size evolution of metal nanoparticles and their environmental applications	Kumari, M.; Pandey, S.; Giri, V.P.; Nautiyal, C.S.; Mishra, A.	Environmental Nanotechnology Monitoring and Management
33	Plasma treatment: An alternative and sustainable green approach for decontamination of mycotoxin in dried food products	Ranjan, R.; Gupta, A.K.; Ravi, P.; Rustagi, S.; Preet, M.S.	Journal of Agriculture and Food Research
34	Agro-industrial waste: a cost-effective and eco-friendly substrate to produce amylase	Naik, B.; Vijay, K.; Rizwanuddin, S.; Kumar, V.; Gupta, S.	Food Production Processing and Nutrition
35	Current and emerging applications in detection and removal of bitter compounds in citrus fruit juice: A critical review	Gupta, A.K.; Dhua, S.; Nayak, P.; McClements, D.J.; Mishra, P.	Food Bioscience
36	Application of smart manufacturing in business	Parashar, B.; Chaurasia, A.; Sharma, R.	AIP Conference Proceedings
37	Nanotechnology for bioremediation of industrial wastewater treatment	Kumari, M.; Bora, J.; Dhasmana, A.; Sinha, S.; Malik, S.M.	Advanced Application of Nanotechnology to Industrial Wastewater
38	Energy from Waste: *Poterioochromonas malhamensis* Used for Managing Dairy Effluent and Producing Valuable Microalgal Lipid	Dhillon, N.; Gupta, S.; Kumar, V.R.; Bhandari, G.; Arya, S.	Journal of Pure and Applied Microbiology
39	Valorization of tender coconut mesocarp for the formulation of ready-to-eat dairy-based dessert (Kheer): Utilization of industrial by-product	Naik, B.; Vijay, K.; Gupta, A.K.	Journal of Agriculture and Food Research
40	Ebola Virus Disease Vaccines: Development, Current Perspectives & Challenges	Malik, S.M.; Kishore, S.; Nag, S.; Padhi, B.K.; Sah, R.K.	Vaccines
41	The Challenges of Wastewater and Wastewater Management	Kumari, S.; Dwivedi, S.; Khan, E.A.R.; Dhasmana, A.; Malik, S.M.	Advanced and Innovative Approaches of Environmental Biotechnology in Industrial Wastewater Treatment
42	Intelligent Supply Chain Orchestration: A Framework for Seamless Integration of Industry 4.0 Technologies	Harish, V.; Sharma, R.; Saini, R.K.; Negi, D.	Proceedings of the IEEE International Conference Image Information Processing
43	Sustainable Green Approaches for Wastewater Purification	Kumari, P.; Dhasmana, A.; Kishore, S.; Mukherjee, N.; Malik, S.M.	Advanced and Innovative Approaches of Environmental

			Biotechnology in Industrial Wastewater Treatment
44	Design of Atmel PLC and its Application as Automation of Coal Handling Plant	Pande, S.D.; Bhatt, A.; Chamoli, S.; Kute, U.T.; Hasane Ahammad, S.H.	2023 International Conference on Sustainable Emerging Innovations in Engineering and Technology (ICSEIET 2023)
45	Blockchain for the Internet of Things and Industry 4.0 Application	Siddharth, D.; Saini, D.K.J.B.; Kumar, S.	Handbook of Flexible and Smart Sheet Forming Techniques Industry 4.0 Approaches
46	Data-Centric AI Solutions and Emerging Technologies in the Healthcare Ecosystem	Khang, A.; Rana, G.; Tailor, R.K.; Abdullayev, V.H.	Data Centric AI Solutions and Emerging Technologies in the Healthcare Ecosystem
47	Role of Technologies in the Media and Entertainment Sector	Joshi, K.P.; Rastogi, R.; Kumar, S.S.; Saini, D.K.J.B.; Yadav, R.	Proceedings of the 2nd International Conference on Edge Computing and Applications (ICECAA 2023)
48	Rhizospheric bacteria: the key to sustainable heavy metal detoxification strategies	Joshi, S.; Gangola, S.; Bhandari, G.; Malik, S.M.; Sláma, P.	Frontiers in Microbiology
49	Development in intelligent autonomous agents for the high-level cognitive functions like reasoning, planning, learning and abstraction	Neelima, N.; Chandra Sekhar, J.N.; Pullagura, L.; Saini, D.K.J.B.; Pande, S.D.	Journal of Interdisciplinary Mathematics
50	Microbial exopolysaccharides and their application for bioremediation of environmental pollutants	Vijaylakshmi; Hemwati Nandan, R.M.; Chaudhary, S.; Bhandari, G.	Advanced Microbial Technology for Sustainable Agriculture and Environment
51	Remediation of heavy metals by rhizospheric bacteria and their mechanism of detoxification	Gangola, S.; Joshi, S.; Bhandari, G.; Bhandari, N.S.; Mittal, A.	Advanced Microbial Technology for Sustainable Agriculture and Environment
52	Cyber Physical System Role in Stock Market	Dhyani, A.; Bisht, D.; Kathuria, S.; Chhabra, G.; Tiwari, P.	Proceedings of 5th International Conference on 2023 Devices for Integrated Circuit Devic 2023
53	Innovation capability and effectiveness in public sector organisations: knowledge-based performance management practices	Rana, G.; Garg, P.	International Journal of Public Sector Performance Management
54	A Perspective Review on Microbial Fuel Cells in Treatment and Product Recovery from Wastewater	Malik, S.M.; Kishore, S.; Dhasmana, A.; Minkina, T.M.; Rajput, V.D.	Water Switzerland
55	Microbial Biosurfactants and Their Implication Toward Wastewater Management	Rawat, G.; Choudhary, R.; Kumar, V.R.	Handbook of Environmental Chemistry
56	Exploring Microbial-Based Green Nanobiotechnology for Wastewater Remediation: A Sustainable Strategy	Malik, S.M.; Dhasmana, A.; Preetam, S.; Singh, R.K.; Rajput, V.D.	Nanomaterials
57	Microalgae-based removal of pollutants from wastewaters: Occurrence, toxicity and circular economy	Bhatt, P.; Bhandari, G.; Bhatt, K.; Simsek, H.	Chemosphere
58	Algae in wastewater treatment, mechanism, and application of biomass for production of value-added product	Bhatt, P.; Bhandari, G.; Turco, R.F.; Bhatt, K.; Simsek, H.	Environmental Pollution
59	Disaster and Mental Health Preparedness in India: A Scoping Review	Haldar, P.; Viswanath, L.; Srivastava, A.K.; Sati, H.C.	Indian Journal of Community Health

60	Occurrence, toxicity impacts and mitigation of emerging micropollutants in the aquatic environments: Recent tendencies and perspectives	Bhatt, P.; Bhandari, G.; Bilal, M.Q.	Journal of Environmental Chemical Engineering
61	Dietary salt consumption pattern as an antecedent risk factor for hypertension: Status, vision, and future recommendations	Bhattacharya, S.; Bera, O.P.; Mohd Saleem, S.M.; Mehta, K.G.; Singh, A.J.	Clinical Nutrition ESPEN
62	Requirements of Applications of Wireless Sensor Networks for the Internet of Things	Saini, R.K.; Saini, M.K.; Sharma, R.	Internet of Things for Agriculture 4.0: Impact and Challenges
63	WHITE-LAYER THICKNESS ON EDM-PROCESSED AISI A2 STEEL - MATHEMATICAL MODELING AND ANALYSIS	Kumar, D.; Mer, K.K.S.; Payal, H.S.; Kumar, K.	Materiali in Tehnologije
64	Analytical and post analytical phase of an ISO 15189:2012 Certified cytopathology laboratory-a five year institutional experience	Chandra, S.; Kusum, A.; Gaur, D.S.; Chandra, H.	Journal of Cytology
65	RESIDUAL STRESS MODELING AND ANALYSIS IN AISI A2 STEEL PROCESSED BY AN ELECTRICAL DISCHARGE MACHINE	Kumar, D.; Mer, K.K.S.; Payal, H.S.; Kumar, K.	Materiali in Tehnologije
66	Microbial fuel cell united with other existing technologies for enhanced power generation and efficient wastewater treatment	Patwardhan, S.B.; Savla, N.; Pandit, S.; Kumar, V.R.; Prasad, R.	Applied Sciences Switzerland
67	Rhizobiont in Bioremediation of Hazardous Waste	Kumar, V.R.; Prasad, R.; Kumar, M.K.M.	Rhizobiont in Bioremediation of Hazardous Waste
68	Employer branding: Attracting and retaining employees for sustainable development in disruptive economy	Rana, G.; Sharma, R.	World Review of Science Technology and Sustainable Development
69	Revitalizing talent management practices through technology integration in industry 4.0	Sharma, R.; Rana, G.	Internet of Things and Businesses in A Disruptive Economy
70	Internet of things and businesses in a disruptive economy	Sharma, R.; Saini, R.K.; Prakash, C.; Vinod-Prasad, P.	Internet of Things and Businesses in A Disruptive Economy
71	Role of internet of things (IoT) in sustaining disruptive businesses	Prakash, C.; Saini, R.K.; Sharma, R.	Internet of Things and Businesses in A Disruptive Economy
72	Training needs identification and evaluating its effectiveness in India private sector	Rana, G.; Sharma, R.	Innovations and Challenges in Human Resource Management for HR 4.0
73	Application of cloud computing in businesses	Pant, Y.	Innovations and Challenges in Human Resource Management for HR 4.0
74	Innovations and challenges in human resource management for HR 4.0	Singh, R.; Rana, G.; Sharma, R.; Gehlot, A.N.	Innovations and Challenges in Human Resource Management for HR 4.0
75	Why the tremendous potential of uploading health educational material on medical institutions' website remains grossly underutilized in the era of the Fourth Industrial Revolution?	Bhattacharya, S.; Singh, A.J.	Journal of Education and Health Promotion
76	Constructed Wetland: A Green Technology for Wastewater Treatment	Choudhary, A.K.; Kumar, P.	Environmental Microbiology and Biotechnology Volume 1: Biovalorization of Solid

			Wastes and Wastewater Treatment
77	Optimization of micro hardness of Al-SiC 6061 MMC machined by wire EDM with taguchi method	Sharma, R.; Aggarwal, V.; Payal, H.S.	International Journal of Engineering and Advanced Technology
78	Study of the Pre-Analytical Phase of an ISO 15189: 2012-Certified Cytopathology Laboratory: A 5-Year Institutional Experience	Chandra, S.; Chandra, H.; Kusum, A.; Gaur, D.S.	Acta Cytologica
79	Application of Nanotechnology in Diagnosis, Drug Dissolution, Drug Discovery, and Drug Carrier	Mishra, A.K.	Nanotechnology in the Life Sciences
80	Microbial Bioformulations: Present and Future Aspects	Rani, U.; Kumar, V.R.	Nanotechnology in the Life Sciences
81	Water quality assessment and treatment of pharmaceutical industry wastewater: A case study of pharmacity Selaqui, Dehradun of Uttarakhand State, India	Gupta, S.; Dobhal, R.; Gupta, A.; Rani, U.; Kumar, V.R.	Phytobiont and Ecosystem Restitution
82	Fungal nanobionics: Principles and applications	Prasad, R.; Kumar, V.R.; Kumar, M.K.; Wang, S.	Fungal Nanobionics Principles and Applications
83	Employer branding analytics and retention strategies for sustainable growth of organizations	Sharma, R.; Singh, S.P.; Rana, G.	Understanding the Role of Business Analytics Some Applications
84	Mathematical modeling and analysis of productive aspects in Electro Discharge Machining of AISI A2 steel	Kumar, D.P.; Kumar, K.; Payal, H.S.; Mer, K.K.S.	Materials Today: Proceedings
85	Enhanced Text Recognition and Text-Blocks Detection using OCR	Rani, K.; Joshi, B.; Joshi, B.K.	12th INDIACom: 5th International Conference on Computing for Sustainable Global Development (INDIACom 2018)
86	Analysis and antimicrobial activity of volatile constituents from *Quercus leucotrichophora* (Fagaceae) bark	Sati, S.C.; Sati, N.; Sati, O.P.; Biswas, D.D.; Chauhan, B.S.	Natural Product Research
87	Estimation of quality of raw milk (Open & branded) by milk adulteration testing kit	Kandpal, S.D.; Srivastava, A.K.; Negi, K.S.	Indian Journal of Community Health

9.2 Patents Citing University Research

Swami Rama Himalayan University (SRHU) recognizes the role of technology, research, and innovation in driving **inclusive and sustainable industrialization**. The translation of academic knowledge into protectable inventions, measured by patents derived from or citing university research, demonstrates the university's impact on industrial modernization. SRHU is actively building a robust intellectual-property (IP) ecosystem to support this goal.

University-Linked Patent Activity

SRHU's research has produced several university-linked patents and patent applications, spanned into critical sectors and addressing regional challenges. These inventions showcase the shift from academic discovery to protectable, industry-ready technologies:

Selected Patent Activity	Relevance to Industrial & Technological Advancement
Strapless Facemask (Utility Patent): A lightweight, washable, reusable facemask design (Granted March 2024).	**Applied Product Innovation:** Relevant to healthcare and Personal Protective Equipment (PPE) supply chains, pointing to industrial diversification in medical devices.
Microbial Culture Apparatus / Microbiology Method (Utility Patent, reported Aug 2023).	**Biotech and Diagnostics:** A novel method to isolate single microorganisms, with high-volume applications in diagnostics, biotechnology, and laboratory processes.

Impact on Industrial Relevance and Technological Capacity

The university's patent portfolio indicates its commitment to generating measurable outcomes that benefit industry:

1. **Translation to Industry-Relevant Technologies:** Patents on medical devices (stent, facemask) and laboratory apparatus confirm that SRHU research is moving beyond publications into technologies that industry can license or manufacture, supporting diversification in medical devices and biotech.
2. **Regional Relevance and Sustainability:** Inventions focusing on biotech and pesticide degradation directly address local environmental and agricultural challenges, reinforcing sustainable industrial practices appropriate for the Uttarakhand economy.
3. **Capacity Building for Innovation:** Institutional IP promotion and training, including IPR workshops and celebrating World IP Day are key activities. These efforts increase patent awareness and capacity, serving as an important precursor to future increases in inventions and patents citing university research.

Institutional Support for Innovation

SRHU has established an Intellectual Property Rights (IPR) cell and provides institutional support, workshops, and incentive programs to encourage the faculty, staff, and students to pursue patentable research. This intellectual-property ecosystem is the foundation for translating university-based research into commercial-ready assets, thereby strengthening the technological base for industrial development.

Brief on IP Policy:

The university has an Intellectual property policy in place to promote innovation and patents, know-how, brands, designs, and other creative and innovative products at the university. The IP Policy seeks to guide academic and non-academic staff, students, scholars, and outside agencies on the practices and the terms of the University regarding Intellectual Property Rights (IPR) and obligations, which include the nature of intellectual property (IP), its ownership, exploitation, technology-transfer, commercialisation and confidentiality requirements.

The policy is designed to fulfil the commitment of the University to promote academic freedom and provide a conducive environment for innovative research and development. The policy also highlights the process of filing the patent, trademark, copyright and the support system provided to the faculty and students for such initiatives. The university encourages its faculty and researchers to file patents on their creative work resulting from research, innovation, and teaching in any discipline at SRHU.

Such IP includes, for instance, the

(i) process to synthesise a new material,
(ii) new design of a product or service,
(iii) an algorithm, software, or an "app" to achieve a certain computational, communication, or control function, as also
(iv) teaching and learning resources, and

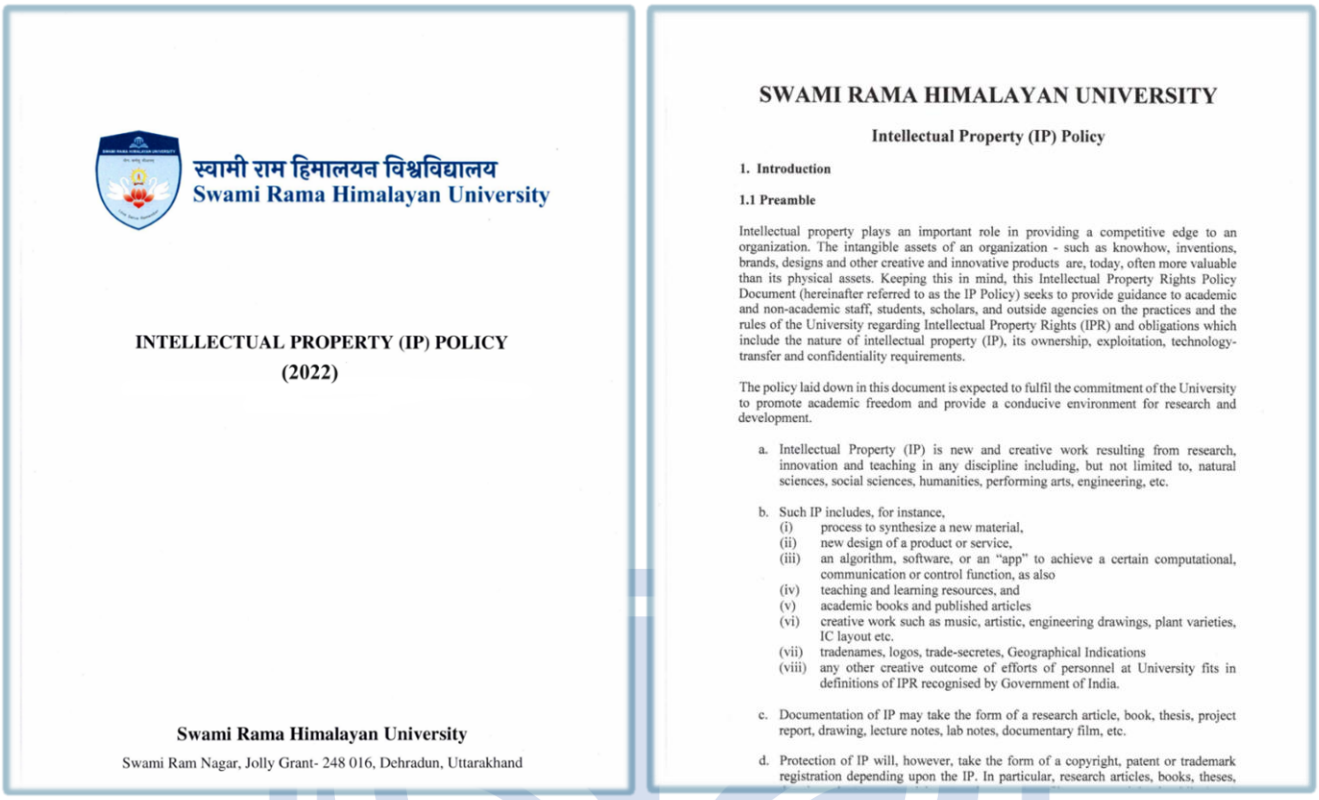
(v) academic books and published articles

(vi) creative work such as music, artistic, engineering drawings, plant varieties, IC layout, etc.

(vii) trademarks, logos, trade secrets, Geographical Indications

(viii) any other creative outcome of the efforts of personnel at the University that fits in definitions of IPR recognised by the Government of India.

The policy also highlights the methodology and classifications of various types of intellectual properties, the differentiation of copyright, patent, or trademark, etc. The SRHU expects its faculty and students to spend a significant fraction of their time engaged in research and innovation while disseminating research outcomes in the form of publications of journal articles, books, or conference presentations. It is expected that in the time to come, significant IP will be generated by the University's faculty and students. Therefore, the University emphasises protecting rights to all such IP and commercialising those IP for financial success, and to become one of the leading universities in innovation and research in the country. So far, more than 100 patents have been published, and 9 have been granted to the university. For more information, please visit SRHU IP Policy



स्वामी राम हिमालयन विश्वविद्यालय
Swami Rama Himalayan University

INTELLECTUAL PROPERTY (IP) POLICY
(2022)

Swami Rama Himalayan University
Swami Ram Nagar, Jolly Grant- 248 016, Dehradun, Uttarakhand

SWAMI RAMA HIMALAYAN UNIVERSITY

Intellectual Property (IP) Policy

1. Introduction

1.1 Preamble

Intellectual property plays an important role in providing a competitive edge to an organization. The intangible assets of an organization - such as knowhow, inventions, brands, designs and other creative and innovative products are, today, often more valuable than its physical assets. Keeping this in mind, this Intellectual Property Rights Policy Document (hereinafter referred to as the IP Policy) seeks to provide guidance to academic and non-academic staff, students, scholars, and outside agencies on the practices and the rules of the University regarding Intellectual Property Rights (IPR) and obligations which include the nature of intellectual property (IP), its ownership, exploitation, technology-transfer and confidentiality requirements.

The policy laid down in this document is expected to fulfil the commitment of the University to promote academic freedom and provide a conducive environment for research and development.

a. Intellectual Property (IP) is new and creative work resulting from research, innovation and teaching in any discipline including, but not limited to, natural sciences, social sciences, humanities, performing arts, engineering, etc.

b. Such IP includes, for instance,
(i) process to synthesize a new material,
(ii) new design of a product or service,
(iii) an algorithm, software, or an "app" to achieve a certain computational, communication or control function, as also
(iv) teaching and learning resources, and
(v) academic books and published articles
(vi) creative work such as music, artistic, engineering drawings, plant varieties, IC layout etc.
(vii) tradenames, logos, trade-secretes, Geographical Indications
(viii) any other creative outcome of efforts of personnel at University fits in definitions of IPR recognised by Government of India.

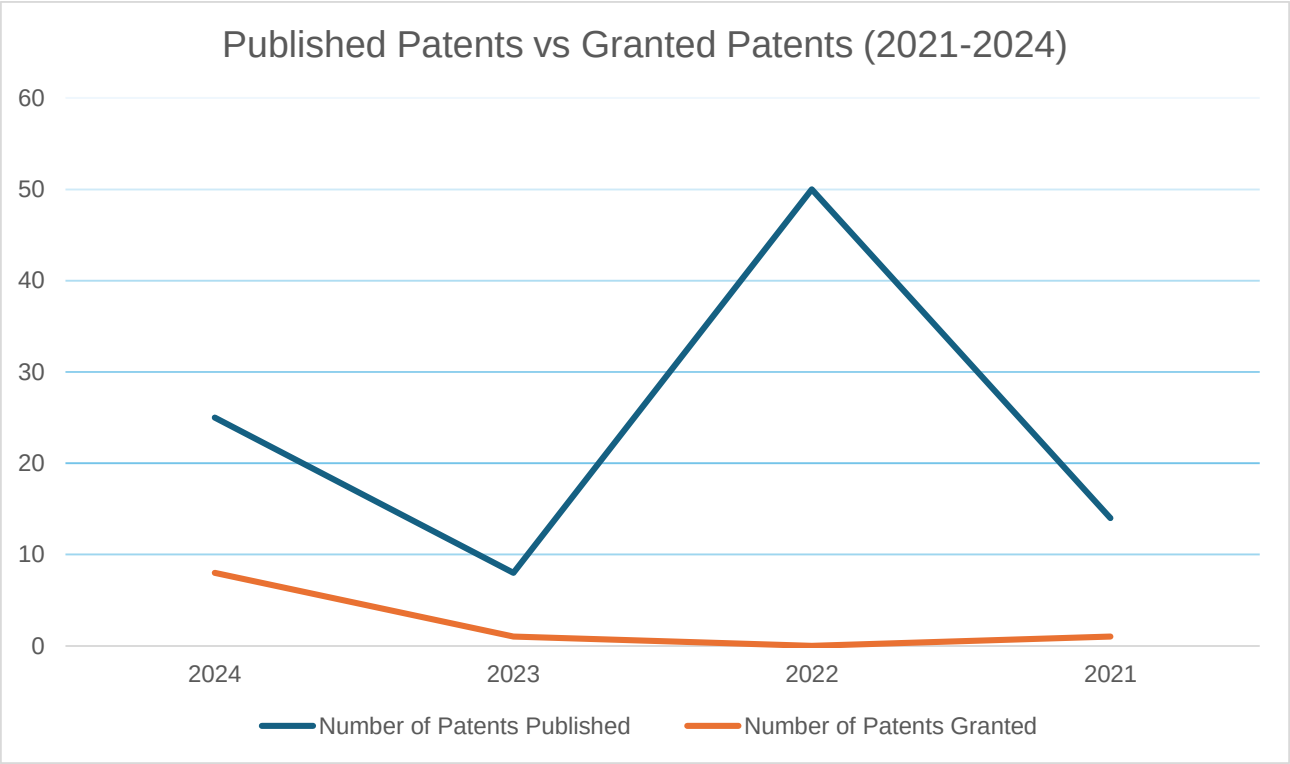
c. Documentation of IP may take the form of a research article, book, thesis, project report, drawing, lecture notes, lab notes, documentary film, etc.

d. Protection of IP will, however, take the form of a copyright, patent or trademark registration depending upon the IP. In particular, research articles, books, theses,

Intellectual IP Policy

9.2.1 Numbers of Patents Citing University Research

Number of Patents Granted vs Patents Published				
S. No.	**Mention Year**	**Number of Patents Published**	**Number of Patents Granted**	**Granted Patent Number**
1	2024	25	8	503748, 537066, 527601, 500051, 526958, 545090, 550068, 550448,
2	2023	8	1	445273
3	2022	50	0	0
4	2021	14	1	2021102049

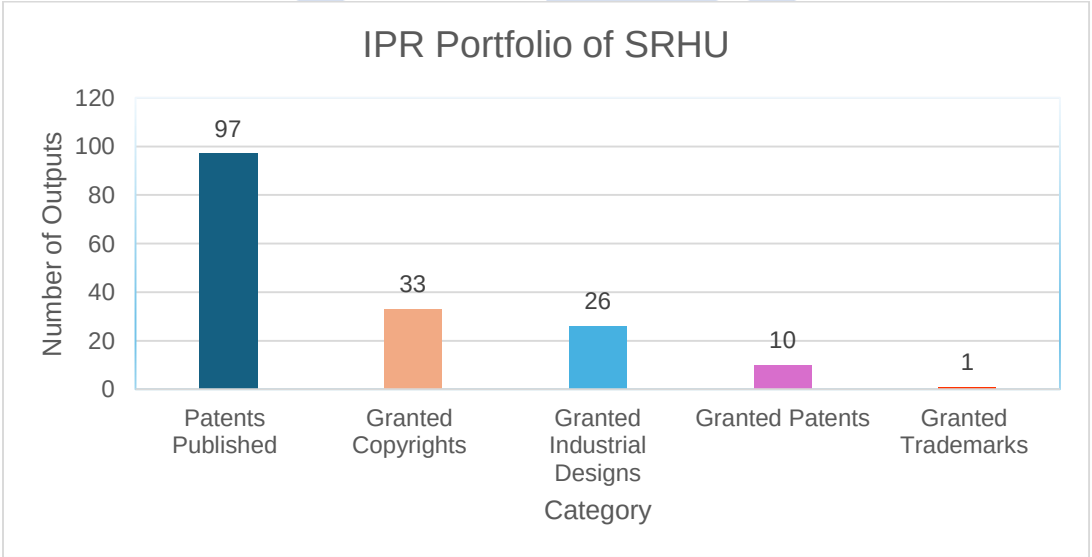


Patents Published vs Patents Granted (2021-2024)

The most striking positive feature is the high level of research activity. The 50 Patents Published in 2022 is a remarkable achievement, demonstrating a peak year for scientific inquiry and technological ideation. Even in the other years, we see consistent research output with 25 published and 8 granted patents in 2024 and 14 published in 2021, showing that innovation isn't a one-off event but a continuous organizational focus. This dedication shows a strong commitment to advancing technological capabilities.

The data showcases a thriving innovation pipeline, moving from high publication output to successful patent grants, which is the engine driving progress toward robust industrialization and technological advancement. For more information, please visit SRHU IP Portfolio

Glimpse of IPR portfolio at SRHU at a glance



Intellectual Property Portfolio of SRHU

The 96 Published Patents demonstrate a thriving innovation ecosystem and a significant contribution to global knowledge creation. The successful granting of various IPRs, including Patents, Copyrights, and Designs, further establishes a foundation for inclusive, technology-driven industrial development.

The future plan is to leverage the **97 Published Patents** by moving them from disclosure to commercialization, primarily through **spin-off ventures**. This involves using the existing **Himalayan Centre for Innovation and Entrepreneurship (HCIE)** to incubate ideas, provide seed funding, and offer mentorship to faculty/students. The key strategy is to license the protected IP (patents, designs, and copyrights) to these new companies, often taking an **equity stake** rather than just a royalty, ensuring the University retains a long-term stake in the economic success and societal impact of its research.

List of Granted Patents					
S.No.	**Name of Inventor**	**Title of Invention**	**Official Status**	**Patent Granted on Date**	**Patent Granted Number**
1	Dr. Kunal Das, Dr. Nitika Agrawal	Stylet Retaining Lumbar Puncture Needle	GRANTED	25-01-2024	503748
2	Dr. Vijendra Chauhan Dr. Chandra Shekhar Nautiyal,	Bone Cement Injecting Device With Air And Body Fluids Removal Mechanism	GRANTED	11-09-2024	550068
3	Mr. Rahul Aswal	Multi-Purpose Collapsible Shed	GRANTED	18-09-2024	550448
4	Mr. Prashant Raturi	Nursing Brassiere For Feeding Fluids To A Breastfeed Addicted Child	GRANTED	07-05-2024	537066
5	Mr. Prashant Raturi Mr.Rahul Aswal	Grain Grinding Machine	GRANTED	15-03-2024	527601
6	Mr. Brij Bhooshan Gupta **Ms. Anupama Mishra** Mr. Deepak Gupta Perakovi	Method And System For Defense Against Distributed Denial-Of-Service Attack	GRANTED	26-05-2021	2021102049
7	Mr. Sandeep Kumar	Chainless Bicycle	GRANTED	16-01-2024	500051
8	Mr. Prashant Raturi	Strapless facemask	GRANTED	15-03-2024	526958
9	Dr. Vivek Kumar, Mr. Sandeep Kumar, Dr. C.S. Nautiyal	An apparatus for spreading microbial culture on a petri dish	GRANTED	16-08-2023	445273
10	Dr. Vivek Kumar, Mr. Sandeep Kumar, Dr. C.S. Nautiyal	Petri dish for growing microorganisms with a variable lockable mechanism	GRANTED	16-07-2024	545090

List of Published Patents						
S. No.	**Title of Invention**	**Description**	**Name(s) of the inventor**	**Association of the inventor(s) with the applicant organization**	**Status: applied/ granted**	**Patent application number/Patent number**
1	Method And System For Defense Against Distributed Denial-Of-Service Attack	The Cloud technology is a dynamic platform and it provides a collection of configurable and sharable resources to the consumers and suppliers	Mr. Brij Bhooshan Gupta Ms. Anupama Mishra Mr. Deepak Gupta Perakovi	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	Australian Innovation Patent No. 2021102049
2	Cervical Range of Movement Instrument	A Cervical Rotational Movement Instrument (CRI), for determination of movements of a neck region of a user, comprises a dome-shaped frame adapted to receive a head portion of the user, wherein the dome-shaped frame includes a first curved member parallel to a sagittal plane, a second curved member parallel to a coronal plane and normal to the first curved member, and a third curved member parallel to a transverse plane and normal to the first and the second curved members.	Dr. Kunal Das, Dr. Nitika Agrawal, Dr. Vipul Nautiyal	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202011051239

3	A Drug Discovery System With Immuno-Oncology Protein For Cancer Treatment Using Artificial Intelligence	The input data values are based on a computational method associated 10 in the drug discovery and development process and related to the biological data	Mr. Dilip Kumar J Saini, Mr. Deepak Srivastava Mr. Devendra Prasad, Mr. Neeraj Rathore, Mr. Ajay Kumar, Mr. Dheresh Soni, Mr. Ranjeet Singh, Dr. Pramod Kumar, Dr. Anuj Kumar Singh	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202111039110
4	Patient Shifting Pallet	The patient shifting pallet includes a rectangular plastic board configured to fit the patient along the longer side of the rectangular plastic board, the rectangular plastic board having a curve profile such that the curve is between the longer sides of the rectangular plastic board, wherein the longer sides of the rectangular board are tapered along the edges to facilitate in shifting the patient to the rectangular plastic board, and wherein the curve of the rectangular plastic board facilitates in keeping the patient in position such that the patient	Mr. Prashant Raturi, Mr.Rahul Aswal	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202111047802

5	Integrated Intelligent Rainwater Harvesting And Storage System Based On IOT For Converting It To Purified Water	Present invention is to solve the abnormalities presented in the prior art techniques related intelligent rain harvesting systems with purifying and supply unit	Suman, Shruti Saurabh , Kumar; Bahadur Saini, Dilip Kumar Jang; Aggarwal ,Nikhil; Shrivastava, Amit; Rakesh, Shanu Kuttan; Sonekar, Shrikant V.; Haridas, Sanjay Laxmikant; Subramanyam, M Madhusudhana and Vaishnav, Satish R.	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	Australian Patent with Application Number 2021105390
6	Vertex Perimetry Device	The vertex perimetry device is a camera mounted mechanical device for measuring circumferential movement of vertex, the highest point of the head	Dr. Kunal Das Dr.Nitika Agrawal, Mr. Shubham Agrawal, Ms.Vedika Agrawal, Dr.Vipul Nautiyal, Dr. Manish Raturi, Dr.Anshika Arora	Professor, Himalayan School of Medical Sciences, Swami Rama Himalayan University	Published	202111006746

7	Antimicrobial Sanitizng Formulation	An antimicrobial sanitizing formulation, comprising, isopropyl alcohol in the range of 0.1%- 80% w/w, an emollient in the range of 0.1%-15% w/w, hydrogen peroxide in the range of 0.1 0.13% w/w, citric acid in the range of 0.1% to 2.0% w/w, silver nitrate in the range of 0.1% to 0.5% w/w, and a fragrance imparting agent in the range of 0.1% to 2.0% w/w.	Dr. Garima Mittal Dr. Rajendra Singh, Dr. Naresh Khanduri, Dr. Chandra Shekhar Nautiyal	Professor, Himalayan School of Bio Sciences, Swami Rama Himlayan University, Scientific Advisor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202111059956
8	Model for Effective Cross Selling for Financial products	Profitable method of business growth across a range of industries and countries.	Dr. Ajay Poddar, Dr. Shobhna Poddar, Dr. Som Aditya Juyal,Dr. Amit Nautiyal,Dr. Ashulekha Gupta,Dr. Sanjay Gupta	Assistant Professor, Himalayan School of Management Studies, Swami Rama Himalayan University	Published	202211006153
9	Intelligent secure private key sharing framework for advanced communication using asymmetric cryptography and blockchain	In the event of a vital key exchange, one party generates the secret key and encrypts it with the receiver's public key. The receiver would then use their private key to decode it.	Dr. Ashulekha Gupta Dr. Anu Sayal, Dr. Sanjeev Kumar, Dr. Amit Nautiyal, Dr. Som Aditya Juyal, Dr. Sanjay Gupta,	Assistant Professor, Himalayan School of Management Studies, Swami Rama Himalayan University	Published	202211008311

10	Smart System for Detection of Black Fungus and White Fungus Disease Using Artificial Intelligence, Internet of Things Sensors and Deep Learning	Smart system for detection of black fungus and white fungus disease using artificial intelligence, internet of things sensors and deep learning.	Pattanayak,Mr. Dilip Kumar J Saini Binod Kumar,Sing, Awanish Kumar, Anand,Ketan, Bhardwaj,Aksha y, Bahadur Saini, Soniker Shrikant, V, Baig, Mirza Moiz, Sawwashere, Supriya Sureshrao, Lanjewar, Ashutosh Omprakash, Zunke, Sonali Abhay, Manjunath, T.C. G, Pavithra	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	Australian Patent with Application Number 2021104507
11	A system & method for maintaining Conditions of Mental Health in the Working Environment with the help of Human Resource Management		Dr. K Selvasundaram, Ms. Ekta Rao, Dr. Subrato Kumar Dey,Dr. M K Kathiravan, Dr. T. Milton, Iskandar Muda, Valentino Joebert Barbosa, Dr. Geetha Manoharan, Sunitha Purushottam, Rakesh Ahlawat	Assistant Professor, Himalayan School of Management Studies, Swami Rama Himalayan University	Published	202241032910
12	Wearable Mindfulness Enhancing Device For Relieving Stress Induced Anxiety	Wearable system which utilizes the power of conscious mind to heal itself from the various psychosomatic pathologies	Dr. Neeraj Gupta	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202011056809

13	Peritoneal dialysis training simulator for neonates	Peritoneal dialysis training simulator for neonates comprising an upper part (inside of the upper lid) acts as a display area, and lower part; wherein the upper part provides static information about Peritoneal dialysis method	Dr. Girish Gupta, Dr. Garima Goyal	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211056500
14	Treatment Process of HPV infection and mutation of p53 gene in esophageal squamous cell carcinoma	Treatment Process of HPV infection and mutation of p53 gene in esophageal squamous cell carcinoma	Dr. Tanmay Singh, Dr. Saurabh Bansla, , Dr. Sunil Saini, , Dr. Mushtaq Ahmad,Dr. Meenu Gupta, Dr. Nadia Shirazi	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211056510
15	Process for prevalence of pain, anxiety, and depression in admitted cancer patients	A total of 393 patients were enrolled in the study and included in the analysis	Dr. Anshika Arora, Dr. Sunil Saini, Dr. Vipul Nautiyal,Dr. S.K. Verma, Dr. Meenu Gupta, Dr. B.P.Kalra,Dr. Mushtaq Ahmad	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211056511
16	Prediction process for acute kidney injury in patients with decompensated cirrhosis	Patients were studied for acute kidney injury as per International Club of Ascites-acute kidney injury criteria	Dr. Manjot S. Arora, Dr. Reshma Kaushik, Dr. Shahbaj Ahmad, Dr. Rajeev Mohan Kaushik	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211056514
17	Scoring method for predictors of 3-month mortality among end-stage liver disease patients	The C-statistics of these scores differed significantly for 3-month mortality, and the CTP score was better than the MELD and MELDNa scores in predicting 3 month mortality	Dr. Gagandeep Acharya, Dr. Rajeev Mohan Kaushik, Dr. Rohit Gupta, Dr. Reshma Kaushik	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211056512

18	Rare Etiology of Drug Rash in a Patient Receiving AntiTuberculosis Treatment	Anti tuberculosis medications can cause various side effects including rash	Dr. Rakhee Sodhi Khanduri, Dr. Varuna Jethani, Dr. Rashmi Jindal, Dr. Nadia Shirazi	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063281
19	Study on the Knowledge and Practice regarding Prevention of Postpartum Complications among Post Natal Mothers	On the basis of knowledge and practice of post delivered women, need based teaching provided regarding prevention of postpartum problems	Dr. Laxmi Kumar, Dr. Kanchan Bala, Dr. Himani Bora	Professor, Himalayan College of Nursing, Swami Rama Himalayan University	Published	202211063501
20	Quality of Life and Psychological Well-Being among Elderly Living in Old Age Homes and Living with their Families in Selected Areas	Tt was found that score was 45.32±6.385 and 66.87±5.86 which was found to be statistically significant	Dr. Grace M. Singh, Dr. J. ManoRanjini, Dr. Priyanka Thakur	Associate Professor, Himalayan College of Nursing, Swami Rama Himalayan University	Published	202211063546
21	Comparison of Immediate Postoperative Complications in Using Left Internal Mammary Artery Vein Versus Only Vein	There was no statistically significant difference in complication rate between the two groups.	Dr. Deepak Oberoi, Dr. Vinit Mehrotra, Dr. Tarun Chaudhary	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063510
22	Factors Affecting Awareness of Mental Health among Adults of Selected Area	Majority of the factors responsible for mental illness is superstitious belief, history of mental illness, peer group	Dr. Grace M. Singh, Rajkumari Sylvia, Dr. Rahul Singh	Associate Professor, Himalayan College of Nursing, Swami Rama Himalayan University	Published	202211063503
23	Systematic Review of Cutaneous Manifestations of Coronavirus Disease	The majority of reported cases were located in Spain, Italy, and France. These manifestations do not seem to be sex-, age-, or country specific	Dr. Rashmi Jindal, Dr. Payal Chauhan	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063514

24	Prevalence and Etiological Factor of Hearing Impairment among School Going Children in Rural Area	The prevalence of hearing impairment in school going children in rural area district Dehradun is high. Majority of the etiological factor of hearing impairment identified are preventable	Dr. S.S.Bist, Dr. Lovneesh Kumar,Dr. Saurabh Saini	Propfessor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063560
25	Community-Based Study on Barriers to Utilization of Antenatal Care Services by Currently Married Women	Overall 496 (77.9%) women availed one or more ANC services during their last pregnancy, but the complete package is availed by only 210 (33%) of the CMW	Dr. Ruchi Juyal, Dr. Jayanti Semwal, Dr. Ashok Kumar Srivastava,Dr. Deep Shikha,Dr.Vidisha Vallabh, Dr. Sunil Dutt Kandpal	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063577
26	Neonatal Skin Care Process	Validity of the NSCS could be demonstrated by confirmation of the relationship of the skin condition scores with birth weight, number of observations, and prevalence of infection	Dr. Dipti Y Sorte	Associate Professor, Himalayan College of Nursing, Swami Rama Himalayan University	Published	202211063249
27	Morphometric analysis of proximal end of the tibia	Anatomical profile of tibial condyle for Indians is smaller, hence highlighting the need for sizing of prosthesis specific to the population in question	Dr. Deepa Singh, Dr. Aksh Dubey,Dr. SL Jethani,Dr. Nadia Ahmad	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063250
28	Diagnostic Rescue of Silent Scalp Swelling by Fine-Needle Aspiration	The present case which is clinically suspected to be an abscess or adnexal tumor scalp turned out to be metastatic RCC on FNAC	Dr. Smita Chandra, Dr. Anuradha Kusum, Dr. Vipul Nautiyal, Dr. Manveer Kour Raina, Dr. Sushil Kumar Shukla	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063252

29	Study to Assess Health-Related Quality of Life (HRQOL) among Cardiac Patients	The findings of the study concluded that the HRQOL of cardiac disease patients is affected	Dr. Harleen Kaur, Dr. Priya JPN, Dr. Vinay Kumar	Assistant Professor, Himalayan College of Nursing, Swami Rama Himalayan University	Published	202211063292
30	Role of Frozen Section of a Sentinel Lymph Node in Patients withEarly Breast Cancer for the Management of the Axilla in India	The overall accuracy of FS of SLNB in early carcinoma breast is found to be 92.73%	Dr. Anshika Arora, Dr. Sunil Saini, Dr. Nishish Vishwakarma, Dr. Tanvi Luthra	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063285
31	Effectiveness of home based toilet training on knowledge and practice of mothers	Based on the findings of the study it was concluded that home-based toilet training was effective in improving the knowledge of mothers	Dr. Sanjenbam Emon Chanu, Dr.Vandana Chauhan, Dr. Rashmi Joshi	Assistant Professor, Himalayan College of Nursing, Swami Rama Himalayan University	Published	202211063322
32	Anaesthetic management Method in guillain-barré syndrome undergoing total hip replacement	Patient is comfortable post operatively and the analgesia lasted for around 8 hours without the need of an opiod	Dr. Veena Asthana, Dr. Rohan Bhatia, Dr. Medha Bhardwaj	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063245
33	Method of finding patterns of microorganisms of urinary tract infection and its outcomes in diabetic patients	Septic shock occurred in 18 (25%), re-infection in 7 (10%) and death in 4 (5.7%) patients.	Dr. Nand Kishore, Dr. Sushant Khanduri, Dr. Barnali	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063244
34	Uncommon Etiology of Chronic Wheeze	The patient improved clinically on antitubercular therapy	Dr. Varuna Jethani, Dr. Rakhee Sodhi Khanduri,Dr. Ankit Aggarwal, Dr. Suchita Pant	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063266

35	Acute effect of slow abdominal breathing on heart ratevariability in pre-hypertensive	Amarked decrease in mean SBP & DBP (P =0.001) in addition to significant decrease in mean sympathetic activity (L.F.) & increase inparasympathetic activity	Dr.Yogesh Saxena, Dr.Nimish Jindal	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063263
36	Study of Awareness and Adherence in Patients Receiving Anti- Hypertensive Drugs	68% of people had a history of complications includingstroke and renal abnormality seen in the maximum number of patients(46%) followed by retinopathy.	Dr.Taruna Sharma,Dr. Sohaib Ahmad, Dr. Suman Bala, Dr. Juhi Kalra, Dr.Aalia Tausif	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211063259
37	Care of skin in Neonate Neonatal skin care guidelines	Immediately following birth colonization with microbial organisms also begins. These organisms grow in a state of equilibrium providing protection against invading pathogenic organisms.	Dr. Dipti Y Sorte	Associate Professor, Himalayan College of Nursing, Swami Rama Himalayan University	Published	202211064822
38	Evaluation process for ADC Values in Probably Benign and Suspicious Malignant Breast Lesions	The basic modalities for the detection of the breast lesions are X ray mammography, sonomammography and the breast MRI	Dr. Manju Saini, Dr. M. Goel, Dr. A. Kusum, Dr. S. Raghuvanshi, Dr. Asmita Chugh	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211065635
39	Diagnosis method for VAP based on clinical and microbiological criteria	The diagnosis of VAP is based on clinical and microbiological criteria. The invention used CDC criteria to diagnose VAP : Ventilated for more than 48 h.	Dr. Garima Mittal, Dr. Rajender Singh, Dr. Manish Mittal, Dr. Barnali Kakati,Dr. Shagufta Jahoor, Dr. Madhuri Tripathi	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211065849

40	Method for finding prevalence of psychological distress among cancer patients	The psychological distress increased with the increasing age of the patients and this difference is found to be statistically significant.	Dr. Ruchi Juyal, Dr. Deep Shikha, Dr. Sunil Saini, Dr. Jayanti Semwal, Dr. Amita Mason, Dr. Sai Chandan Das	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211065648
41	Case control method for Diabetes mellitus as a risk factor for ischemic stroke	Among cases there were equal no of subjects in the age group of 40-60 and 60-80 year (43.4% in both) whereas among controls maximum respondents were in the age group of 40-60 years	Dr. Jayanti Semwal, Dr. Deep Shikha, Dr. Yashpal Singh, Dr. Sudip Bhattacharya, Dr. Sumit Kumar Singh	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211065664
42	Triple Phase Multidetector ComputedTomography of Hepatic Masses with Cytopathological Correlation	On histopathology, 50 (90.91%) are identified as malignant lesions while 5 (9.09%) cases are diagnosed as benign lesions	Dr. Mamta Goyal, Dr. DN Awasthy, Dr. Shailendra Raghuvanshi, Dr. Sakshi Tomar	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211065866
43	Study to Assess Knowledge, Attitude, and Practices Toward Road Traffic Safety Regulations Among Students	RTAs can be minimized by strict enforcement of regulations by the road traffic police and through frequent road traffic awareness. But the self responsibility by the drivers should also be there to bring about a drastic change in minimizing RTAs	Dr. Neha Sharma, Dr. Shaili Vyas, Dr. Jayanti Semwal, Dr. Swati Sharma	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211065871
44	Corneal transplants surgical method	The primary indication of TPK is infectitious keratitis	Dr. Renu Dhasmana, Dr. Amit, Dr. Harsh Badahur	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211067648

45	Method of tarsorrhaphy and amniotic membrane transplantation in the healing of persistent corneal epithelial defects	The invention provides a pain score index, wherein pain perceived is recorded on a scale from grade	Dr. Harsh Bahadur	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211067654
46	Traumatic Optic Neuropathy in Head Injury	It is observed in our study that there is a significant statistical association of ocular trauma with the severity of head injury (p=0.04).	Dr. Renu Dhasmana, Dr. Ranjit Kumar,	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211067659
47	Cross-Sectional Study on Oral Health Knowledge and Beliefs Assessment in Adult Population	A total of 600 individuals, 200 each from three healthcare centres are enrolled	Dr. Abhishek Kandwal, Dr. Sanjeeva Kumar,Dr.Nidhi Kundra	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211067667
48	Cross-Sectional Observational Study on Clinico-Aetiological Profile of Patients with Vertigo	The mean age of patients in this study is 49.75 years with amale to female ratio of 1:1	Dr. Sampan Singh Bist, Dr. Lovneesh Kumar, Dr. Vinish Kumar Agarwal, Dr. Himanshu Kumar Mittal, Dr. Shiraz Syed,	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211067675
49	Oxygen scavenging petri dish and composition for growing anaerobic microorganisms	Status of the anaerobic conditions within the sealed petri dish inoculated with microorganisms is demonstrated by an oxygen indicator pink color of resazurin dye to colorless, due to the change in color.	Dr. Vivek Kumar, Dr. Vijay Kumar, Dr. Renu Chaudhary, Mr. Sandeep Kumar,Dr. C.S. Nautiyal	Professor, Himalayan School of Bio Sciences, Swami Rama Himlayan University, Scientific Advisor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202211069422

50	Process to calculate the Tc-99m pertechnetate thyroid uptake using Thyroid Uptake Probe	The invention provide a fast process for measurement of Tc thyroid uptake using thyroid uptake probe with added advantages of low radiation dose, easy availability and low cost of Tc-99m	Nisha Bhatia	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211071329
51	Test tube rack for enhancing aerobic microbial growth, biomass, and metabolites	The slots are given on both the plates, which are die cavities, to hold the test tubes during motion. The design of the test tube holder consists of a clamping mechanism using a nut and screw	Dr. Vivek Kumar, Ms. Renu Chaudhary Mr. Sandeep Kumar,Dr. C.S. Nautiyal	Professor, Himalayan School of Bio Sciences, Swami Rama Himlayan University, Scientific Advisor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202311025075
52	Intraluminal Dosimetry Slab Phantom	The phantom is the replica of the structures located in the thoracic cavity of the patient body	Mr. Ravi Kant, Dr. Meenu Gupta, Dr. Satish Uniyal, Dr. Vipul Nautiyal, Dr. Jyoti Bisht, Mr. Rishabh Dobhal, Dr. Sunil Saini, Dr. Mushtaq Ahamad	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202311025908

53	An abdominal collapsible multi-position retractor device with a variable adjustable lockable mechanism	The abdominal collapsible multi-position retractor device with a variable adjustable lockable mechanism that provides ease of connectivity with commonly used retractors due to the plurality of adaptability joints which secure the interchangeable parts together and offer the ability to move in several directions as per the surgery requirement to be performed.	Dr. Sunil Saini, Dr. Anshika Arora, Dr. Sourabh Nandi, Dr. Chandra Shekhar Nautiyal	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202311030701
54	Apparatus For Real-Time Videotaping And Still Image Capturing For Fish Behavioral Patterns	Frame and are connected with the help of separators and these separators provide a gap between frame and so that frame and camera holder may rotate freely on their respective pathways.	Dr. Vishal Rajput, Dr. Sanjay Gupta,Dr. Chandra Shekhar Nautiyal	Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202311035397
55	Roof Top Rain Water Harvester	The harvester not only save cost of production, storage, treatment and transportation of community water supply but the harvester will also save withdrawal of drinking water from surface / underground water source	Er. H.P. Uniyal	Advisor, Rural Development Institute, Swami Rama Himalayan University	Published	202311053398

56	Intravaginal Slab Phantom With Air-Pockets	Air cavities of different volume are introduced around the central vaginal applicator at different locations to simulate the treatment condition of intra vaginal patient	Dr. Jyoti Bisht, Dr. Satish Uniyal, Dr. Sunil Saini, Dr.Mushtaq Ahmed,Dr. Vipul Nautiyal, Mr. Ravi Kant,Dr. Meenu Gupta	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202311057667
57	Bone Fixation Device	The plurality of the length of the nail is achieved by controlling a bolt which in turn inserts or retreats a screw-threaded bar passing through the hollow sheath within the medullary cavity, wherein the actuating shaft extends axially through the sleeve with a reduced diameter portion.	Dr. Chandra Shekhar Nautiyal, Dr. Vijendra Devisingh Chauhan	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Scientific Advisor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202311059944
58	A urinal prototype for cancer screening by quantitation of native nucleic acids in urine using UV spectroscopy	These urinals can be easily deployed at the community level and the health benefits can reach the general masses.	Dr. Neeraj Gupta	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202211026749
59	Radioprotection handcart for radiographic examinations in neonatal intensive care unit (NICU)".	The top and bottom sides of the handcart are made open to allow the X-ray beam to expose the collimated part of the newborn	Dr. Satish Chandra Uniyal,Mr. Vikram Singh	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202311081305
60	Adjustable Footrest for Squatting Posture on Toilets	The adjustable footrest apparatus offers a simple yet effective solution to align the body properly during toileting, mimicking	Dr. Chandra Shekhar Nautiyal, Dr. Vijendra Devisingh	Professor, Himalayan Institute of Medical Sciences, Swami Rama	Published	202411008825

		the biomechanics of squatting and potentially reducing the risk of gastrointestinal issues associated with improper defecation posture	Chauhan, Mr. Sandeep Kumar	Himalayan University, Scientific Advisor, Himalayan School of Bio Sciences, Swami Rama Himalayan University		
61	Glass Test Tube for Growing Microbial Culture with a Filter Cap	The procedure is useful for growing the microbial culture on a microbiological growth medium in a test tube with a filtered cap, which allows the exchange of gases/vapors while maintaining aseptic conditions	Charu Sharma, Vivek Kumar, Vishal Rajput, C.S. Nautiyal	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Scientific Advisor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202411036602
62	Petri Dish for Actively Growing Aerobic Microorganisms with a Ventilated Lid	The filter is 0.4 µm PTFE membrane (Polytetrafluoroethylene). Both the bottom plate and filtered lid are assembled using a single-start thread locking mechanism.	Anupam Dhasmana, Charu Sharma, Vivek Kumar, Vijay Kumar, Vishal Rajput, C.S. Nautiyal	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Scientific Advisor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202411038331

63	A System for Injecting Treated Rain Water Directly to the Aquifers	The rain water after filtration enters the hand pump body through these holes and straight away travels about 50-80 meter depth and filled in the aquifer within few minutes without any loss due to seepage or evaporation	ER. H.P. Uniyal	Advisor, Rural Development Institute, Swami Rama Himalayan University	Published	202311008945
64	Exteroceptive Stockings for neurological Stimulation in Lower limb	Present invention will provide continuous sensory input at regular interval for increasing better chance to develop tone	Dr. Manish Kumar Jha, Dr. Amit Sharma, Vishal Rajput	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411057184
65	Blink-Based Home Access System for Disabled Individuals	The system will authenticate the user's eyes using convolutional neural networks (CNNs) and utilize Mobile Net implemented on an edge device attached to spectacles for blink detection	Dr. Shachi Mall, Dr. Deepak Srivastava, Dr. S. Premkumar, Dr. Vibhor Sharma, Dr. Pramod Kumar	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University, Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411057187
66	Tilted Visual Feedback by Convex Mirror to Improve Outcomes in Lateropulsivepusher Syndrome	The mirror standing frame provides mirror stability for easy use	Nikita Vaid, Dr. Manish Kumar Jha	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411057192

67	Mechanoceptive Gloves for Vibratrory Stimulation in Upper Limb	Present invention will provide continuous vibratory stimulus at regular interval in upper limb which may be helpful in developing appreciable tone	Dr. Manish Kumar Jha, Dr. Amit Sharma, Vishal Rajput	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411060764
68	Intracavitary Brachytherapy Applicator Immobilization Device	To make the applicator fix a device requirement is arises therefore this device design can resolve this movement issue in the brachytherapy treatment and increase the accuracy	Dr. Ravi Kant	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411064789
69	External body fiducial marker belt	It has been observed that these three small lead balls are not appear in one single CT slice which creates some error in patient positioning for treatment. This becomes the base of the invention of the external body marker belt device	Dr. Ravi Kant	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411066348
70	Assessment Tool for Sensory Integration Therapy for Upper Limb	The present invention will have different shapes identification like circle, triangle, square, and hexagon. Present invention may provide biofeedback and may help in improving neuroplasticity	Alluri Deepthi; Charu Sharma; Amit Sharma; Manish Kumar Jha; and Bhawana Dani	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411069851
71	Wrist Exerciser	Comprehensive rehabilitation or maintenance programcan lead to improved quality of life by promotinf joint health and functionality	Arun Pathak, Charu Sharma; Amit Sharma; Manish Kumar Jha; and Bhawana Dani	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411073161

72	Biofeedback strap for knee osteoarthritis	Help patients of ACL, PCLand menicus injuries	Charu Sharma, Amit Sharma, Manish Kumar Jha, Bhawana Dani	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411073152
73	IoT based irrigation system for precision agriculture	The weather station is cucial for predecting upcoming weather events (like rain) and making informed decisions on irrigation timing	Dr. Pramod Kumar	Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411073181
74	Vehicle status detection system	The sensors include engine sensors that monitor temperature and oil levels	Princy Tyagi	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411074993
75	Polypropylene Tissue Culture Container with Slider-Enabled Labeling Lid with Integrated Schedule Indicator	This innovative labeling mechanism allows for real-time adjustments and precise documentation of experimental conditions, enhancing operational efficiency, reproducibility, and data accuracy in plant tissue culture laboratories	Vishal Rajput, Charu Sharma, Vijay Kumar, Vivek Kumar, C.S. Nautiyal	Assistant Professor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202411082080

76	Blockchain enabled cloud marketplace for agriculture	This system addresses the agricultural challenges of limited market access, lack of transparency, inefficient supply chain management, and contractual complexities, creating an integrated solution to enhance economic opportunities for farmers and improve transparency for buyers and consumers	Dr. Pramod Kumar, Dr. Anupama Mishra, Dr. Vibhor Sharma, Dr. Deepak Srivastava	Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University, Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411083221
77	Wearable breath regulation device for mental and physical well being	This solution provides a practical, non-electronic method for stress management and energy balancing, allowing users to modulate mental states in real-time without external power or manual intervention	Dr. Ankit Sharma, Dr. Somlata Jha, Dr. Shubham Nema, Ankit Semwal	Assistant Professor, Himalayan School of Yoga Sciences, Swami Rama Himalayan University	Published	202411084538
78	Intelligent Crop Security System using Decentralized Animal Detection and Deterrence	This system helps farmers protect crops while promoting coexistence with wildlife and enhancing trust in the data used for decision-making	Dr. Pramod Kumar, Dr. Vibhor Sharma, Dr. Ashutosh Bhatt, Mr. Gaurav Sharma, Mr. Gaurav Aggarwal, Dr. Anupama Mishra	Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University, Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411086985

79	AI-Enhanced Animal Recognition and Alert System for Farm Houses	This system solves that problem by watching for dangerous animals automatically and alerting farmers right away if one is detected nearby.	Dr. Pramod Kumar, Mr. Gaurav Sharma, Dr. Suman Pant, Dr. Swati Rawat	Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University, Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411088943
80	Adjustable Radiation Brassire	By providing a comfortable, patient-centric solution, the invention addresses challenges in breast movement, thoracic breathing motion, and patient flexibility, ensuring consistent target volume alignment and effective radiation delivery	Dr. Jyoti Bisht	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411089482
81	System to Control Pre-Analytical variables in platelet count estimation in hematology laboratories	The algorithm monitors conditions during sample tranport and storage, ensuring that temperature and handling standards are met to avoid platelet degradation during transit	Mansi Kala, Manish Raturi, Avriti Baveja, Monika Singh, Smita Chandra, Bhawna Adhikari	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411090343

82	Wet detection and notification device to alert the baby mother at night	By making sure that caregivers are quickly notified of wetness, it can greatly lower the risk of diaper rash, improve sleep for both mother and baby, and make changing diapers at night easier.	Dr. Suman Pant, Dr. Deepak Srivastava, Mrs. Archana Kero, Dr. Vibhor Sharma, Ms. Shefali Khatri, Mrs. Shivani Pant	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411095510
83	Adjustable Seat for Enhanced Accessibility and Safety in Residential and Healthcare Settings	This self-lifting toilet seat enables users with reduced risk of falls and thus provides more self-reliance.	Dr. Vijendra Chauhan, Mr. Sandeep Kumar, Dr. Vivek Kumar, Dr. Chandra Shekhar Nautiyal,	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University, Scientific Advisor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202411095473
84	Needle Enabled with Nano-Coated Stellate Assembly	Needle enabled with Nano-coated stellate assembly is a multipored FNAC needle with nanocore stellate and a sheath allowing variable multicores to open and to get multiple FNAC samples from different depth of tissue, thus improving the yield	Dr. Kunal Das, Dr. Nitika Agarwal	Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411099971

85	Integrated Disease Diagnosis and Organic Solution Sprayer	One unique feature of this invention is that the Unmanned Vehicle can prepare and mix natural treatments, like plant-based sprays or bio-fertilizers, while it is flying. It then sprays the solution directly on the affected plants, ensuring only the sick areas are treated. This not only saves time and effort but also reduces waste and avoids unnecessary spraying of healthy plants.	Dr. Pramod Kumar, Dr. Ashutosh Bhatt, Dr. Anupama Mishra, Ms. Khushbu Kausar	Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University, Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411100940
86	Vibrator strap for chest physiotherapy	A chest vibrator relatively big and almost same for every patient. It removes secretions from various lobes.	Dr. Manish Kumar Jha, Dr. Deepak Goel, Dr. Ashwini Bhatt	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202411103162
87	Smart Adherence and Real time patient monitoring system	The present invention provides a smart adherence and real-time patient monitoring system that notifies patients about their scheduled medication or meal times using intelligent reminders tailored to their habits and routines. It emits audible and visual reminders via a buzzer and LED lights.	Shubham Gangri, Dr. Deepak Srivastava, Dr. Vibhor Sharma, Dr. Pramod Kumar	Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University, Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411104006

88	Smart monitoring and alert system for infusion bottle management	The present invention provides a smart monitoring and alert system for infusion bottle management that is designed specifically for hospitals to enhance patient care and safety. The system focuses on tracking the liquid level in glucose drip bottles in real time.	Shubham Gangri, Dr. Vinhor Sharma, Dr. Deepak Srivastava, Dr. Pramod Kumar	Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University, Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202411103967
89	Crystalline salt composition for enhanced Jal Neti experience	Composition is carefully formulated to match the optimum Ph suitable for human physiology so it will be helpful to avoid irritation or any other discomfort caused by osmotic imbalance	Dr. Ankit Sharma, Dr. Shubham Nema, Dr. Manmohan Gupta, Dr. Ujjawal Nautiyal, Mr. Abhishek Chandola, Mr. Suraj Gauniyal	Assistant Professor, Himalayan School of Yoga Sciences, Swami Rama Himalayan University	Published	202511003084
90	Bladder assistance for radiotherapy	Bladder assistance for radiotherapy [BART]. The device includes a urinary bladder catheter having a proximal inflatable bulb, wherein the bulb is configured to expand to a predetermined volume upon fluid introduction through a distal end; a press valve at the distal end for enabling controlled fluid introduction and removal without leakage; and drainage ports located at a base of the inflatable bulb,	Dr. Kunal Das, Dr. Nitika Agarwal, Vinay Kumar, Sonu Tomar	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202511005226

		the ports converging into a single drainage channel extending to the distal end; and a drainage system connected to the distal end for urine collection.				
91	Smart Mining Helmet	Mining is one of the most dangerous jobs in the world, where workers face risks like toxic gases, dust, falling objects, and lack of oxygen. The present invention provides a smart mining helmet that is designed to protect miners by detecting dangers and providing real-time alerts. The helmet is equipped with special sensors that monitor the environment and the miner's condition. It can detect harmful gases, dust levels, and lack of oxygen.	Devansh Kotiyal, Princy Tyagi, Dr. Vibhor Sharma, Nidhi Sharma	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202511009722
92	Smart bandage with integrated biosensors and drug delivery system	Smart bandage with integrated biosensors and drug delivery system. The bandage includes an outermost layer as a breathable, waterproof membrane that guards the wound from external contaminants while allowing for ideal gas exchange.	Hridayesh Srivastava, Dr. Suman Pant, Sneha Saxena, Vaibhav Uniyal	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Published	202511011591

93	Eco-friendly anti-termite sparay using *Cascabela thevetia*, alcohol and acetone	Eco-friendly cleaner for chalkboards and whiteboards. The invention is a liquid cleaning solution specially formulated for cleaning both traditional chalkboards and modern whiteboards. The solution is composed of 10% acetic acid and 20% acetone in an aqueous base.	Rahul Pandey, Dr. Ganesh Kumar, Dr. Ujjawal Nautiyal, Abhishek Chandola, Kritika Baduni, Deepali	Assistant Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Published	202511028485
94	Process for producing High yield, volume depleted single donor apheresis platelet (SDAP) product for neonates	Process for producing a high-yield, volume-depleted single donor apheresis platelet (SDAP) product for neonates. The process includes steps of collecting platelets from a single donor using a continuous cell separator with a customized configuration program.	Yashaswi Dhiman, Saikat Patra, Manish Raturi, Chinmay Chetan, Dushyant Singh Gaur	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Published	202511028482
95	Petri dish from recycled plastic	The invention enhances the design and functionality of various laboratory tools, including test tubes and flasks, improving accuracy and ease of use through the use of recycled plastics sourced from medical or food-grade materials. The invention signifies a broader paradigm shift aimed at reducing single-use plastic waste in academic institutions, research facilities,	Dr. Vivek Kumar, Dr. Vishal Rajput, Dr. C.S. Nautiyal	Assistant Professor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202511028477

		industrial laboratories, and diagnostics.				
96	Incubator with solar power and hybrid thermal energy management	The incubator includes a Primary Renewable Energy Source (1) for converting sunlight into electricity to power the system; an Energy Transmission System (2) for seamless transmission of electricity to various components with minimal energy loss; a Thermal Energy Storage Unit (3) for storing excess thermal energy to ensure continuous operation during low sunlight conditions; and a Dynamic Airflow Control System (5) for regulating airflow, temperature, and humidity within the incubator.	Dr. Vishal Rajput, Charu Sharma, Dr. Vijay Kumar, Dr. Vivek Kumar, Dr. C.S. Nautiyal	Assistant Professor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Published	202511028468
97	Smart Mushroom Cultivation System	Smart Mushroom Cultivation System	Mr. Yogesh Pant	Himalayan School of Science and Technology	Published	202011048066

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1	Hospital Antibiograms: Need of the Hour and Tool for Bringing Antibiotic Stewardship	A periodic summary of antimicrobial susceptibilities of local bacterial isolates	Dr. Garima Mittal, Mr Rajesh Kumar	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-99070/2021
2	Hospital Antibiograms: A Necessity	The percentage susceptibility of the most frequently isolated bacteria presented in a tabular form.	Dr. Garima Mittal, Mr Rajesh Kumar	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-99071/2021
3	A Study to Assess the Body Image Perception of YoungAdults and its Impact on their Lifestyle Choices	Aconsiderable proportion of the young adults face dissatisfaction with the image of their own body and desire for a better one, although in our study the degree of dissatisfaction in majority was mild	Dr. Dipak Kumar Dhar, Dr. Brijesh Purwar	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-102334/2021
4	First Responder Module	Initial method of cure	Dr. V D Semwal, Dr. Rajeev Bijalwan, Mr. Sunil Khanduri, Mr. Vikesh Semwal	Professor, Rural Development Institute, Swami Rama Himalayan University	Granted	L-107580/2021
5	Pani Ki Kahani	Water and sanitation	Mr. Vishnu Sharan, Mr.Nitesh Kaushik, Dr. Rajeev Bijalwan, Mr.Raj Kumar Verma, Mr.Naresh Thapliyal	Professor, Rural Development Institute, Swami Rama Himalayan University	Granted	L-104207/2021

6	Novel Approach of Predicting Blood level of Hemoglobin for anemia using Artificial Intelligence	Appropriate quantitative metrics will be used on to evaluate the relationship between the bilirubin estimates from the images and the Total Serum Bilirubin levels	Dr. Nikku Yadav Dr. Yogesh Saxena, Dr. Mansi Kala, Mr. Dilip Kumar Jang Bahadur Saini, Dr. Anita Sharma	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-114919/2022
7	Antibiotic audit tool: simple and effective	By judicious use of antibiotics, we can reduce the evolution of antibiotic resistance in bacteria and extend the useful life of antibiotics that are still effective	Dr. Garima Mittal	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-134916/2023
8	"GirAsh" - Neonatal Needle Cricothyrotomy Simulator	Portable simulator	Dr. Girish Gupta, Dr. Astha Panghal	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-122293/2023
9	"GiriSohi" - Suprapubic needle aspiration (SPNA) trainer	Self sealing portable simulator	Dr.Girish Gupta, Dr.Sohini Ghosh,Dr. Saikat Patra,	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-122526/2023
10	"GirIndu" - An ambient light dimmer, for creating developmentally supportive night milieu for the neonates being cared under radiant warmers & baby cradles in low middle income countries,	Need based dimming of ambient light	Dr. Girish Gupta,Ms. Indu Negi, Dr. Saikat Patra	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-122527/2023

11	"GirSohi" - a bubble mattress for neonates undergoing undersurface phototherapy for Neonatal Jaundice	A mattress which will provide a firm but comfortable surface	Dr.Girish Gupta,Dr.Sohini Ghosh,Dr. Saikat Patra	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-124379/2023
12	"HimGiriNaaz - An innovative, neonatal transporter unit for short duration transport"	An innovative unit available at an affordable cost and helps in maintenance of thermal neutrality and provides comprehensive basic NICU care on wheels, which includes- stabilization, monitoring and essential emergency care during the short duration transport of of upto 2-3 hours	Dr Aisha Naaz,Dr Girish Gupta	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-134790/2023
13	"HimGiriTal" is an Innovative tool for measuring forehead pulse oximetry using peripherally placed transmittance pulse sensor in newborns in low middle income countries	Different size headbands were designed for term and preterm babies by using Velcro on outer side for fixation and stretchable velvet on inner side	Dr Talha Rehman,Dr Girish Gupta	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-125238/2023
14	"GiriSuraj" An Innovative Solar flux based Home Phototherapy Unit for Management of Neonatal Jaundice in low middle income countries.	principal of utilization of solar flux for the effective & safe management of jaundice in newborns , utilizing easily available &procurable, economic material under direct supervision of mother or other family caregivers at home	Dr Suraj Kumar Singh,Dr Girish Gupta	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-127131/2023

15	प्राथमिक स्वास्थ्य कर्मियों के लिए ड्रग व्यसन तथा ड्रग दुरुपयोग पर स्वास्थ्य पुस्तिका	Drug offender revival book	Dr Jayanti Semwal, Dr Ashok K Srivastava,Dr Deep Shikha, Dr Vidisha Vallabh,Dr Rajiv Bijalwan,Ms Akanksha Uniyal	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-130845/2023
16	Visual Auditory Kinesthetic Tactile technique and Dyslexia	Multiple sensation teaching is giving positive outcome for students with dyslexia	J.ManoRanjini,	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L130984/2023
17	First Aid and Support Training Manual for Drivers and Conductors	Book on first aid and support	Dr. Rajeev Bijalwan, Dr. Rakesh Kakkar,Dr. Pradeep Aggarwal, Dr Anurag Bhargava, Dr. Anil Juyal, Dr. D. C Vidyarthi, Mr. Sunil Khanduri, Mr. Vikesh Semwal,	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-131173/2023
18	"GirYaPoorv"- the Thoracostomy trainer simulator model	A balloon is inflated under the frame of the box to simulate the parietal pleura and pneumothorax	Dr. Poorva Sharma, Dr. Girish Gupta, Dr. Yasir Ahmad Lone	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-132302/2023
19	"GiriSurya" An innovative gastric tube and ancillaries Holder for neonates being cared inside incubator.	An innovative device,is made by using wall adhesive hooks in a way that feeding tubes and other ancillary tubing can be placed easily at level higher to stomach of baby	Dr Suraj Kumar Singh,Dr Girish Gupta	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-136693/2023

20	Substance Use Training Module for Stakeholders, Teachers and Parents;	Book for training	Dr Jayanti Semwal, Dr Ashok K Srivastava,Dr Deep Shikha, Dr Vidisha Vallabh,Dr Rajiv Bijalwan,Ms Akanksha Uniyal	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-135335/2023
21	"GirDeep" - a Gastric Tube Holder, for neonates being cared under radiant warmers & baby cradles, in low middle income countries	Addresses nursing care challenges	Dr. Girish Gupta, Mr. Deepak Sharma,Dr. Chinmay Chetan	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-135936/2023
22	"GiriBLS"- A Life savior Basic Life Support Ready Reference Pocket Purse sized Card	Pocket purse of an individual	Dr. Girish Gupta	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-136964/2023
23	"GiriHari - Resuscitator" T-piece resuscitator for use in healthcare services during neonatal short transportation in low middle income countries,	Deliver low as well as high pressure ventilation	Dr. Girish Gupta, Dr. Harit Prasad	Associate Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-140005/2023

25	To determine the immediate and carryover effects on SI joint pain by neural reboot-Primal reflex release technique (PRRT) on SI joint mobility, Hamstring and calf flexibility in desk job workers	Technique of physiotherapy	Rakesh Chaudhary, Dr. Manish Kumar Jha	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-157184/2024
27	Analyzing immediate effect of primal reflex release technique on mechanical neck pain patient	Technique of physiotherapy	Aditya Sharma, Dr. Manish Kumar Jha	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-152916/2024
28	Comparing the immediate effect of half somersault and Epley's Maneuver on Posterior canal Benign paroxysmal Positional Vertigo (Pc-Bppv)	Technique of physiotherapy	Anamika, Dr. Manish Kumar Jha	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-152370/2024
29	A study to evaluate the immediate effect of femoral nerve neurodynamic and stretching with strengthening exercise in patients with anterior thigh pain	Technique of physiotherapy	Deepali Chandra, Dr. Manish Kumar Jha	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-152369/2024
30	Study the immediate effects of Primal Reflex release technique versus neural tissue mobilization on Hip flexor tightness in individuals with a sedentary lifestyle	Technique of physiotherapy	Muskan Jain, Dr. Manish Kumar Jha, Avinash Ruhela	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-153489/2024

32	Analysing immediate and carryover effects of primal relex release technique on iliotibial band tightness in knee pain patients	Technique of physiotherapy	Sanjoli Arya, Dr. Amit Sharma, Dr. Manish Kumar	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-157027/2024
33	Effectiveness of proprioceptive neuromuscular facilitation on strength and active range of motion of tibials anterior nerve-Induced weakness	Technique of physiotherapy	Hardika Jain, Dr. Manish Kumar Jha	Assistant Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	L-153639/2024

List of Granted Trademarks

S. No.	Title of Trademark or other similar	Description	Name(s) of the inventor (s)	Association of the Inventor(s) with the applicant organization	Status: applied/ granted	Trademark application number/Trade mark number	Date
1	Hamari Koshish	Symbol	Dr. Jayanti Semwal, Dr Vidisha Vallabh	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	5939635	12-05-2024

List of Granted Industrial Designs

S. No.	Title of Industrial design	Name(s) of the inventor(s)	Association of the Inventor(s) with the applicant organization	Whether Industrial Design applied/ granted	Industrial Design application number/Industrial Design number
1	Cervical Range of Movement Instrument	Dr. Kunal Das	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	335087-001

2	Transformer Bed	Mr. Kapil Lakhwara, Dr. Abhishek Sharma	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Granted	336532-001
3	Vertex Perimetery Device	Dr. Kunal Das	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	337175-001
4	Breast Feeding Chair with Alarm System	Dr. Sanchita Pugazhendi	Professor, Himalayan College of Nursing, Swami Rama Himalayan University	Granted	345016-001
5	Hybrid water cum sanitizer bottle	Mr. Prashant Raturi	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Granted	345015-001
6	Double Handle Can	Mr. Sandeep Kumar	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Granted	354999-001
7	Dustless Chalk Case	Mr. Prashant Raturi	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Granted	354998-001
8	Water bottle with digital wallet	Dr. Amit Joshi, Dr. Geeta Rana, Ms.Sapna Bist, Ms. Kajal Mahawar	Assistant Professor, Himalayan School of Management Studies, Swami Rama Himalayan University	Granted	358285-001
9	Customer Emotions and Feedback Detecting Device	Dr. Ravindra Mersing Ghoti Dr. Purushottam M. Borkar , Ar. Namita Singh ,Phan Minh Duc, Dr. Vijay D Kulkarni, Hoa Thi Hong Phuong , Dr. Shubhanker Yadav, Dr. Shalini Singh , Dr. Geeta Rana , Dr. Neelam Rani, Dr. Priyanka	Assistant Professor, Himalayan School of Management Studies, Swami Rama Himalayan University	Granted	366761-001
10	Vesical Cystotomy Mannequin	Dr. Girish Gupta Dr. Sohini Ghosh Dr. Saikat Patra	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	380329-001

11	Bone fixation and repair device	Dr. Vijendra Devisingh Chauhan, Dr. Chandra Shekhar Nautiyal	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	399923-001
12	Forehead pulse oximeter headband	Dr Talha Rehman, Dr Girish Gupta	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	395325-001
13	Toilet footrest	Dr. Vijendra Devisingh Chauhan, Dr. Chandra Shekhar Nautiyal	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	399924-001
14	Radioprotection handcart for radiographic examinations in neonatal intensive care unit (NICU)".	Dr. Satish Chandra Uniyal,Mr. Vikram Singh	Professor, Himalayan Institute of Medical Sciences, Swami Rama Himalayan University	Granted	401035-001
15	Glass test tube for growing microbial culture with a filter cap	Charu Sharma, Vivek Kumar, Vishal Rajput, C.S. Nautiyal	Professor, Himalayan School of Bio Sciences, Swami Rama Himalayan University	Granted	415658-001
16	Patient Shifting Pallet	Rahul Aswal, Prashant Raturi	Assistant Professor, Himalayan School of Science and Technology, Swami Rama Himalayan University	Granted	416530-001
17	Tablet Coating Pan with Visible Lid and Spray System	Dr. Ganesh Kumar, Dr. Ujjawal Nautiyal, Dr. Arvind Singh Farswan, Mr. Rahul Pandey, Mr. Abhishek Chandola	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	418121-001
18	Clarity test apparatus with sample holder	Mr. Abhishek Chandola, Dr. Ganesh Kumar, Dr. Ujjawal Nautiyal, Dr. Arvind Singh Farswan, Mr. Rahul Pandey	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	419860-001
19	Sonicator with multiple chambers	Dr. Ujjawal Nautiyal, Dr. Ganesh Kumar, Dr. Arvind Singh Farswan, Mr. Rahul Pandey, Mr. Abhishek Chandola	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	419863-001

20	Mechanical Stirrer with sample injector	Dr. Arvind Singh Farswan, Dr. Ganesh Kumar, Dr. Ujjawal Nautiyal, Mr. Rahul Pandey, Mr. Abhishek Chandola	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	420290-001
21	Actophotometer with camera for pharmacology laboratory	Dr. Arvind Singh Farswan, Dr. Ganesh Kumar, Dr. Ujjawal Nautiyal, Mr. Rahul Pandey, Mr. Abhishek Chandola	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	420292-001
22	Flame photometer with attached platinum thermometer and digital light intensity	Mr. Rahul Pandey, Dr. Ganesh Kumar, Dr. Ujjawal Nautiyal, Dr. Arvind Singh Farswan, Mr. Abhishek Chandola	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	420301-001
23	Hydraulic tincture press	Dr. Ganesh Kumar, Dr. Ujjawal Nautiyal, Dr. Arvind Singh Farswan, Mr. Rahul Pandey, Mr. Abhishek Chandola	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	420757-001
24	Caps or lid for lenses of Refractometer and polarimeter	Mr. Rahul Pandey, Dr. Ganesh Kumar, Dr. Ujjawal Nautiyal, Dr. Arvind Singh Farswan, Mr. Abhishek Chandola	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	420758-001
25	Flame photometer with Detachable cylinder and attached pumps	Mr. Rahul Pandey, Dr. Ganesh Kumar, Dr. Ujjawal Nautiyal, Dr. Arvind Singh Farswan, Mr. Abhishek Chandola	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	420781-001
26	Magnetic Stirrer with Water or Oil bath	Dr. Ujjawal Nautiyal, Dr. Ganesh Kumar, Dr. Arvind Singh Farswan, Mr. Rahul Pandey, Mr. Abhishek Chandola	Professor, Himalayan School of Pharmaceutical Sciences, Swami Rama Himalayan University	Granted	420932-001

9.3 University Spin Offs

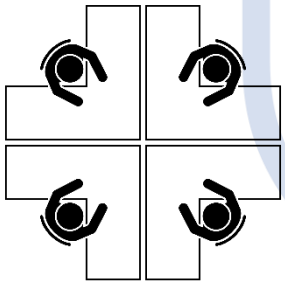
Swami Rama Himalayan University (SRHU) actively supports the translation of academic research into commercial ventures through its incubation arm, the Himalayan Centre for Innovation and Entrepreneurship (HCIE). These university spin-offs and incubated companies represent a crucial step in diversifying the regional economy, promoting inclusive entrepreneurship, and increasing the share of technology-based industry in line with national development goals.

The HCIE provides a robust ecosystem that offers infrastructure, mentorship, technology commercialization support (including IPR assistance through IPR cell of the university), and connection to seed funding. The focus areas of these spin-offs are highly diversified, reflecting the multidisciplinary nature of the university:

These ventures illustrate SRHU's commitment to:

1. **Bridging Research and Market:** Ensuring that faculty and student research moves out of the lab and into scalable products and services.
2. **Fostering Entrepreneurship:** Utilizing the HCIE to cultivate an entrepreneurial culture among students and faculty, allowing them to take up roles as founders and promoters.
3. **Regional Economic Growth:** Targeting innovations in health, agriculture, and local resource utilization (like Himalayan salt and water technology) that directly benefit the Uttarakhand region and promote inclusive economic activities.

Facilities offered at HCIE

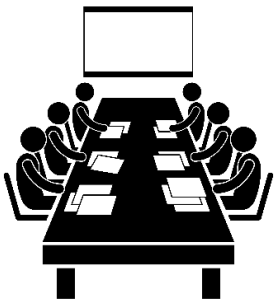


COWORKING SPACE

The coworking space at HCIE offers a vibrant and collaborative environment designed to support startups & entrepreneurs. Equipped with high-speed internet, meeting rooms, and essential office amenities, it provides a flexible workspace solution for professionals at every stage. Members benefit from networking opportunities, mentorship sessions, and access to HCIE's ecosystem of innovation, which fosters community engagement and growth. The space is ideal for individuals and small teams looking to work in an inspiring setting that encourages creativity and productivity.

MAKERS SPACE

The Maker's Space at HCIE will be a state-of-the-art facility designed to foster innovation, creativity, and hands-on learning. It is a work in progress; once established, it will work as a research platform where student entrepreneurs can turn their ideas into working prototypes. Guided by skilled mentors, the Maker's Space at HCIE aims to empower innovators to create and develop solutions that drive progress and inspire the entrepreneurial spirit.

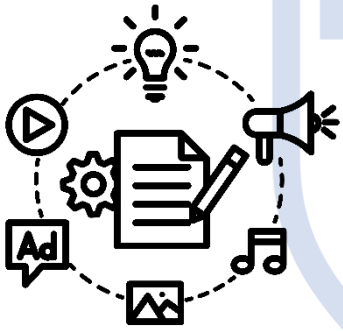


CONFERENCE ROOM

The conference room at HCIE is designed to support dynamic, collaborative, and productive meetings. It is equipped with modern amenities, including high-speed Wi-Fi, a large display screen for presentations, video conferencing capabilities, and comfortable seating arrangements. The room is spacious, allowing flexibility in seating and arrangement to suit various events, from small team meetings to larger workshops.

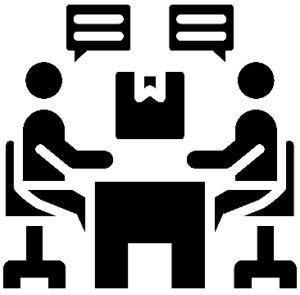
MENTORSHIP

Mentorship at HCIE focuses on providing students, startups, and entrepreneurs with personalised guidance to accelerate their growth. Through one-on-one sessions, group workshops, and networking opportunities, mentors help mentees refine their business ideas, develop strategic roadmaps, and overcome specific challenges in innovation and entrepreneurship. The program is designed to connect mentees with experienced mentors who bring practical insights, fostering a supportive ecosystem that empowers individuals to transform their ideas into impactful ventures.



MARKETING

The Marketing Facility at HCIE is designed to support budding entrepreneurs and startups in effectively building and promoting their brands. It offers resources and guidance on digital marketing, market research, branding strategies, and content creation. The facility provides access to tools and mentorship for developing marketing plans, targeting audiences, and enhancing engagement across digital and offline channels, helping innovators at HCIE amplify their reach and impact in competitive markets



IDEATION LOUNGE

The Ideation Lounge at HCIE is a state-of-the-art space designed for brainstorming ideas, fostering innovation, learning, and collaboration. The lounge offers an interactive open space, high-speed internet, and breakout areas for discussions. It provides a conducive environment for hands-on workshops, seminars, and boot camps tailored to various skill levels in startups.

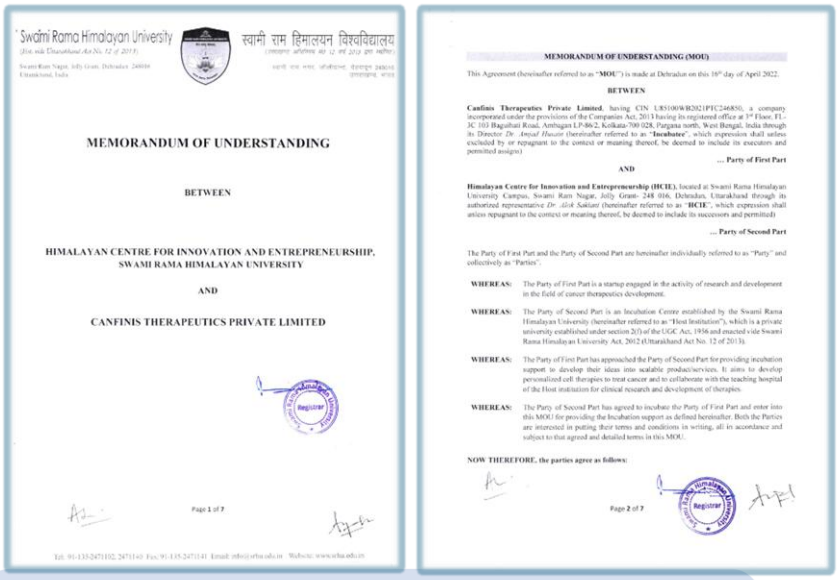
Facilities Available at Himalayan Centre for Innovation and Entrepreneurship (HCIE)

9.3.1 Number of University Spin Offs

SDG9: Industry, Innovation and Infrastructure			
Type	**Metric and indicator reference**	**Metric / Indicator**	**Value (for continuous data)**
Indicator	9.3.1	University Spin Offs	
		Number of university spin-offs	3

Canfinis Therapeutics Pvt Ltd is an oncology cell therapy company, pioneering in deep tech cancer treatment innovations. The venture was established in 2021 to develop advanced cancer treatments using customized cell therapies. The company aims to develop CAR-T therapy for the treatment of solid tumours. Additionally, Canfinis is also building a novel ex vivo Tumour Microenvironment (TME) platform to assess the efficacy of new drug molecules and standard-of-care (SOC) therapies. Canfinis collaborates with premier institutions and industries in India and internationally, and have global experts from Harvard, Brown, CNCI Kolkata, CRI Dehradun as clinical / scientific advisors and founders. For more information, please visit www.canfinis.com

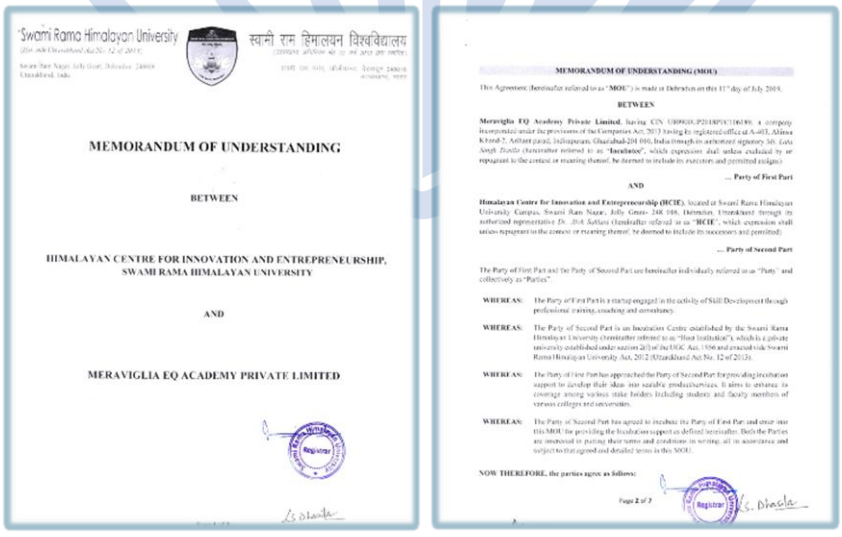
[Evidence 1: Incorporation Certificate - Canfinis Therapeutics]


Swami Rama Himalayan University
स्वामी राम हिमालयन विश्वविद्यालय
MEMORANDUM OF UNDERSTANDING
BETWEEN
HIMALAYAN CENTRE FOR INNOVATION AND ENTREPRENEURSHIP, SWAMI RAMA HIMALAYAN UNIVERSITY
AND
CANFINIS THERAPEUTICS PRIVATE LIMITED
Page 1 of 7
MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN
Canfinis Therapeutics Private Limited
... Party of First Part
AND
Himalayan Centre for Innovation and Entrepreneurship (HCIE)
... Party of Second Part
WHEREAS:
NOW THEREFORE, the parties agree as follows:
Page 2 of 7

[Evidence 2: MoU - HCIE & Canfinis Therapeutics]

MEQ Academy Pvt Ltd, incubated at HCIE, is an educational startup dedicated to enhancing students' learning outcomes through skill-based training and mentorship. The academy focuses on bridging the gap between academic knowledge and practical industry requirements. For more information, please visit www.meqacademy.com

[Evidence 1: Incorporation Certificate - MEQ Academy]


Swami Rama Himalayan University
स्वामी राम हिमालयन विश्वविद्यालय
MEMORANDUM OF UNDERSTANDING
BETWEEN
HIMALAYAN CENTRE FOR INNOVATION AND ENTREPRENEURSHIP, SWAMI RAMA HIMALAYAN UNIVERSITY
AND
MERAVIGLIA EQ ACADEMY PRIVATE LIMITED
MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN
Himalayan Centre for Innovation and Entrepreneurship (HCIE)
... Party of First Part
AND
... Party of Second Part
WHEREAS:
NOW THEREFORE, the parties agree as follows:

[Evidence 2: MoU - HCIE & MEQ Academy Pvt Ltd]

Himfla Pvt Ltd, incubated at HCIE, is dedicated to producing natural and sustainable Himalayan salt products. The company aims to promote local resources and traditional practices to uplift the economic conditions of women in the Himalayan region. For more information, please visit www.himfla.com

[Evidence 1: Incorporation Certificate - Himfla Pvt Ltd]

Swami Rama Himalayan University

स्वामी राम हिमालयन विश्वविद्यालय

MEMORANDUM OF UNDERSTANDING

BETWEEN

HIMALAYAN CENTRE FOR INNOVATION AND ENTREPRENEURSHIP, SWAMI RAMA HIMALAYAN UNIVERSITY

AND

HIMFLA PRIVATE LIMITED

MEMORANDUM OF UNDERSTANDING (MOU)

BETWEEN

AND

WHEREAS:

WHEREAS:

WHEREAS:

WHEREAS:

NOW THEREFORE, the parties agree as follows:

[Evidence 2: MoU - HCIE & Himfla Pvt Ltd]

Mindura Yogwell is a wellness and yoga pre-startup venture, incubated at HCIE, dedicated to promoting holistic health through traditional yoga practices. It offers professionally guided yoga, wellness, and mindfulness programs for students, faculty, staff, and the broader SRHU community. By integrating ancient wisdom with modern needs, Mindura Yogwell supports physical, mental, and emotional well-being. The initiative aligns with SRHU's mission of holistic development and aims to create a healthier, more mindful campus environment. Through accessible and impactful programs, it encourages individuals to embrace sustainable wellness practices in their daily lives.

Capacity Building Activities

The Himalayan Centre for Innovation and Entrepreneurship (HCIE) at Swami Rama Himalayan University (SRHU) is instrumental in building the capacities of students, faculty, and aspiring entrepreneurs to foster technological innovation and sustainable industrial development. The Centre focuses on empowering individuals to translate academic ideas and research findings into viable enterprises that strengthen regional and national industrial capacity.

Key Capacity-Building Pillars

The following initiatives demonstrate HCIE's commitment to providing comprehensive support for enterprise development and technological advancement:

Initiative Category	Focus & Objectives	Impact on Innovation Ecosystem
Entrepreneurship Awareness and Bootcamp Sessions	Organizes thematic awareness and bootcamp sessions (e.g., Entrepreneurial Bootcamp and awareness sessions for Engineering Students, Yoga Students, Management Students) focused on cultivating an entrepreneurial mindset. Programs cover design thinking, problem-solving, business modelling, and market validation.	Creates a pipeline of skilled founders ready to launch high-growth, innovation-driven enterprises.
Workshops on Startup Development	Provides regular, focused training on critical business skills: idea validation, Intellectual Property Rights (IPR), formal business registration, financial literacy, and navigating government startup and funding schemes.	Enables startups to achieve regulatory compliance, secure funding, and effectively protect their intellectual property for commercial use.
Industry-Academia Collaboration	Facilitates partnerships with experienced entrepreneurs, industry veterans, and government agencies to establish robust mentorship programs. Focuses on technical guidance for product prototyping, process innovation, and securing market linkages.	Directly bridges the gap between academic discovery and industrial application, accelerating technology transfer and commercialization.
Skill Development and Digital Training at Skill Centre and HCIE	Conducts training programs in emerging technologies, digital tools, and innovation methodologies, enhancing the technical and entrepreneurial readiness of students, particularly from engineering and biosciences faculties.	Ensures the local workforce possesses the advanced digital and technical skills required for modernization and Industry 4.0 adoption.
Inclusive Innovation and Rural Enterprise through RDI	Actively supports community-based and rural entrepreneurship, prioritizing artisans and women-led ventures. Offers tailored mentorship and incubation to promote inclusive industrialization and sustainable development in the region.	Contributes to economic diversification and ensures that the benefits of innovation reach underserved and rural areas.

Research and IP Awareness through IP and Research Cell	Regularly organizes seminars on research translation, the patent filing process, and technology transfer protocols.	Empowers innovators to strategically protect their inventions and effectively commercialize university-linked intellectual property.

Activities at HCIE towards Capacity Building for Innovation, Entrepreneurship, and Research:

Capacity Building Activities at HCIE towards Innovation and Entrepreneurship		
Activity	**Partcipating Unit**	**Date**
Entrepreneurial Awareness Session	School of Science & Technology	10-10-2023
	School of Management Sciences	
Entrepreneurial Awareness Session	School of Biosciences	20-10-2023
Entrepreneurial Awareness Session	Himalayan College of Nursing	01-02-2024
Entrepreneurial Awareness Session	School of Yoga Sciences	07-02-2024
World IP Awareness Day	University Event	26-04-2024
Fish Tank Competition (Entrepreneurial Capacity Building Exercise)	Inter University Competition	17-05-2024
Entrepreneurial Art Work	School of Biosciences	21-05-2024

Photographs of the Activities by Incubation Facility

Awareness Session - School of Science & Technology

Awareness Session - School of Biosciences

Awareness Session – Himalayan School of Yoga Sciences

Fish Tank Competition

Awareness Session - School of Yoga Sciences

Entrepreneurial Art Work Competition – School of Biosciences

World IP Awareness Day Celebration

Entrepreneurial Art Work Competition – School of Biosciences

Fish Tank Competition

Details of Infrastructure for Innovation & Entrepreneurship

The Centre for Innovation and Entrepreneurship at SRHU offers an excellent environment for fostering innovation and turning ideas into successful businesses. Situated on the third floor of the Skill Building at SRHU, the centre covers over 10,000 Sqft of space, including 4840 Sqft of furnished area, with a large coworking space. The open architecture is designed to promote creativity through interaction, providing flexible spaces tailored to the needs of various startups. The facility is fitted with modern infrastructure, including high-speed internet, office furniture, with seating arrangements for 25 people. The centre has its dedicated conference room for workshops, seminars, and networking events. Its ideation lounge is designed to encourage interaction, team-building activities, and knowledge-sharing among different teams, fostering innovation through collaboration, with a seating capacity for 50 people.

S. No.	Description	Space proposed (Sqft)
1.	Incubation Space	3000
2.	Conference Room	500
3.	Meeting Rooms	350
4.	Cafeteria	500
5.	Makerspace	500
Total		4850

9.4 Research Income from Industry and Commerce

Fostering Applied and Translational Research

SRHU's research framework is deeply committed to applied and translational outcomes. Faculty and students are specifically encouraged to engage in problem-solving projects that target pressing industrial, environmental, medical and societal challenges. This focus ensures that academic effort directly translates into practical solutions that enhance industrial efficiency and sustainability.

Strengthening the Industry-Research Bridge

The university significantly strengthens the connection between academic expertise and real-world application by engaging in industry-sponsored research projects, providing consultancy services, and leading technology development initiatives.

These strategic partnerships are highly productive, generating substantial research income from commercial sources. This vital funding is immediately reinvested to:

- Enhance research infrastructure capabilities.
- Support innovation-led projects at the cutting edge.
- Build capacity for advanced scientific exploration across disciplines.

Commitment to Sustainable Growth

By successfully integrating its academic strengths with direct industry needs, SRHU ensures that its research outcomes lead directly to the adoption of sustainable technologies and the improvement of industrial processes. This collaborative, application-focused model reinforces the university's role as a key driver for regional economic development through responsible and advanced innovation.

9.4.1 Research Income from Industry and Commerce per Academic Staff

SDG9: Industry, Innovation and Infrastructure			
Type	**Metric and indicator reference**	**Metric / Indicator**	**Value (INR) (for continuous data)**
Metric	**9.4**	**Research income from industry and commerce**	
Indicator	9.4.1	Research income from industry and commerce per academic staff	4,34,266.95
		Research income from industry and commerce by subject area: STEM	51,12,287
		Research income from industry and commerce by subject area: Medicine	12,25,62,195
		Research income from industry and commerce by subject area: Arts & Humanities / Social sciences	NA
		Number of academic staff by subject area: STEM	108
		Number of academic staff by subject area: Medicine	183
		Number of academic staff by subject area: Arts & Humanities / Social sciences	3

Details of the Income received from Industry or Commerce by Academic Staff:

Details of Project Income							
S. No	**Name of Faculty (Principal Investigator)**	**Name of the Funding agency**	**Title of the Project**	**Sanctioned order no.**	**Sanctioned Date**	**Total Amount Sanctioned (INR)**	**Amount Received (2023-24) INR**
1	Dr Geeta Bhandari	Department of Health Research, GOI	"Modern Biology: Advanced Molecular Tools for Healthcare: A Comprehensive Training Module"	F.No.R.12016/10/2024-HR/E-Office:8292783	25-09-2024	62,00,000.00	32,87,500.00
2	Dr Nikku Yadav	Department of Health Research, GOI	"Ensuring Integrity in Healthcare: Good Clinical Practice and Medical Ethics Training"	F.No.R.12016/10/2024-HR/E-Office:8292790	25-09-2024	43,00,000.00	16,61,500.00
3	Dr Juhi Kalra	Indian Council of Medical Research (ICMR)	Implementation of Standard Treatment Workflows (STWs) for pediatrics to	STW/Nconatology/2023-NCD-1I	02-01-2024		1,53,36,008.00

			improve adherence to the guidelines in the setting of a district hospital under District Residency Program of NMC 2021				
4	Dr. Rajeev Bijalwan	Indian Council of Medical Research (ICMR)	SANKALP (Strengthening Program Implementation and Monitoring to Achieve Single-digit Neonatal Mortality)	2023-NHRP-NEONATAL MORTALITY-IR DATED 22.2.2024	22-02-2024		1,84,06,242.00
5	Dr Sanjay Gupta	Uttarakhand Council For Biotechnology (UCB)	Bioprocess Development for the Biological Removal of Iron from Subsurface Drinking Water	UBC/R&D project/2022/194	05-03-2022	16,60,000.00	4,57,710.00
6	Dr. Sanjay Gupta	Uttarakhand Council For Biotechnology (UCB)	Bioprospecting for industrial utilization of invasive weed Hyptis suaveolens(lL.) Poit	UCB/HLD/22/53	05-06-2022	19,90,000.00	5,46,516.00
7	Dr. Geeta Bhandari	Director, Uttarakhand Biotechnology Council (UBC), Haldi, Pantnagar, District- Udham Singh Nagar-263145,Uttarakhand. Phone-05944-230567, Email-dg@ucost.in, statebiotech@rediffmail.com	Bio-Prospecting of Microalgae for Biomass Production and Treatment of Hospital Wastewater	UCB/HLD/22/55	05-06-2022	9,75,000.00	5,34,161.00
8	Dr. Manish Prateek	Uttarakhand State Council For Science & Technology (R&D, UCOST)	Design and Development of Pine Needles Segregation and Collection Robat	UCS&T/R&D-19/22-23/21108	07-06-2022	9,35,000.00	7,48,000.00

9	Dr. Jayanti Semwal	Director General,Uttarakhand State Council for Science and Technology,VI GYAN DHAM, Vigyan Sadan Block,Dehradun - 248007, Uttarakhand INDIA,Tel. No.: +91-135-2976266,Email ID : dg@ucost.in	Epidemiological survey of SARC-Cov-2 Antibodies among general population and its association with ABO blood typing in foothills and middle hills of Uttarakhand.	UCS&T/R&D-12/21-22/20948	05-09-2022	13,84,000.00	93,250.00
10	Dr. Satish Uniyal	Uttarakhand State Council For Science & Technology (R&D, UCOST)	Evaluation of Radiation Doses in Cardiac Cathetrrization Laboratories of Uttarakhand and Establishment of Dose Reference Levels of Interventional Cardiology Procedures.	UCS&T/R&D-18/22-23/21107	07-06-2022	8,05,000.00	2,29,494.00
11	Dr. Yogesh Saxena	Uttarakhand State Council For Science & Technology (R&D, UCOST)	Genotype Variations and Cytokines In Spectrum of Dengue Infections	UCS&T/R&D-21/22-23/21102	07-06-2022	9,38,000.00	1,83,732.00
12	Dr. Sunil Saini	Director General, Indian Council Of Medical Research Ansari Nagar New Delhi - 110029, Telephone : 011-26588204, Fax :011-26588662, Email :secy-dg@icmr.gov.in	Hospital Based Cancer Registries-Data Management Software under NCDIR, Bengaluru	NCDIR-HBCR/11/043/20223765	20-05-2022	40,00,000.00	8,25,000.00
13	Dr. Jayanti Semwal	Indian Council of Medical Research Department of Health Research, Ministry of Health and Family Welfare, Government of India, New Delhi	ICMR Task Force Study on Epidemiology of Chronic Respiratory Illness in Select Population Groups in India(CRISPI)	5/8/4-4/CRISPI/TF/2022-NCD-II	28-11-2022		1,23,06,000.00

14	Dr. Garima Mittal	Director General,Uttarakhand State Council for Science and Technology,VI GYAN DHAM, Vigyan Sadan Block,Dehradun - 248007, Uttarakhand INDIA,Tel. No.: +91-135-2976266,Email ID : dg@ucost.in	A cross-sectional study employing survey (questionnaire) and diagnostic (microbiological) methods to find out the prevalence of Sexually Transmitted Disease (STD) and Reproductive Tract Infection (RTI) amongst sexually active group (both male and female) of Doiwala block in district Dehradun	UCS&T/R&D-17/20-21/14258	26-02-2021	6,04,000.00	5,67,888.00
15	Dr. Nikku Yadav	Director General,Uttarakhand State Council for Science and Technology,VI GYAN DHAM, Vigyan Sadan Block,Dehradun - 248007, Uttarakhand INDIA,Tel. No.: +91-135-2976266,Email ID : dg@ucost.in	Establishment of population specific reference range of thyroid hormones in iodine deficient population during pregnancy: Uttarakhand Himalaya. Concept Note	UCS&T/R&D-17/18-19/16165	31-03-2019	5,44,000.00	34,694.00
16	Dr. Sanjay Gupta	Director, Uttarakhand Biotechnology Council (UBC), Haldi, Pantnagar, District- Udham Singh Nagar-263145,Uttarakhand.Phone-05944-230567, Email-dg@ucost.in, statebiotech@rediffmail.com	Molecular and Phytochemical characterization of Rheum sp. Of Uttarakhand	UCB/R&D/Project/2019/200	29-03-2019	10,71,000.00	2,86,400.00
17	Mr. Sunil Khanduri	NewSpace India Limited Bengaluru (NSIL)	Primary Health Care for the villages of	IN-UK91523443397602V	07-12-2023	8,64,180	8,64,180.00

			Kalsi Block, Dehradun				
18	Mr. Ravindra Verma	Wipro Cares, Doddakannelli, Sarjapur Road, Bangalore	Wipro Health Care	IN-KA787787 00710347U	09-11-2022	22,71,434	22,71,434.00
19	Ms. Neelam Pandey	Dhyana Mandiram Trust and AHYMSIN Rishikesh	DMT Disability Project	DMT & AHYMSIN 2023	04-06-2021	5,00,000	5,00,000.00
20	Mr. Vikesh Semwal	Associacion Cultural Para el Estudio Del Yoga, CI. Espronceda 283.C, Madrid 28003 Spain	Spainish Scholarship	6	30-07-2024	16,21,440	16,21,440.00
21	Mr. Sunil Khanduri	Panchyati Raj Department Dehradun, Uttarakhand	Training on Panchayat Members	IN-UK906647 53840756V	04-12-2023	9,66,000	9,66,000.00
22	Mr. Vikesh Semwal	Pooja Kajal foundation Netherlands	Flying Birds School	Pooja Kajal Foundation 2023	15-03-2023	3,63,103	3,63,103.00
23	Ms. Neelam Pandey	Dhyana Mandiram Trust and AHYMSIN Rishikesh	DMT Disability Project	80	02-05-2023	10,00,000	10,00,000.00
24	Mr. Sunil Khanduri	NewSpace India Limited Bengaluru (NSIL)	Primary Health Care for the villages of Kalsi Block, Dehradun	IN-UK886900 45009344U	07-02-2022	7,78,387	7,78,387.00
25	Mr. Ravindra Verma	Wipro Cares, Doddakannelli, Sarjapur Road, Bangalore	Wipro Health Care	IN-KA787787 00710347U	09-11-2022	44,63,675	44,63,675.00
26	Mr. Vikesh Semwal	Caring Hand for Children 6901 Mcaren Ave West Hills CA	Sponsor A Child Scholarship program (SAC)	21	21-10-2023	2,47,890	2,47,890.00
27	Mr. Vikesh Semwal	Caring Hand USA	Caring Hand Scholarship	13	25-04-2023	2,45,880	2,45,880.00
28	Mr. Vikesh Semwal	Associacion Cultural Para el Estudio Del Yoga, CI. Espronceda 283.C, Madrid 28003 Spain	Spainish Scholarship	18	12-07-2023	13,41,600	13,41,600.00
29	Dr Rakesh Kumar	Endowment chair Research in Breast Cancer in Young Women	Research in Breast Cancer in Young Women	SRHU/VC/ OO/2023-03	22.06.2023	50,00,000	50,00,000.00
30	Dr Aharon Ciechaover	Endowment chair Swami Rama Chair for Cancer	Swami Rama Chair for Cancer	SRHU/VC/ OO/2023-01	16.06.2023	1,50,00,000	1,02,85,530.00

31	Dr Shashi Bala Singh	Endowment chair Translational research in Biosciences	Translational research in Biosciences	SRHU/VC/OO/2023-02	22.06.2023	1,00,00,000	50,00,000.00
Total							9,04,53,214.00

Research Income from Industry and Commerce per Academic Staff					
S.No.	**Financial Year**	**Name of faculty (Chief Consultant)**	**Client Organization**	**Title of Consultancy of project**	**Amount received (INR)**
1	2023-24	Dr Sanjiv Verma	Paraxel International Clinical pvt ltd/Pfizer ltd	MagnetisMM-7: A randomized, 2-arm, Phase 3 study of elranatamab (PF-06863135) versus lenalidomide in patients with newly diagnosed multiple myeloma after undergoing autologous stem-cell transplantation.	7,03,885
2	2023-24	Dr Sanjiv Verma	Clintha research Ltd/Zydus Life Science Ltd	A phase III, prospective, Randomized , Multicentre. Comparative, Double Blind, Parallel group study to invsetigate the effiacy, safety and pharmacokinetics of ZRC-3276 versus Opdivo (Nivolumab) in subjects with locally advanced or Metastatic Non Small Cell Lung Cancer	7,13,759
3	2023-24	Dr Yogesh Preet Singh	Dr Reddy,s Laboratories Ltd	A randomised, double-blind, multicentre study comparing the efficacy, safety and immunogenicity of proposed Abatacept biosimilar (DRL_AB) with Orencia administered by the intravenous route as an add-on to methotrexate in the treatment of patients with moderate to severe rheumatoid arthriti	59,000

4	2023-24	Dr Ankit Batra	Fortrea Development I Pvt Ltd	A Phase III, Open-Label, Randomised Study to Assess the Efficacy and Safety of Camizestrant (AZD9833, a Next-Generation, Oral Selective Estrogen Receptor Degrader) Versus Standard Endocrine Therapy (Aromatase Inhibitor or Tamoxifen) as Adjuvant Treatment for Patients with ER+/HER2- Early Breast Cancer and an Intermediate-High or High Risk of Recurrence Who Have Completed Definitive Locoregional Treatment and Have No Evidence of Disease	82,600
5	2023-24	Dr S K Verma	Hetero Bio pharma.Ltd	A Randomized, Multiple-dose, Multicenter, Comparative Parallel study to Evaluate thePharmacokinetic, Pharmacodynamic, Efficacy and Safety of Subcutaneous Injection of Denosumab (Hetero) and Reference Medicinal Product (Denosumab, Amgen Inc.) in patients with bone metastases from solid tumors	50,000
6	2023-24	Dr Nand Kishore	IDD RESEARCH Solution Pvt Ltd	A post marketing surveillance study to assess safety and tolerability of Liposomal	59,000
7	2023-24	Dr Kunal Gurunani	Novartis Healtcare Private-Limited	CKJX839D12302 - Protocol Title: A randomized, double-blind, placebo-controlled multicenter study to evaluate the effect of inclisiran on preventing major adverse cardiovascular events in high-risk primary prevention patients (VICTORION-1 PREVENT)	8,79,168

8	2023-24	Dr Yogesh Preet Singh	Virchow	Comparative pharmacokinetic ,pharmacodynamic safety ,effcacy and immunogenicity study of VBRTXM01 (Virchow Rituximab) verus Ristova (Roche Rituximab)in patients with rheumatoid arthritis	59,000
9	2023-24	Dr Digvijay Singh	Vivotech Research Lab Pvt Ltd	A Prospective, Randomized, Open-labelled, Multi-centric, Parallel-group.Phase III Study to Assess the Efficacy and Safety of Febuxostat ER Tablet 40/80 mg versus Febuxostat IR Tablet 40/80 mg for treatment of chronic hyperuricemia in conditions where urate depression has already occurred (including a history, or presence of tophus and/or gouty arthritis)"	59,000
10	2023-24	Dr Deepa Singh	Samvedna Pain & EndoSpine Centre, CMI Hospital Dehradun	Cadaveric Workshop on spine endoscopy	2,70,220
11	2023-24	Dr Deepa Singh	Indian Orthopaedic Association	HIP Arthroplasty Couse	1,94,700
12	2023-24	Dr Deepa Singh	Sarcoma Education Foundation (SEF) with Indian Musculoskeletal Oncology Society (IMSOS	Orthopaedic oncology cadaveric workshop	95,000
13	2023-24	Dr Deepa Singh	Indian Orthopaedic Association	Total Knee Arthroplasty	1,57,000
14	2023-24	Dr Deepa Singh	Indian Orthopedic Association	Cadaveric Workshops on knee preservation and complex ligament repair	1,59,300
15	2023-24	Dr Deepa Singh	smith-nephew	Cadaveric Workshops on Shoulder arthroscopy	1,89,980
16	2023-24	Dr Deepa Singh	IndoKorean-ENDOSPINE'2023 – Dehradun Samvedna Pain & EndoSpine Centre, CMI Hospital	Cadaveric Workshop on Spine Endoscopy	2,28,920
17	2023-24	Dr Deepa Singh	20th UAIOACON AIIMS Rishikesh under the aegis of IOA	Cadaveric Workshop on Spine Endoscopy	99,120
18	2023-24	Mr. Vikesh Semwal	Pooja Kajal foundation USA	Flying Birds School	3,63,103
19	2023-24	Ms. Neelam Pandey	Dhyana Mandiram Trust and AHYMSIN Rishikesh	DMT Disability Project	10,00,000

20	2023-24	Mr. Sunil Khanduri	NewSpace India Limited Bengaluru (NSIL)	Primary Health Care for the villages of Kalsi Block, Dehradun	7,78,387
21	2023-24	Mr. Ravindra Verma	Wipro Cares, Doddakannelli, Sarjapur Road, Bangalore	Wipro Health Care	44,63,675
22	2023-24	Mr. Vikesh Semwal	Caring Hand for Children 6901 Mcaren Ave West Hills CA	Sponsor A Child Scholarship program (SAC)	2,47,890
23	2023-24	Mr. Vikesh Semwal	Caring Hand USA	Caring Hand Scholarship	2,45,880
24	2023-24	Mr. Vikesh Semwal	Associacion Cultural Para el Estudio Del Yoga, CI. Espronceda 283.C, Madrid 28003 Spain	Spainish Scholarship	13,41,600
TOTAL					**1,25,00,187**

Details of the Income received from Public Institutions by Academic Staff:

Research Income from Public Institutions per Academic Staff towards Rural Sustainability					
S. No.	**Financial Year**	**Name of faculty (Chief Consultant)**	**Client Organization**	**Title of Consultancy of project**	**Amount received (INR)**
1	2023-24	Mr. Nitesh Kaushik	State Water Sanitation Mission, GoUK	Training program on Jal Jeevan Mission for Level- 3	95,90,000
2	2023-24	Mr. Nitesh Kaushik	Ministry of Jal Shakti, Govt. of India	Training program on Jal Jeevan Mission for Level- 2	1,41,65,081
3	2023-24	Mr. Sunil Khanduri	Panchyati Raj Department Dehradun, Uttarakhand	Training on Panchayat Members	9,66,000
Total					**2,47,21,081**

External Publicly Funded Research Initiatives

In addition to the aforementioned research projects, the academic staff have successfully secured the supplementary grants detailed below, funded by various public institutions (e.g., government agencies, national trusts, and international bodies). These projects underscore the University's commitment to externally recognized research excellence.

S. No.	Name of Faculty (Principal Investigator)	Name of the Funding agency	Title of the Project	Sanctioned order no.	Sanctioned Date	Amount Received (INR)
1	Dr Juhi Kalra	Indian Council of Medical Research (ICMR)	Implementation of Standard Treatment Workflows (STWs) for pediatrics to improve adherence to the guidelines in the setting of a district hospital under District Residency Program of NMC 2021	STW/Nconatology/2023-NCD-1I	02-01-2024	1,53,36,008

2	Dr. Rajeev Bijalwan	Indian Council of Medical Research (ICMR)	SANKALP (Strengthening Program Implementation and Monitoring to Achieve Single-digit Neonatal Mortality)	2023-NHRP-NEONATAL MORTALITY-IR DATED 22.2.2024	22-02-2024	1,84,06,242
Total						**3,37,42,250**

Conclusion and Future Trajectory

This report provides a comprehensive account of Swami Rama Himalayan University's (SRHU) profound commitment to building a resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. Guided by its core humanitarian philosophy, the University has firmly established itself as a leading force in translating academic knowledge into tangible societal and economic benefit, particularly within the Himalayan region.

The Pillars of Impact

SRHU's success is built upon a dynamic synergy across three key operational areas:

1. **Innovation and Intellectual Property:** The University has successfully cultivated a robust culture of invention, resulting in an impressive Intellectual Property (IP) portfolio, including 96 Published Patents and 10 Granted Patents. These innovations—from specialized medical devices like the Strapless Facemask to novel laboratory apparatus—demonstrate a clear, translational pipeline that moves technology from research discovery to protectable, industry-ready assets. This output underpins a commitment to accelerating the national technological base.
2. **Research-Driven Industrial Integration:** SRHU's research agenda is deliberately focused on high-impact areas, including Digital Transformation, Sustainable Industrial Processes, and the creation of Resilient Infrastructure. The practical relevance of this work is validated by significant external funding, including ₹1.25 Crore in research income from industry and commerce, and over ₹3.37 Crore in supplementary grants from public institutions like the ICMR. This financial investment confirms the University's status as a trusted partner for solving critical challenges in healthcare, public health, and environmental sustainability.
3. **Capacity Building and Entrepreneurial Ecosystem:** The establishment of the Himalayan Centre for Innovation and Entrepreneurship (HCIE) provides the resilient physical and human infrastructure necessary for new venture creation. Through dedicated co-working spaces, ideation lounges, and targeted workshops, HCIE empowers students and faculty across disciplines to successfully launch ventures such as Canfinis Therapeutics and Himfla Pvt Ltd, thereby directly promoting inclusive industrialization and regional economic diversification.

Outlook for Continuous Development

Moving forward, SRHU is strategically focused on maximizing the societal return on its investments in research and infrastructure. The immediate priority is leveraging the substantial volume of published patents by driving them through the full commercialization pipeline. By strengthening the mentorship network and focusing on technology transfer, the University will continue to ensure that its facilities, academic outputs, and innovations serve as enduring pillars for a sustainable, self-reliant, and technologically advanced future for all communities it serves.