



Webinar on

Career In Creativity and Innovation

Date: 18 July 2026

Organized by

**Directorate of Higher Secondary
Education(DHSE), Bhubaneswar**

**In Collaboration with
UNICEF,Odisha**

Technical Partner



About the Partnership:

The **Directorate of Higher Secondary Education (DHSE)**, under the **School & Mass Education Department, Government of Odisha**, in collaboration with **UNICEF Odisha** and the **Identity Foundation Trust**, is implementing the **Strengthening the School-to-Work Transition** initiative through a series of career guidance webinars. The initiative aims to equip students of **Classes 11 and 12** with career awareness, future-ready skills, and knowledge of diverse career pathways, enabling them to make informed academic and career decisions.

About the Webinar Series:

The Directorate of Higher Secondary Education (DHSE), Government of Odisha, successfully organized the fourteenth session of its state-level webinar series on the theme, "**Career in Creativity and Innovation.**"

The session was designed for Class 12 students and their teachers to introduce career opportunities in creativity, innovation, and emerging technologies. It encouraged students to develop creative thinking, design thinking and innovation skills while exploring careers in entrepreneurship, research, design, technology, and other creative fields.

No. of higher-secondary schools / colleges attended the webinar session	138		
No. of Class XII Boys students who attended the webinar session	3020	8575	
No. of Class XII Girls students who attended the webinar session	5555		
No. of male faculties who attended the webinar session	617	1072	
No. of female faculties who attended the webinar session	455		

About the Resource Person:

Prof. (Dr.) Suman Bhattacharya served as the Resource Person for the webinar. He is a Professor of Computer Science & Engineering and Director, Career School & Next-Gen Learning, KIIT University, with over 28 years of experience in Artificial Intelligence, Natural Language Processing, Speech Technology, and Machine Learning. He has over 15 years of industry experience with the TATA Group and TCS, has mentored 80,000+ students and startups, and holds a Ph.D., 6 patents, and 53 research publications.



Welcome Note by the Moderator:

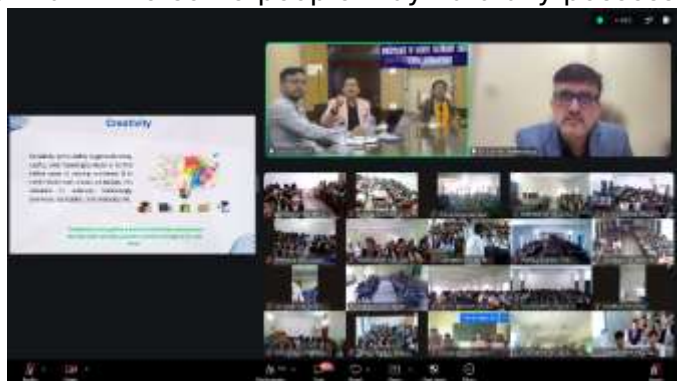
Mr. Jasobant Narayan Singhlal warmly welcomed the students, teachers, and the Resource Person to the second session of the DHSE webinar series. He introduced the theme, "**Career in Creativity and Innovation**," and highlighted the importance of creativity, innovation, and emerging technologies in today's rapidly changing world. He encouraged students to actively participate in the session, interact with the Resource Person, and make



the most of the opportunity to explore new career possibilities and future-ready skills. He also welcomed **Prof. (Dr.) Suman Bhattacharya** and expressed confidence that his rich academic and industry experience would provide valuable insights to the participants.

Understanding Creativity:

The discussion began with the moderator, Mr. Jasobant Narayan Singhlal, asking **whether creativity is an inborn talent or a skill that can be developed**. Responding to the question, Prof. (Dr.) Suman Bhattacharya explained that while some people may naturally possess creative abilities, creativity is a skill that can be learned and enhanced through curiosity, observation, practice, and continuous learning. He encouraged students to believe that everyone has the potential to become creative by developing the habit of thinking differently and exploring new ideas.



He further described **creativity as the ability to present familiar things in an unfamiliar or unique way**. According to him, creativity is reflected in how people observe everyday situations and develop simple yet effective solutions to common challenges. He encouraged students to remain curious, experiment with new ideas, and view mistakes as opportunities to learn and grow.

Illustration of Creativity

To explain this concept, he shared an example from school days where children made **cricket balls using waste plastic**. He explained that using available resources to create something useful demonstrates how innovation often begins with simple ideas and a creative mindset.

Introduction to Design Thinking:

Prof. (Dr.) Suman Bhattacharya introduced

Design Thinking as a structured approach to solving problems by understanding people's needs and developing practical, user-focused solutions. He explained the five stages of the Design Thinking process:

- **Empathize:** Understand the needs, experiences, and challenges of the people for whom the solution is being developed.
- **Define:** Clearly identify and define the problem based on the insights gathered.
- **Ideate:** Generate a wide range of creative ideas and possible solutions without limiting innovation.
- **Prototype:** Develop a simple model or sample of the best idea to test its feasibility.
- **Test:** Evaluate the prototype, gather feedback, and refine the solution to improve its effectiveness.



Throughout the discussion, Prof. (Dr.) Suman Bhattacharya emphasized that **Design Thinking is not a one-time process but a continuous cycle of learning, testing, and improvement**. He explained that every idea can be refined based on feedback and experience, and encouraged students to view failures as opportunities to learn and develop better solutions. He stressed that this approach enables individuals to transform simple ideas into practical and meaningful innovations.

To explain how design thinking leads to innovation, the resource person shared simple examples from everyday life. He pointed out how the **flip-top cap on sauce bottles** made



dispensing sauce easier, cleaner, and more convenient than traditional bottle caps. He also highlighted the **tea plate designed with a separate space for a cup and biscuits**, showing how understanding users' needs can lead to simple yet effective innovations. Through these examples, he demonstrated that design thinking is about identifying everyday problems and creating practical, user-centric solutions.



Students Corner

During the interaction, **Amar Sahoo**, a student participant, shared that he had developed a chemical formulation which, when sprayed on plants, helps promote flower formation. He asked what will be his next step with product?

Responding to the student's query, **Prof. (Dr.) Suman Bhattacharya** advised that the **first step would be to secure a patent** for the idea and the underlying technology to protect the innovation. He further explained that once the concept is validated and a working prototype is developed, the student could approach **Agri-chemical manufacturing companies** to demonstrate the innovation and explore opportunities for further research, development, and commercialization.



During the interaction, another student shared his idea of developing an AI application that could provide responses faster than ChatGPT and sought guidance on the next steps. Responding to the query, Prof. (Dr.) Suman Bhattacharya explained that the performance of such an application depends on factors such as the quality and size of the dataset, the server infrastructure, and the data retrieval mechanisms used by the platform. He cited examples of AI platforms such as ChatGPT, Gemini, and Claude, explaining that each function differently based on its underlying architecture and data sources. He further stated that he would first need to examine the student's application before suggesting the appropriate next steps or providing further guidance on its development.

Question from the Director, DHSE:

During the discussion on patents, **Smt. Niyati Pattanaik, Director**, requested Prof. (Dr.) Suman Bhattacharya to briefly explain the patent registration process for the benefit of the students. In response, he explained that the first step is to determine whether the idea or invention is novel, followed by filing a patent application. After examination and approval by the Patent Office, the inventor is granted patent rights, providing legal protection and exclusive ownership of the innovation. He encouraged students to protect their original ideas before sharing them publicly or approaching industries. He also assured the students that anyone with an innovative idea or project could connect with him personally for guidance. He expressed his willingness to mentor students in refining their ideas, understanding the patent process, and exploring opportunities for further research, development, and commercialization.



Creativity, Invention, and Innovation- Understanding the Difference:

Prof. (Dr.) Suman Bhattacharya explained the concepts of creativity, invention, and innovation in a simple and relatable manner. He described creativity as the first idea that comes to mind, the ability to think differently and generate new ideas. He explained that invention is the product or solution created from that idea, where creativity takes a tangible form. Innovation, according to him, is the impact created by that idea or invention, when it successfully solves a problem, improves lives, or brings about meaningful change.



Through this explanation, he emphasized that every innovation begins with a creative idea, but it creates real value only when it is transformed into a practical solution that benefits people. He encouraged students to nurture their ideas, experiment with them, and focus on creating solutions that can make a positive impact on society.

Practices to develop Creativity and Innovation

The moderator requested the Resource Person to share practical suggestions on how students could develop their creativity and innovative thinking from an early stage. In response, Prof. (Dr.) Suman Bhattacharya advised students to cultivate the habit of continuous learning, curiosity, and adapting to new technologies. He encouraged them to observe emerging trends, keep upgrading their knowledge, and become next-generation learners. He further advised students to choose a career that they can pursue with passion and confidence for the next 40–45 years, so that they do not later feel they have made the wrong career choice or become frustrated in their profession. According to him, irrespective of whether one becomes a teacher, engineer, entrepreneur, or civil servant, staying updated with new technologies and continuously learning will be essential for long-term success.

Platforms for the Students:

Prof. (Dr.) Suman Bhattacharya encouraged students to actively participate in various school, state, and national-level innovation platforms to develop their creativity, problem-solving abilities, and practical skills. He explained that these platforms provide students with opportunities to apply their ideas to real-world challenges, collaborate with peers, and gain exposure to emerging technologies.



Prof. (Dr.) Suman Bhattacharya encouraged students to actively participate in Atal Tinkering Labs (ATL), Google Hackathons, and similar hackathons and innovation challenges organized by various companies and institutions. He also informed students about the innovation programmes and outreach initiatives conducted by different IITs for school students, explaining that these platforms provide valuable opportunities to learn, experiment, and present innovative ideas. He emphasized that participating in such events not only enhances creativity and technical skills but also builds confidence and opens doors to future academic and career opportunities.





During the discussion, he repeatedly reminded students to remain open to every idea, no matter how simple it may seem, as every innovation begins with a small thought. To explain this, he shared the example of a medicine box with separate compartments for each day of the week. Though the idea appears simple, it helps patients remember their daily medication and prevents them from either missing a dose or taking it twice. Through this example, he encouraged students to observe the problems around them and think of practical solutions, highlighting that even the simplest ideas can make a meaningful difference in people's lives.



Role of AI in Innovation and Start Up:

During the discussion, Prof. (Dr.) Suman Bhattacharya highlighted the growing role of Artificial Intelligence (AI) in driving innovation across every sector. He remarked that AI is now everywhere, and therefore students should begin exploring and learning about it from an early age. He encouraged students not to think that innovation has an age limit, explaining that even a child of 6–7 years can develop a creative idea or an AI-based solution. While such innovations may require legal formalities, including registration, after the age of 18, he emphasized that there is no age to start learning, experimenting, and innovating.



He also introduced students to the **Odisha Hub (OHUB)** and the **District Design and Innovation Platform (DDIP)**, explaining that these platforms support aspiring innovators and entrepreneurs in developing their ideas into startups. He further informed students about the Startup Odisha ecosystem, where innovative ideas and startups can be registered and mentored. He shared that promising startups can receive financial support through government ministries, **the Software Technology Parks of India (STPI)**, and other startup support programmes, with funding opportunities of up to ₹1 crore for eligible ventures. He

encouraged students to make use of these platforms in the future if they wished to transform their innovative ideas into successful enterprises.

Understanding the Patent Filing Process:

Prof. (Dr.) Suman Bhattacharya briefly explained the patent filing process and emphasized the importance of protecting original ideas before sharing them publicly. He stated that the process begins with developing a novel idea that addresses a real-world problem. The inventor should then conduct a patent search to ensure that a similar invention does not already exist.

Once the novelty is confirmed, a patent application describing the invention and its unique features is prepared and filed with the Indian Patent Office. The application is then examined by experts to assess its originality and compliance with patent requirements. If the invention meets all the necessary criteria, the patent is granted, providing the inventor with exclusive legal rights over the innovation. He highlighted that securing a patent is an important step in protecting an idea and creating opportunities for its future development and commercialization.

Students Corner:

During the interactive session, a student asked how psychology plays a role in innovative careers.

Responding to the question, Prof.



(Dr.) Suman Bhattacharya explained that psychology is an important aspect of many professions that require creativity and innovation. He cited the example of interior designing, where understanding a client's needs, preferences, emotions, and lifestyle is as important as having creative ideas. He emphasized that unless a designer is psychologically aware and able to connect with clients empathetically, it becomes difficult to understand their expectations and deliver the best possible solutions. Through this example, he highlighted that empathy, effective communication, and understanding human behaviour play a crucial role in developing innovative and client-centric solutions.

Conclusion:

The webinar provided students with valuable insights into the importance of creativity, innovation, design thinking, and Artificial Intelligence in shaping future careers. Through real-life examples, interactive discussions, and practical guidance, Prof. (Dr.) Suman Bhattacharya encouraged students to think creatively, identify everyday problems, and develop innovative solutions that can create a positive impact. He also introduced students to various innovation platforms, startup support systems, and the patent process, motivating them to transform their ideas into meaningful innovations. The interactive



question-and-answer session further enriched the learning experience by addressing students' queries and inspiring them to become lifelong learners, embrace emerging technologies, and confidently explore careers in innovation and entrepreneurship.

Attendance Details:

District Name	No. of Schools	Class XII		Faculties	
		Boys	Girls	Male	Female

Angul	10	217	393	33	10
Balasore	5	51	111	9	14
Baragarh	5	128	162	29	16
Bhadrak	9	232	451	33	17
Balangir	15	276	511	81	34
Boudh	1	12	18	7	1
Cuttack	3	52	79	3	9
Deogarh	2	101	97	11	3
Dhenkanal	6	147	295	17	12
Gajapati	1	34	46	7	4
Ganjam	8	239	362	49	22
Jagatsinghpur	5	40	242	48	35
Jajpur	1	0	150	7	7
Jharsuguda	3	54	116	9	12
Kalahandi	4	127	144	15	4
Kandhamal	1	34	46	4	7
Kendrapada	3	20	100	10	14
Keonjhar	9	183	452	31	24
Khurda	10	169	164	30	29
Koraput	2	114	68	16	20
Malkangiri	2	80	90	4	3
Mayurbhanj	5	132	233	41	26
Nawarangpur	1	40	45	7	5
Nayagarh	2	63	155	7	6
Nuapada	4	50	118	16	11

Puri	1	45	51	5	10
Rayagada	3	25	70	12	13
Sambalpur	4	41	73	18	18
Subarnapur	1	50	40	7	2
Sundargarh	12	264		673	51
Total Class-Wise		3020		5555	617
Total Schools	138			1072	
Grand Total		8575			

Photos from the Ground:

