3.3.1 ***Institution has created an ecosystem for innovations, Indian Knowledge System (IKS) including awareness about IPR, establishment of IPR cell, Incubation centre and other initiatives for the creation and transfer of technology/knowledge and the outcomes of the same are evident***

The university is always making proactive effort to for creating an **ecosystem for innovation** that promotes creativity and innovation among students, faculty members and facilitate development of innovative systems, processes, products, technology and service for the benefit of the society. The University recruits young and dynamic faculty, and provide them excellent research infrastructure. Understanding how important infrastructure is for fostering creativity, the university has invested ample of money by providing centralized laboratories, advanced equipment's, 24h electricity supply without interruption, and scientific literature through J-Gate. Some of the innovative ideas coming through the interaction of stake holders i.e. farmers, industrialists, faculty and the students viz.

- Bio-fertilizers i.e. NPK (Nitrogen, Phosphorus and Potassium) microbial consortium and Bio-pesticides based on the formulations of insecticidal crystal protein of *Bacillus thuringiensis* (Granted patent)
- State of the art laboratories (Food Chemistry and Analysis, Food instrumentation and Quality Control and Food Microbiology).
- Different Pilot Plants facilities (Extrusion unit, Bakery unit, Fruit & Vegetable Processing)
- Developed an Agro-meteorology and Climate Change station,
- Use of the millets as per the direction of UGC for their utilization and popularization in form of the products for the society.
- Commercialise a wheat grass drink, highlight the university's involvement in knowledge transfer and practical application

Through collaboration with farmers, the "lab to land" initiatives make sure that research findings are put to use in the agricultural industry, resulting in significant and long-lasting solutions.

In order to make use of the **Indian Knowledge system** the wealth of Ayurveda knowledge for medicines from the medicinal plants have been explored and the Botanical garden is established in which several medicinal plants are grown and maintained, Researchers are actively involved in purification and characterization of plant secondary metabolites from diverse medicinal plants including Acorus calamus, *Albizia lebbeck, Aloe vera, Cymbopogon citratus, Melissa officinalis, Nerium indicum, Oroxylum indicum, Phyllanthus emblica, Rauvolfia serpentina, Ricinus communis, Roylea cinerea, Syzygium*

cumini, Terminalia arjuna, Terminalia belirica, and *Withenia somnifera* for the development of new drugs for the treatment of various diseases. The department of Music has engaged their research scholars on studies concerning on the preserve of the classical music and the instruments used in the hilly areas which is of high quality and unique.

In order to **create awareness regarding IPR,** nearly ----workshops were conducted in the last five years under report in association with the HIMSCOT Shimla. These awareness programmes have been mandatory to attend for the faculty and PG students. Consultants (Bansal IP associates, Chandigarh) have been hired to help register the patents. A total of eight patents have been registered, and published and two has been granted.

The **incubator cell** facilitates the entrepreneurial support by providing required infrastructure in the form of office space, personal computers and internet connectivity as well as common infrastructure like conference rooms and teleconferencing facilities.

The university has taken the initiative to develop and disseminate/ **transfer technology**/information about integrated agricultural systems under the NABARD project, helping farmers with projects like beekeeping, vermicomposting, and silage production.