MHRD'S INNOVATION CELL (GOVERNMENT OF INDIA)

INSTITUTION'S INNOVATION COUNCIL (Ministry of HRD Initiative)

Report on "Expert Talk on Technology Readiness Level (TRL), MRL, IRL, IP Commercialization, Tech Transfer"

Title of the Session: "Building Market-Driven Start-ups through Effective Sales, Customer-Centric Marketing, and Sustainable Business Models"

Organized By: Institution's Innovation Council (IIC), Swami Vivekananda University, Kolkata

Mode of Delivery: Off-line
No. of Participants: 60
Duration: 4 Hours
Date: 20th February 2026
Venue/Location: MSB Hall 1A, Swami Vivekananda University, Kolkata

Objectives:

The primary objective of the expert talk was to educate participants on globally accepted frameworks such as Technology Readiness Level (TRL), Manufacturing Readiness Level (MRL), and Innovation Readiness Level (IRL) for evaluating the maturity of innovative technologies. The session aimed to help researchers and innovators understand the complete lifecycle of innovation, from idea generation and prototype development to manufacturing readiness and commercialization. Another important objective was to create awareness about Intellectual Property Rights (IPR), patent commercialization, licensing strategies, technology valuation, and technology transfer mechanisms that facilitate the movement of innovations from academic laboratories to industry. The program also intended to encourage faculty members and student innovators to develop commercialization roadmaps, establish industry partnerships, and prepare technology transfer plans for their research outcomes.

Theme:

"Accelerating Innovation through Technology Readiness Assessment, Intellectual Property Commercialization, and Industry-Oriented Technology Transfer."

The session emphasized transforming research and innovative ideas into commercially successful technologies by integrating readiness assessment, intellectual property management, and collaborative technology transfer practices.

Outcome:

The expert talk substantially enhanced participants' understanding of technology maturity assessment, intellectual property management, and commercialization strategies. Faculty members, researchers, and student innovators gained practical knowledge of evaluating their innovations using TRL, MRL, and IRL frameworks while identifying suitable commercialization pathways.

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The key outcomes of the program include:

- Participants developed a comprehensive understanding of **Technology Readiness Level (TRL), Manufacturing Readiness Level (MRL), and Innovation Readiness Level (IRL)** frameworks.
- Increased awareness of intellectual property protection, patent commercialization, licensing, and technology transfer mechanisms.
- Faculty members and innovation teams prepared **post-session technology transfer action plans** for promising research and innovation projects.
- The institution successfully achieved the target of **more than 80% positive participant feedback**, reflecting the relevance and effectiveness of the session.
- **At least one structured technology transfer plan** was initiated during the quarter, supporting the university's innovation commercialization objectives.
- Participants expressed greater confidence in converting research outputs into industry-ready technologies and startup opportunities.

KPI	Achievement
Positive Participant Feedback	More than 80% positive feedback received
Technology Transfer Planning	One technology transfer plan prepared during the quarter
Post-Session Commercialization Planning	Innovation teams developed commercialization and technology transfer roadmaps
Awareness on TRL, MRL & IRL	Significant improvement in participants' understanding of technology readiness assessment frameworks

Session Highlights:

The workshop commenced with an introduction to the importance of marketing and sales in the startup ecosystem, highlighting how successful commercialization depends on understanding customer needs and delivering compelling value propositions. Participants were introduced to the fundamentals of market analysis, customer segmentation, target audience identification, branding, product positioning, and competitive differentiation.

The resource sessions covered key concepts such as digital marketing strategies, sales funnel development, customer acquisition techniques, pricing models, revenue generation, and effective communication with prospective customers. Participants also learned how to identify market opportunities, evaluate customer pain points, and design marketing campaigns tailored to specific customer segments.

A major component of the workshop was the hands-on development of the **Business Model Canvas (BMC)**. Participants worked collaboratively in teams to map key business elements, including value propositions, customer relationships, key partners, key activities, revenue streams, channels, and cost structures. Faculty mentors guided each team in refining their business models and aligning them with market requirements.

Interactive discussions, startup case studies, and group presentations enabled participants to receive constructive feedback and improve the commercial viability of their innovative ideas.

Glimpse of the event:



General Participants Feedback:

Participants highly appreciated the expert talk for its practical relevance and comprehensive coverage of innovation commercialization. They found the explanations of TRL, MRL, and IRL particularly valuable in understanding how research projects progress toward industrial implementation. Faculty members appreciated the discussions on intellectual property management, patent commercialization, and licensing strategies, while student innovators gained confidence in evaluating the market potential of their innovations. The real-world case studies and interactive discussions were especially appreciated for demonstrating successful technology transfer practices. Overall, participants rated the session highly and recommended organizing similar expert interactions on advanced commercialization, incubation, startup funding, and industry collaboration.

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Recommendations:

Based on participant feedback and institutional objectives, it is recommended that advanced workshops on technology commercialization, patent drafting, licensing negotiations, startup incubation, and industry collaboration be organized regularly. Follow-up mentoring sessions should be conducted to support innovators in advancing their technologies through higher Technology Readiness Levels and preparing commercialization strategies. The university should strengthen collaborations with industries, technology transfer offices, incubators, and research organizations to facilitate licensing opportunities, joint research projects, and startup creation. Regular innovation review meetings may also be organized to monitor the progress of technology transfer plans, encourage patent filings, and accelerate the commercialization of university-developed innovations, thereby strengthening the institution's innovation and entrepreneurial ecosystem.

Signature of the Convenor with University Seal

Institution's Innovation Council
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Convener:
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Date: 20th February 2026

Sl. No.	Name	Department	Reg. No. / Faculty ID	Signature
1	Arif Khan	M.E	002-101-202519	Arif Khan
2	Subhen Tanti	M.E	002-101-2025-002	Subhen Tanti
3	Md. Sahid Sahaji	M.E	002-101-2025-004	Md. Sahid Sahaji
4	Pabitra Bhunia	M.E	002-101-2025-009	Pabitra Bhunia
5	Santu Das	M.E		Santu Das
6	Md. IRSHAD ANSARI	B.TECH-ME	002-101-2025-011	irshad.
7	Avishell Samanta	ME	Faculty	
8	SK Jahangir Alam	ME	"	
9	SANAYAN HALDER	ME	000-101-2025-037	Sanayan Halder
10	Koushik Halder	ME	000-101-2025-030	Koushik Halder
11	Bikash Maity	DME	000-101-2025-011	Bikash Maity
12	SAYANTAN KAMILA	DME	000-101-2025-041	Sayantan Kamila
13	Totan Ghosh	CL	000-101-2025-[illegible]07	Totan Ghosh.
14	Alamy Maji	DME		A. Maji
15	Sapan Kumar	DME	000-101-2025-033	Sapan Kr
16	Debanghya Chakraborty	DME	000-101-2025-001	Debanghya Chakraborty
17	Santanu Roy	D.ME		Santanu Roy
18	Satyajit Pal	D.ME		Satyajit Pal
19	Krishnakanta Jana	D.ME		Krishnakanta Jana
20	Akash Das	D.ME		
21	Debaprasad Das	D.ME	000-101-2025-014	
22	Tushar Bangal	D.ME	000-101-2025-058	Tushar Bangal
23	Bamham Kumar	D.M.E	000-101-2025-003	Bamham Kumar
24	Susanta Biswas	D.M.E	000-101-2025-055	Susanta Biswas
25	Anjjit Gayen	D.M.E	000-101-2025-006	Anjjit Gayen
26	Satyajit Pramanik	D.M.E	000-101-2025-[illegible]27	Satyajit Pramanik
27	Ayan Maity	D.ME	000-101-2024-032	Ayan Maity
28	Chandan Bag	D.M.E	000-101-2024-055	C. Bag
29	SANJOY BHUNIA	D.M.E	000-101-2025-091	Sanjoy Bhunia
30	SUDIPTA JANA	D.M.E	000-101-2025-109	Sudipta Jana
31	AVIJIT MANNA	D.M.E	000-101-2024-002	Avijit Manna
32	SANJIT JANA	D.M.E	000-101-2024-120	Sanjit Jana
33	Amit Dangar	DME	000-101-2024-063	Amit Dangar
34	SUBHAJIT PRAMANIK	DME	000-101-2025-101	Spramanik
35	SOUMEN MONDAL	DME	000-101-2024-008	Soumen Mondal
36	Pradip Kr. Karan	D.M.E	000-101-2024-112	P Karan
37	Subhadip Gudhait	D.M.E	000-101-2024-009	S. Gudhait

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41	Mrinal Kumar Das	M.E	Faculty	M K Das
42	Rajiv Ranjan	M.E.	"	
43				
44	Dr. Tapas Chakraborty			
45	Rajiv Ranjan			
46	Sourav Giri	ME	"	
47	Joydip Roy	ME	"	
48	Md Abdul latif	ME	"	
49	SANDIP PRADHAN	ME		Sandip Pradhan
50	Susanta Roy	ME		Susanta Roy
51	Sahadeb Maity	ME		Sahadeb Maity
52	Shahrukh Shaikh	ME		Shahrukh Shaikh
53	Kasib Mandal	CSE		
54	Sutan Mondal	Agri		
55	Sanjoy Mondal	Agri		
56	Kusum khatun	CSE		
57	Ratna Biswas	CSE		Ratna Biswas
58	Riya Adhikari	EE		
59	kuhali Ray	EE		
60	Mitali Biswas	EE		Mitali Ray
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