

Annual Report 2022-23

Hemwati Nandan Bahuguna Garhwal University (U-0557)

IIC ID: IC201811706



A. About IIC Institute

Vision of IIC established at the Institute

"To foster a culture of innovation, entrepreneurship, and problem-solving within the academic community of Hemwati Nandan Bahuguna Garhwal University. We aim to become a hub of creativity and innovation that empowers students, faculty, and staff to transform ideas into impactful solutions for societal and economic challenges."

Mission of IIC established at the Institute

- **Promote Innovation:** To cultivate a spirit of innovation and creativity among students and faculty by providing the necessary resources, guidance, and opportunities to explore and develop innovative ideas.

Support Entrepreneurship: To nurture and support aspiring entrepreneurs within the university by offering mentorship, training, and access to networks and resources, thereby contributing to economic growth and job creation.

- **Collaboration and Networking:** To facilitate collaboration and partnerships between academia, industry, and the community to create a dynamic ecosystem for innovation and knowledge exchange.

Skill Development: To equip students and faculty with the skills, knowledge, and tools required for innovation, entrepreneurship, and problem-solving, ensuring their readiness for the evolving demands of the future.

- **Societal Impact:** To encourage and guide innovation projects and initiatives that address pressing societal challenges, promoting a sense of social responsibility among the university community.
- **Research and Development:** To support research activities that have the potential for innovation and commercialization, bridging the gap between academic research and practical applications.
- **Continuous Learning:** To establish a culture of continuous learning and improvement within the institution, fostering adaptability and resilience in the face of change.

Recognition and Awards: To recognize and celebrate the achievements and contributions of innovators and entrepreneurs from within the university, motivating others to follow suit.

➤ **Journey of IIC established at the Institute**

In response to the invitation extended to university officials by the Ministry of Education (MOE), our institution established an entity known as the 'Institute Innovation Council' (IIC), aligning with the guidelines provided by the MOE for the establishment of such councils. On November 20, 2018, the university officially registered on the MOE's Innovation Cell portal, enlisting the different individuals as members of the council.

➤ **Diversified representation in the IIC established at the institute from industry, Interdisciplinary & Departments/ Units etc.**

The present Indian Innovation Council (IIC) has a diverse composition, featuring coordinators, experts, internal and external members hailing from various regions across the country. Its membership includes individuals from academia, scientific institutions, and industries, fostering a well-rounded and multidisciplinary approach to its mission.

B. Brief mention of key functionaries at the IIC Institute • President • Vice President • Convenor • Coordinators etc.

Prof. Hemwati Nandan President, Institution's Innovation Council (IIC) HNB Garhwal University (A Central University) Srinagar Garhwal, 246176, Uttarakhand, India E-mail: iichnbg@gmail.com; Mobile: +91 7017907069, +91 8909916277		Dr. Gaurav Joshi Convenor, Institution's Innovation Council (IIC) HNB Garhwal (A Central) University, Srinagar Garhwal, 246176, Uttarakhand, India Email: gauravpharma29@gmail.com; Mobile: +91-7888660326	
1.	Innovation activity coordinator	Dr. Rohit Mahar (Assistant Professor)	Department: Chemistry Campus: Srinagar Garhwal, H.N.B. Garhwal, University Mobile: +91-9557559849 Email: rmahar@hnbgu.ac.in;
2.	Start-up activity coordinator	Dr. Deepak. K. Rana	Department: Horticulture Campus: Srinagar Garhwal,

		(Assistant Professor)	H.N.B. Garhwal, University Mobile: 9412137680 Email: drdkrana@gmail.com
3.	Internship coordinator	Dr. Surendra Puri (Assistant Professor)	Department: Chemistry Campus: Srinagar Garhwal, H.N.B. Garhwal, University Mobile: 8953215393, 8889852927 Email: puri.surendrachem@gmail.com
4.	IPR activity coordinator	Dr. Bhupinder Kumar (Assistant Professor)	Department: Pharmacy Campus: Srinagar Garhwal, H.N.B. Garhwal, University Mobile: 9877311037, 8699273452 Email: bhupinderkumar25@gmail.com
5.	Social Media Coordinator	Dr. Saket Bharadwaj (Assistant Professor)	Department: Department of Mass Communication Campus: Srinagar Garhwal, H.N.B. Garhwal, University Mobile: +91 8051093337 Email: sktbharadwaj7@gmail.com
6.	ARIIA Coordinator	Dr. Vivek Sharma (Assistant Professor)	Department: Physics Campus: Srinagar Garhwal, H.N.B. Garhwal, University Mobile: +91-8130618832 Email: vsharma.phys@gmail.com
7.	NIRF coordinator	Dr. Manisha Nigam (Assistant Professor)	Department: Biochemistry Campus: Srinagar Garhwal, H.N.B. Garhwal, University Mobile: +917895583616 Email:anandmanisha23@gmail.com,

C. Portfolio/graphical/Tabular representation of Resource strength (human capital and Physical capital) of the IIC institution (Depicted in Figure 1)

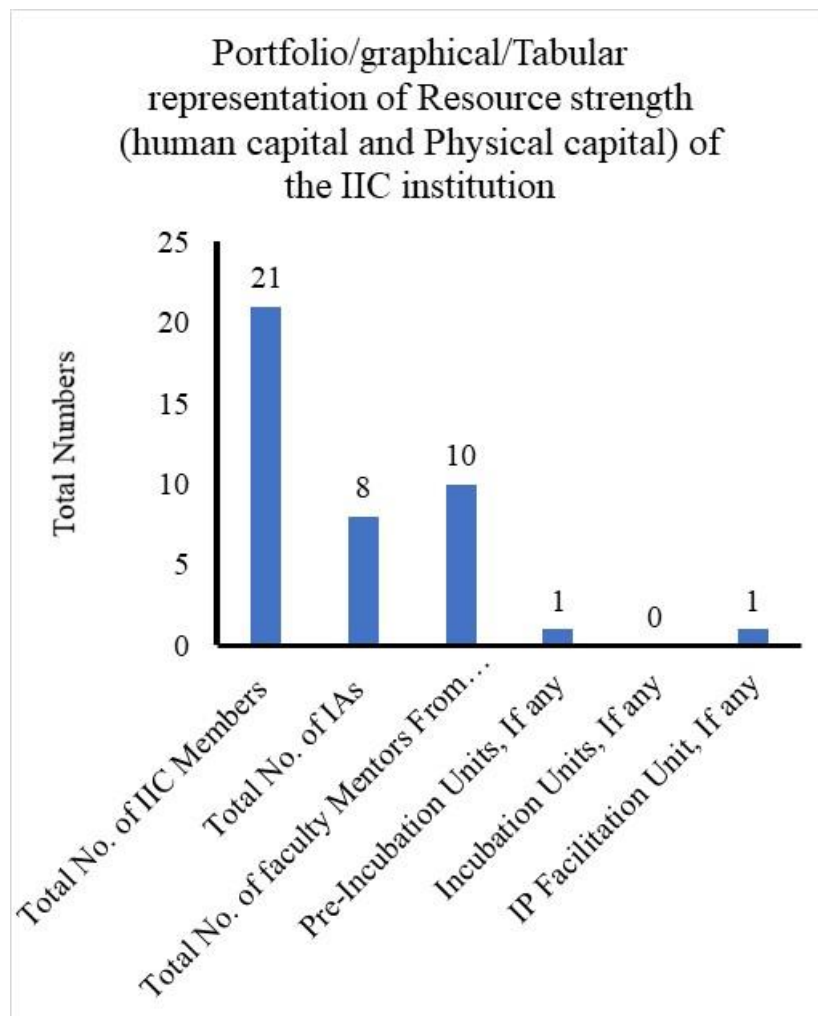


Figure 1

D. Highlight Facilities, Infrastructure of Pre-Incubation & Incubation kind and Student bodies/clubs engaged in promotion of Innovation and Entrepreneurship in the campus

E. Highlight Achievements (Narrative/Graphical/tabular representation)

1. Number and Different types of I&E and IPR activities Conducted:
2. No. of student's & faculty ideas generated:
3. No. of student's & faculty Innovation/prototypes developed:
4. No. of IPs generated, published and granted:
5. No. of Student & Faculty Start-ups/Ventures established:
6. Amount spent on promotion and awareness generation on Innovation Entrepreneurship in the campus:

7. Amount grant or fund supported to student & Faculty lead Innovations, start-ups and IPR:
8. No. of Technology Transfer and Commercialisation happened:

F. Highlight few best IIC Faculty/Student members and their achievements/Rewarded for the innovations at different forum [Profile of few faculties with 2-3 line of their achievements]

Dr. Sanjay Upadhyay from the Physics Department has received a generous grant of Rs. 30 lakhs (INR) for his groundbreaking research on "Multiferroicity near room temperature by strain engineering in type-II multiferroics: Holy grails for memory devices." This innovative work promises to have significant implications for memory device technology. Dr. Upadhyay's research in the field of multiferroicity and strain engineering is expected to pave the way for the development of advanced memory devices with enhanced performance and capabilities.

Dr. Rohit Mahar's work in the field of understanding metabolic disorders and developing innovative diagnostic and therapeutic interventions is truly commendable. In 2023, he achieved a significant milestone by securing a US patent for his groundbreaking innovation: a new metabolic imaging modality known as Deuterium Magnetic Resonance Imaging. This modality, with its selectivity and specificity for Deuterated tracer, particularly Deuterated glucose, holds immense promise for diagnosing cancer and various other metabolic disorders with precision and accuracy.

Furthermore, Dr. Mahar's dedication to advancing the field is evident through his recent receipt of the SERB-SRG project. This project not only showcases his commitment to furthering our understanding of cancer metabolism but also highlights his efforts to develop novel therapeutic interventions that can have a positive impact on patients' lives.

G. Highlight selected best Innovations & images with mention of inventor/innovation name

The Physics Department at HNB Garhwal Central University has patented a 'power generating tile.' Alok Sagar Gautam led the project, which combines solar, piezoelectric, and electromagnetic generators in a compact tile. The team collaborated with the Karunya Institute of Technology and Sciences. The tile harnesses energy from foot traffic, converting it into electrical energy through piezoelectric and axial power generators. Excess energy is stored in

a battery and can power various applications like lighting intersections, advertising displays, and bus stop Wi-Fi.

H. Highlight selected start-ups established by students/faculties with mention of founder/cofounder name

The startups in the region exist but are not primarily centered around innovation and technology. Given that the university is located in a remote area of the Himalayan region, the predominant focus here is on startups that offer livelihood opportunities to the villagers and support their agricultural needs.

I. List if any break through Innovations / Technology Developed at the institute (2-3 technology with 2-3 lines about technology and innovation

None so far.

J. Participation of IIC-institute in various programs of Central and State Govt. Highlighting specially for the schemes or programs

- **ARIIA – participation and Rank: NA**
- **NISP Adoption status: NA**
- **Trained Faculty, Policy Formulation, Policy Implementation:** Programs includes NEP2020 and G20 summit
- **Smart India Hackathon:** Yes, the program is scheduled to begin in November 2023.

K. Detail of social media & Connections of IIC institute

Currently, we are primarily disseminating information through the following channels:

LinkedIn Account: We use our LinkedIn account to connect with professionals, industry experts, and potential partners who are interested in our university's initiatives and activities. This platform allows us to share updates, connect with a wider professional network, and promote our mission.

University Facebook Page: Our university's Facebook page serves as a hub for engaging with the community, including students, alumni, and local residents. We share news, events, and relevant content to keep our followers informed and connected with our institution.

IIC YouTube Channel: The IIC YouTube channel is a valuable resource for showcasing the innovative projects, startups, and entrepreneurial endeavors coming out of our university.

L. Testimonials from IIC members and external about IIC institute and IIC of MoE's Innovation Cell

Testimonial 1:

I am delighted to share my testimonial for the IIC Institute and the Ministry of Education's (MoE) Innovation Cell. My journey with these organizations has been a transformative experience.

The IIC Institute's programs have equipped me with essential skills and knowledge, while the MoE's Innovation Cell has ignited my passion for innovation. Together, they have fostered a culture of creativity and problem-solving. The guidance and mentorship from the IIC Institute's expert faculty have been invaluable, and the Innovation Cell's events and challenges have allowed me to collaborate and innovate.

In summary, the IIC Institute and MoE's Innovation Cell are catalysts for personal and professional growth. I wholeheartedly recommend them to anyone seeking to thrive in the world of innovation and entrepreneurship.

(Ashish Ranjan, External Member IIC)

Testimonial 2:

I am thrilled to share my heartfelt testimonial about my experience with the IIC Institute and the Ministry of Education's Innovation Cell. These organizations have played a pivotal role in shaping my educational journey and igniting my passion for innovation.

The IIC Institute offers a wealth of knowledge and practical skills that are highly relevant in today's fast-paced world. The courses and programs are well-structured, and the dedicated faculty members have consistently inspired me to excel in my studies. The Institute's commitment to excellence is truly commendable.

The Innovation Cell of the Ministry of Education has been a game-changer for me. It has provided a dynamic platform for nurturing creative thinking and problem-solving skills. Participating in their innovation challenges and events has allowed me to collaborate with like-minded individuals and turn innovative ideas into reality.

What sets the IIC Institute and the Innovation Cell apart is their unwavering dedication to promoting innovation and entrepreneurship. They not only provide the tools and knowledge but also foster a supportive environment where ideas can flourish.

In conclusion, my journey with the IIC Institute and the MoE's Innovation Cell has been incredibly rewarding. I am immensely grateful for the opportunities they have given me and the invaluable experiences I have gained. I wholeheartedly recommend these organizations to anyone looking to embark on a path of innovation, education, and personal growth. They are true pioneers in the field, and I am excited to see the positive impact they will continue to have in the future.

(Sanjay Upadhyay, Member IIC)

M. Images





N. Contact

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