TECHNOLOGY ENABLING CENTRE (TEC)
(Established by Department of Science and Technology, GoI)
CAREER POINT UNIVERSITY
Tikker, Bhoranj, Hamirpur (H.P.), India – 176041
(NAAC Accredited University)

A BRIEF REPORT
on
EXPERT LECTURE

"Scaling the Innovation"

Hybrid Mode: (Offline/Online)
Offline: University Auditorium
Online on Google meet: ***https://meet.google.com/crb-przm-tnm?hs=122&authuser=0***

DECEMBER 05, 2023

About the Lecture

An expert lecture on "Scaling the Innovation" has been organized by DST-Technology Enabling Centre, Career Point University (DST-TEC, CPUH) to provide invaluable insights into the strategies and challenges associated with transitioning innovations from research to practical applications. Attendees gained a comprehensive understanding of the processes involved in transferring technology from academia to the commercial sector, fostering innovation and economic growth. The lecture catalyzed bridging the gap between research advancements and their real-world impact.

About the Expert

Mr. Harjinder Singh Cheema, Chairman of Cheema Boilers Limited and a graduate from the Naval College of Engineering, Pune, boasts a distinguished career marked by notable achievements. Leading Cheema Boilers Limited, he has garnered honors such as the CBL Company of the Year Engineering Award from Zee Business Group, Industry-Academia Conclave Award, IIT Ropar Honors, and recognition as India's Best Performing mid-sized company by the Indian Brand Equity Foundation. His impactful contributions extend to receiving technology innovation awards from UNIDO & NSIC at Pragati Madain, New Delhi, in 1992. Mr. Cheema's leadership reflects a commitment to excellence in engineering and business, evident in the numerous honors and awards he has received over the years.

About the Audience

Over 350 participants have been registered for the event. These participants included UG/PG students, faculty members, scientists, project staff, and research scholars from numerous academic institutions and research organizations across the region. Notable institutions included were, Career Point University, Hamirpur, SCERT Himachal Pradesh, Himachal Pradesh University, NIT Hamirpur, Maharaja Agrasen University, Panjab University Chandigarh, Dr Harvansh Singh Judge Institute of Dental Sciences and Hospital. Moreover, the event garnered participation from grassroot innovators and leaders, including CEOs and founders of various companies like Brightcraft, Shandil PlanTech Private Limited, Origin LIFE Chandigarh, Green Trek Research and Development Private limited, etc.

Major Takeaways from the Expert Talk

During his engaging presentation, Mr. Harjinder Singh Cheema, the Chairman of Cheema Boilers Limited, skilfully captivated a diverse audience, transforming his lecture into a vibrant platform for the exchange of knowledge and insightful discussions. Notable highlights encompassed the challenges of commercializing new technologies and exploring disruptive performance in technology commercialization. Mr. Cheema also underscored the 5 Cs crucial for aspiring entrepreneurs: Confidence, Courage, Commitment, Consistency, and Communication. Beyond the professional sphere, he shared a personal anecdote highlighting the strength derived from the unity of four brothers and their partners living and working together.

Scaling innovation involves extending the reach and impact of inventive ideas, products, or processes to a broader audience or market. The essential steps in this scaling process include articulating clear objectives aligned with overall business strategy, conducting thorough market research, adapting and iterating based on feedback, building scalable infrastructure, securing funding through strategic means, establishing key partnerships, optimizing internal processes, investing in effective marketing and communication, training and empowering the team, monitoring and evaluating performance through key indicators, actively seeking customer feedback for continuous improvement, and maintaining agility in response to market dynamics. Emphasizing that scaling is an ongoing process, success hinges on adaptability and responsiveness to evolving conditions for sustained growth.

Conclusion

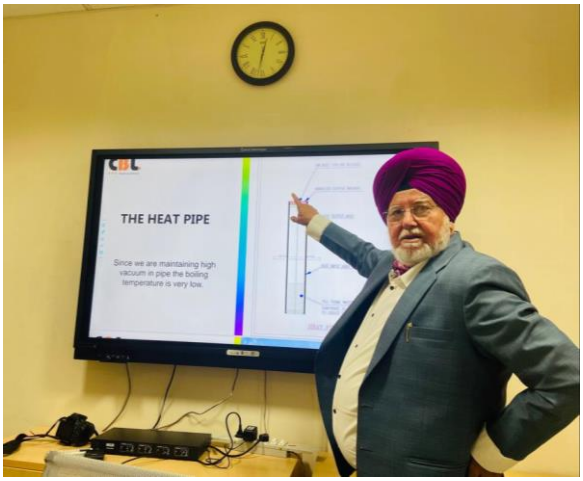
Mr. Harjinder Singh Cheema's presentation at Cheema Boilers Limited proved highly successful, drawing a diverse audience and cultivating an atmosphere conducive to knowledge exchange and collaboration. His remarkable professional history, entrepreneurial achievements, and proficiency in crafting distinctive business models resonated with attendees, creating a memorable and enriching experience for everyone present. Beyond being an exploration of ideas, his insights offer practical guidance on comprehending the intricacies involved in Scaling Innovation. This lecture serves not only as an intellectual journey but also as a pragmatic guide, shedding light on the processes that effectively connect academia with the commercial sector.

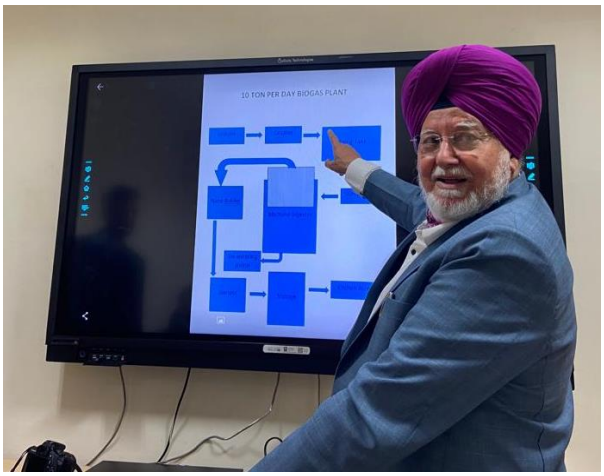
Prepared by:

Er. Puneet Kumar
Project Engineer
DST Sponsored TEC
Career Point University, Hamirpur (H.P.)

Dr. Kuldeep Kumar
Coordinator
DST Sponsored TEC
Career Point University, Hamirpur (H.P.)

Glimpses of the Expert Talk





MEDIA COVERAGE

करियर प्वाइंट विश्वविद्यालय में लगाई कार्यशाला

हमीरपुर, 5 दिसम्बर (राजीव) : करियर प्वाइंट विश्वविद्यालय में इंस्टीच्यूशन इनोवेशन काऊंसिल (आई.आई.सी.) के सहयोग से प्रौद्योगिकी सक्षम केंद्र (टीईसी) द्वारा एक दिवसीय कार्यशाला का आयोजन किया गया। डायरैक्टर रिसर्च डा. कुलदीप कुमार ने बताया कि इस कार्यशाला में मुख्य वक्ता के तौर हरजिंदर सिंह चीमा थे, जोकि चीमा बॉयलर्स लिमिटेड के अध्यक्ष रहे। उन्होंने कहा कि व्यवसाय में आय नुक्सान से डरना नहीं है, क्योकि हर मोड़ के बाद नया रास्ता आपका इंतजार कर रहा होता है।

उन्होंने स्केलिंग इनोवेशन पर नवीन विचारों के प्रभाव को बढ़ाने की जटिलताओं पर प्रकाश डाला। रणनीतिक योजना और अनुकूलनशीलता के महत्व पर जोर देते हुए सफल नवाचारों को स्थानीय स्तर से व्यापक, अधिक प्रभावशाली स्तर तक ले जाने में महत्वपूर्ण विचारों पर प्रकाश डाला। उन्होंने स्केलिंग प्रक्रिया के दौरान चुनौतियों, सहयोग और मुख्य सिद्धांतों के संरक्षण के माध्यम से आवश्यकता को रेखांकित किया। कार्यशाला में 200 से ज्यादा विद्यार्थियों ने भाग लिया। इस कार्यशाला में वि.वि. के कुलसचिव डा. संजय ठाकुर व डीन अकादमिक प्रोफैसर एच.आर. शर्मा भी उपस्थित रहे।

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A BRIEF REPORT
on
EXPERT LECTURE

"Technology Transfer and Commercialization"

Organized Virtually on Google meet: https://meet.google.com/xqb-dvje-nrx

OCTOBER 26, 2023

About the Lecture

An expert lecture on *"Technology Transfer and Commercialization"* has been organized by DST TEC, CPUH to provide invaluable insights into the strategies and challenges associated with transitioning innovations from research to practical applications. Attendees gained a comprehensive understanding of the processes involved in transferring technology from academia to the commercial sector, fostering innovation and economic growth. The lecture served as a catalyst for bridging the gap between research advancements and their real-world impact.

About the Expert

Expert of the day was Mr. C. Vignesh, Technology Commercialization Officer at DST-TEC Anna University, Chennai is a **Biotech Graduate** from School of Engineering and Technology, Anna University, and a **Management Professional** from ICFAI. He created **four start-up companies** by himself and have good business experience in Plastics, Bioplastics, Biotech Laboratory Instruments, Electronics, E-Commerce, Manufacturing and Retail of Food Products, etc., Most of the Business models or products are unique either at national level or international level. He is known for developing unique business models relevant to any Industry or discipline.

About the Audience

Over 170 participants have been registered for the event. These participants included faculty members, scientists, project staff, and research scholars from numerous academic institutions and research organizations across the country. Notable institutions included were, Panjab University, Bundelkhand University, Himachal Pradesh University, NIT Hamirpur, Maharaja Agrasen University, Jaypee University, Post Graduate Institute of Medical Education and Research (PGIMER) Chandigarh, and CSIR-IMTECH Chandigarh. Moreover, the event garnered participation from grassroot innovators and leaders, including CEOs and founders of various companies. Some of the companies and organizations represented at the lecture included Kagzi Bottles Private Limited, Thapasu Foods LLP, Biovantis Healthcare Pvt. Ltd, Pahadee Haldi Products, Nishu Food Products, and Cosmo Ferrites Limited, among others.

Major Takeaways from the Expert Talk

In his engaging presentation, Mr. C. Vignesh, the distinguished Technology Commercialization Officer at DST-TEC Anna University, adeptly captured the diverse audience's attention, transforming his lecture into a dynamic platform for the exchange of knowledge and the dissemination of valuable insights. The event was marked by insightful discussions that delved into the intricate challenges associated with commercializing new technologies.

Some notable highlights included a comprehensive exploration of the Lab-to-market ecosystem, strategies for navigating through various Technology Readiness Levels (TRLs), and optimizing the product development trajectory from Minimum Viable Product (MVP) to the final design. Mr. Vignesh also led a thought-provoking exploration of disruptive performance within the realm of technology commercialization, providing the audience with a holistic understanding of the evolving landscape.

During the interactive discussion segment, participants actively engaged with Mr. Vignesh, seeking clarity on topics such as market size analysis, methods to enhance product productivity, Technology Readiness Levels, challenges related to product marketing, and the intricacies of calculating the Benefit-Cost Ratio (BCR). This exchange of ideas and queries further enriched the learning experience, turning the session into a dynamic forum for the exploration of nuanced aspects of technology commercialization. Mr. Vignesh's expertise and the audience's active participation collectively contributed to a comprehensive and enlightening discussion on the multifaceted facets of bringing innovative technologies to the market.

Conclusion

The lecture addressing "*Technology Transfer and Commercialization*" emerged as an unambiguous success, drawing a diverse and engaged audience and cultivating an atmosphere conducive to the free exchange of knowledge and collaborative endeavours. The distinguished expert leading the session, with an impressive background and notable entrepreneurial accomplishments, showcased a profound mastery in developing Unique Business Models. This wealth of expertise left an enduring impact on the audience, inspiring the event into a truly valuable and memorable experience for all the attendees. The expert's insights, delivered with a seasoned perspective, offered profound understanding on the complex strategies and challenges entwined with the realms of Technology Transfer and Commercialization. Attendees were not only treated to a theoretical exploration of ideas but were also guided through a practical journey, gaining a comprehensive understanding of the processes that effectively bridge the gap between academic research and the commercial sector. It illuminated the path for the audience, providing tangible insights into the nuanced procedures involved in navigating the complex landscape of Technology Transfer and Commercialization.

Prepared by:

Er. Puneet Kumar
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Dr. Kuldeep Kumar
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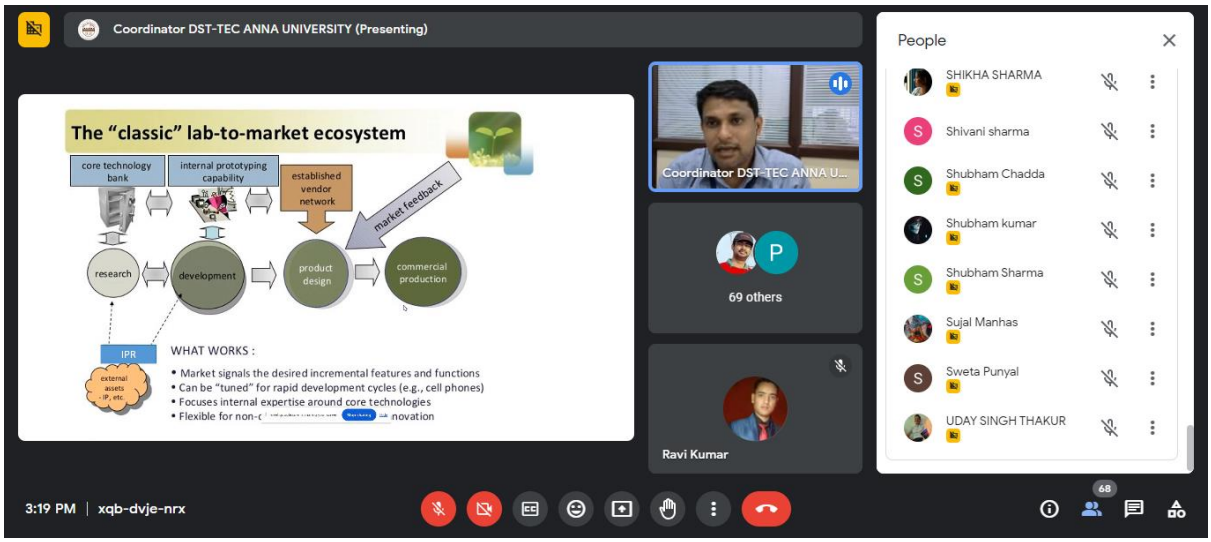
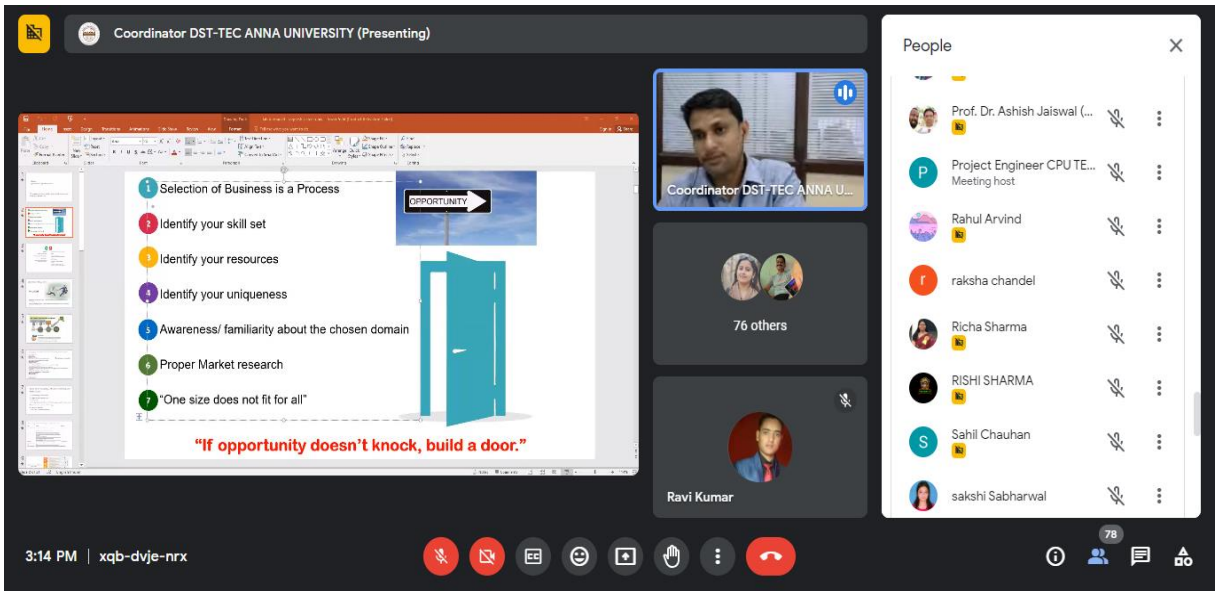
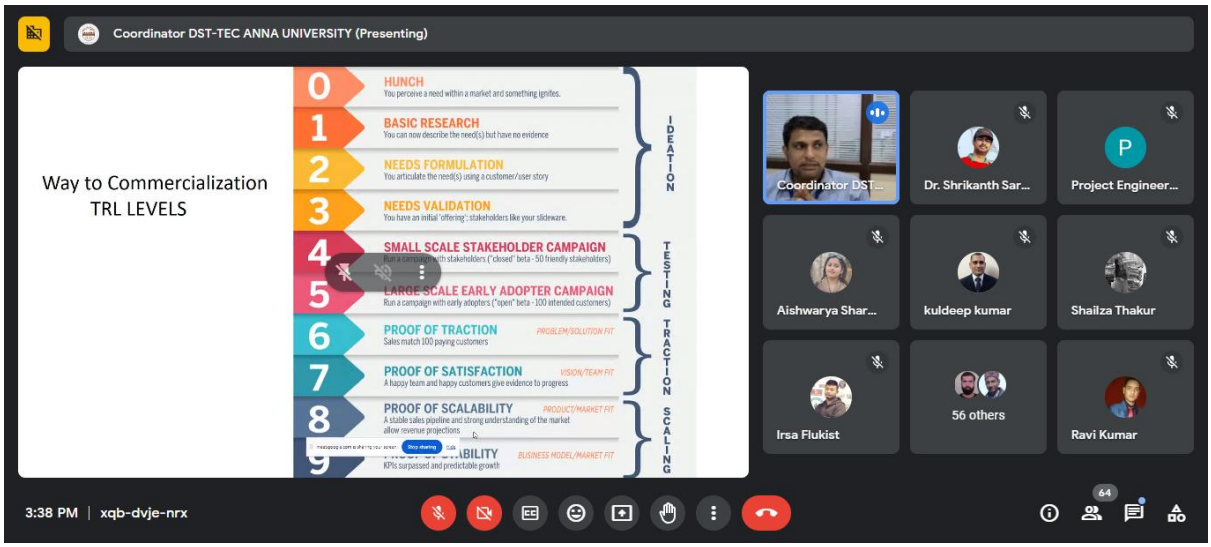
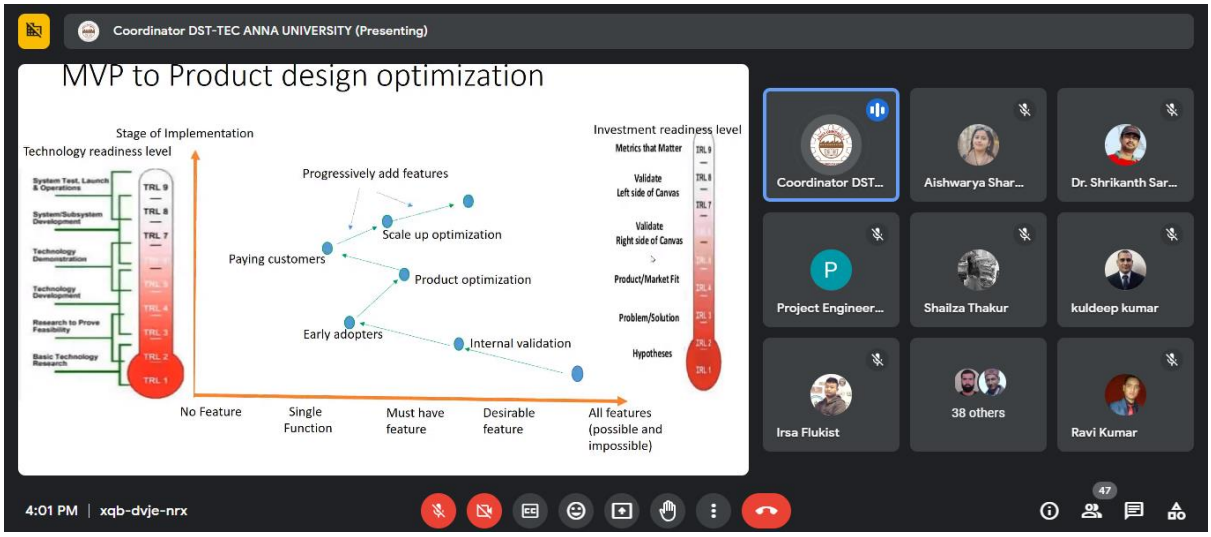
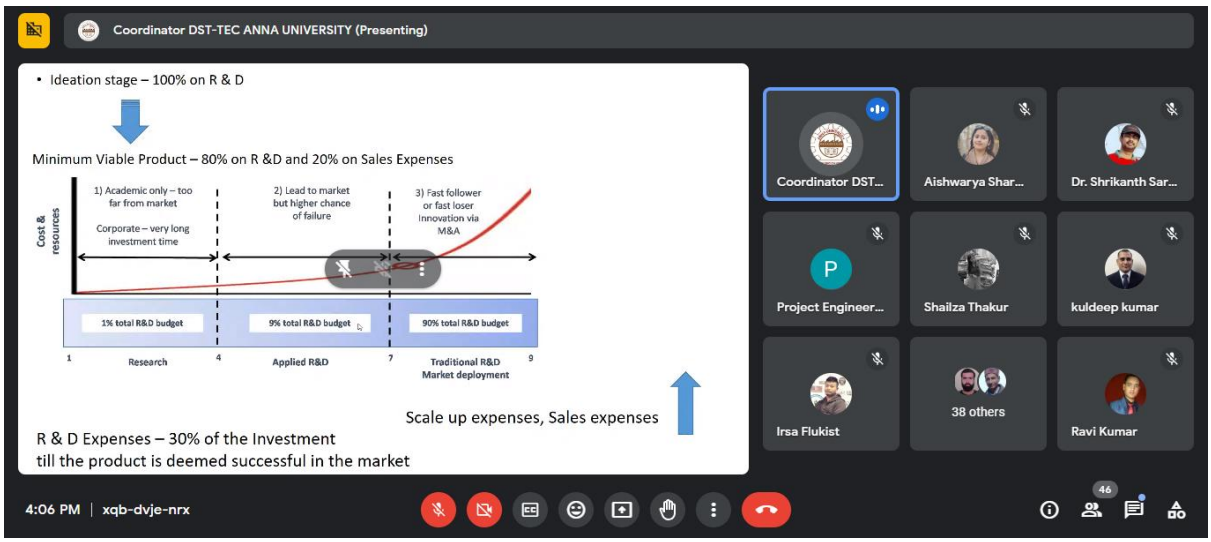
Glimpses of the Expert Talk

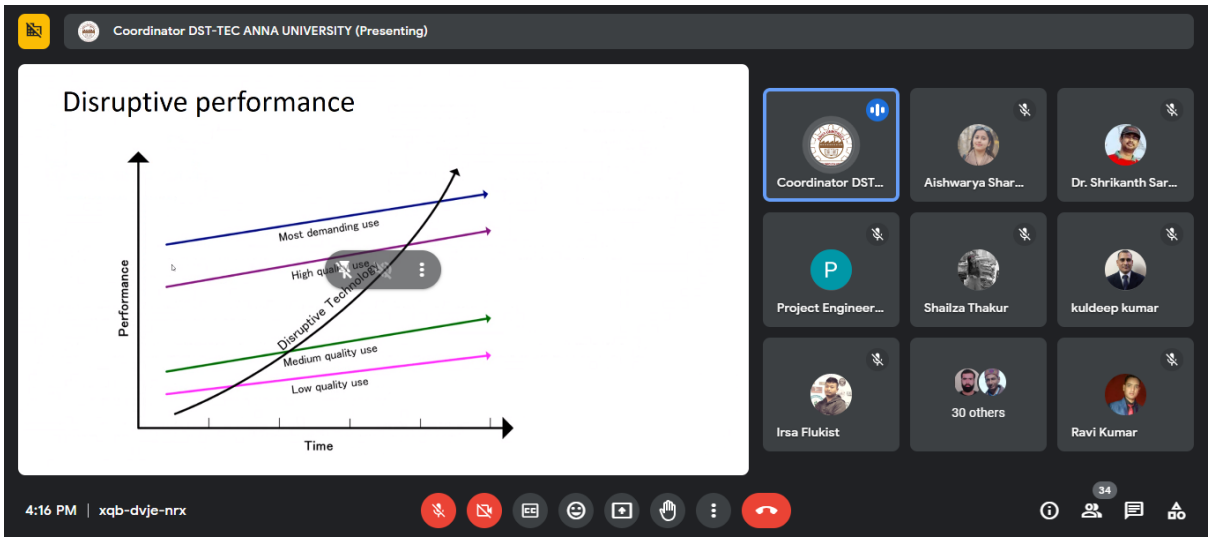




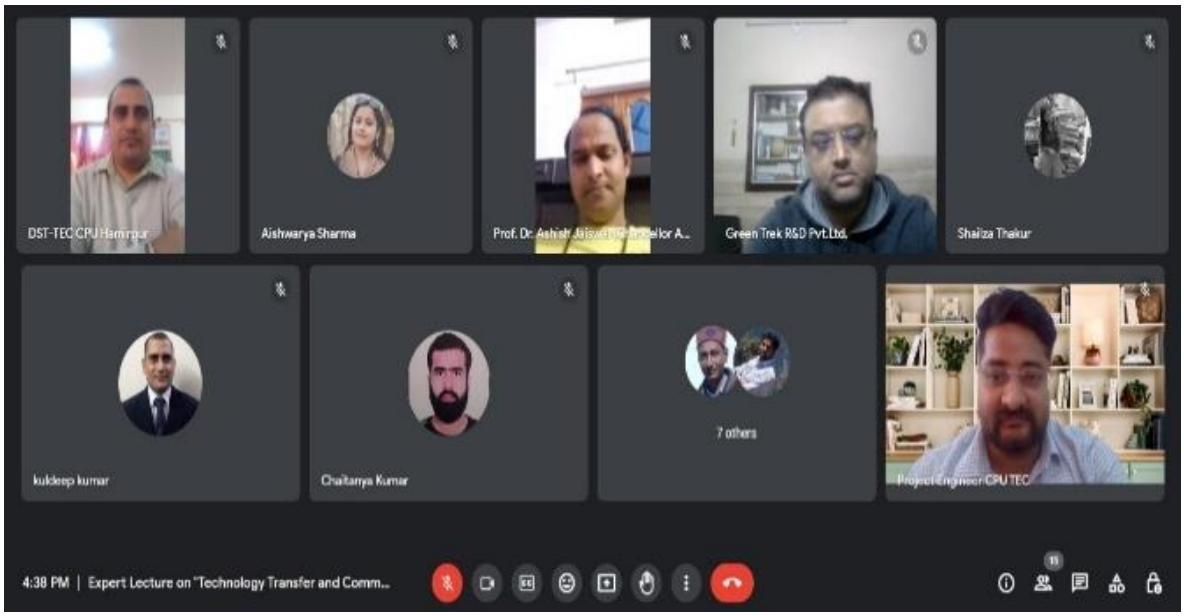

Coordinator DST-TEC ANNA UNIVERSITY (Presenting)
Way to Commercialization
TRL LEVELS
0 HUNCH
You perceive a need within a market and something ignites.
1 BASIC RESEARCH
You can now describe the need(s) but have no evidence
2 NEEDS FORMULATION
You articulate the need(s) using a customer/user story
3 NEEDS VALIDATION
You have an initial 'offering'; stakeholders like your slideware.
4 SMALL SCALE STAKEHOLDER CAMPAIGN
5 LARGE SCALE EARLY ADOPTER CAMPAIGN
Run a campaign with early adopters ("open" beta - 100 intended customers)
6 PROOF OF TRACTION
Sales match 100 paying customers
7 PROOF OF SATISFACTION
A happy team and happy customers give evidence to progress
8 PROOF OF SCALABILITY
A stable sales pipeline and strong understanding of the market allow revenue projections
IDEATION
TESTING
TRACTION
SCALING
Coordinator DST...
Dr. Shrikanth Sar...
Project Engineer...
Aishwarya Shar...
kuldeep kumar
Shailza Thakur
Irsa Flukist
56 others
Ravi Kumar
3:38 PM | xqb-dvje-nrx


Coordinator DST-TEC ANNA UNIVERSITY (Presenting)
MVP to Product design optimization
Stage of Implementation
Technology readiness level
Investment readiness level
Metrics that Matter
Validate Left side of Canvas
Validate Right side of Canvas
Product/Market Fit
Problem/Solution
Hypotheses
Progressively add features
Scale up optimization
Paying customers
Product optimization
Early adopters
Internal validation
No Feature
Single Function
Must have feature
Desirable feature
All features (possible and impossible)
Coordinator DST...
Aishwarya Shar...
Dr. Shrikanth Sar...
Project Engineer...
Shailza Thakur
kuldeep kumar
Irsa Flukist
38 others
Ravi Kumar
4:01 PM | xqb-dvje-nrx


Coordinator DST-TEC ANNA UNIVERSITY (Presenting)
• Ideation stage – 100% on R & D
Minimum Viable Product – 80% on R &D and 20% on Sales Expenses
1) Academic only – too far from market
Corporate – very long investment time
2) Lead to market but higher chance of failure
3) Fast follower or fast loser Innovation via M&A
Cost & resources
1% total R&D budget
9% total R&D budget
90% total R&D budget
1
Research
4
Applied R&D
7
Traditional R&D Market deployment
9
Scale up expenses, Sales expenses
R & D Expenses – 30% of the Investment
till the product is deemed successful in the market
Coordinator DST...
Aishwarya Shar...
Dr. Shrikanth Sar...
Project Engineer...
Shailza Thakur
kuldeep kumar
Irsa Flukist
38 others
Ravi Kumar
4:06 PM | xqb-dvje-nrx


Coordinator DST-TEC ANNA UNIVERSITY (Presenting)
Disruptive performance
Performance
Time
Most demanding use
High quality use
Disruptive Technology
Medium quality use
Low quality use
Coordinator DST...
Aishwarya Shar...
Dr. Shrikanth Sar...
Project Engineer...
Shailza Thakur
kuldeep kumar
Irsa Flukist
30 others
Ravi Kumar
4:16 PM | xqb-dvje-nrx


Coordinator DST...
Aishwarya Shar...
Project Engineer...
Dr. Shrikanth ...
Shailza Thakur
kuldeep kumar
Irsa Flukist
26 others
Ravi Kumar
4:21 PM | xqb-dvje-nrx


Aishwarya Sharma
Green Trek R&D Pvt Ltd.
Shailza Thakur
kuldeep kumar
Chaitanya Kumar
7 others
4:38 PM | Expert Lecture on "Technology Transfer and Comm...

MEDIA COVERAGE

प्रौद्योगिकी हस्तांतरण और व्यवसायीकरण पर हुई ऑनलाइन कार्यशाला

हमीरपुर, 27 अक्तूबर (राजीव): करियर प्वाइंट विश्वविद्यालय के टैक्नोलॉजी इनेवलिंग सैंटर (टी.ई.सी.) के समन्वयक डा. कुलदीप कुमार ने बताया कि टेक द्वारा प्रौद्योगिकी हस्तांतरण और व्यवसायीकरण पर ऑनलाइन कार्यशाला का आयोजन किया गया। इस कार्यक्रम में वक्ता के तौर पर प्रौद्योगिकी व्यवसायीकरण अधिकारी अन्ना विश्वविद्यालय चेन्नई से सी.विग्नेश ने बताया कि प्राइवेट लिमिटेड कंपनियां, इन्कूवेटी, इनोवेटी प्रौद्योगिकी हस्तांतरण और व्यवसायीकरण में विज्ञान, कानून और व्यावसायिक गतिविधियां शामिल हैं, जो सार्वजनिक स्वास्थ्य के लिए फायदेमंद उत्पादों के विकास को बढ़ावा देती हैं।

प्रौद्योगिकी हस्तांतरण वास्तविक दुनिया के उत्पादों के साथ अनुसंधान को जोड़ने कार्य करता है, जो समाज के लिए लाभ और समस्याओं का समाधान प्रदान कर सकता है और साथ ही आय के साधन उत्पन्न कर सकता है जिसका उपयोग आगे के अनुसंधान और विकास को सपोर्ट देने के लिए किया जा सकता है। इस व्याख्यान से व्यावहारिक अनुप्रयोग में नवाचारों से जुड़ी रणनीतियों और चुनौतियों पर अमूल्य अंतर्दृष्टि प्रदान की। उन्होंने बताया कि नवाचार और आर्थिक विकास को बढ़ावा देने के लिए, अकादमिक क्षेत्र से वाणिज्यिक क्षेत्र में प्रौद्योगिकी स्थानांतरित करने में शामिल प्रक्रियाओं की व्यापक समझ होनी चाहिए। किसी भी व्यवसाय को शुरू करने के लिए सबसे पहले हमें उसकी मार्केट में जरूरत को समझ लेना चाहिए और अपने कौशल और जुनून को पहचानते हुए काम करना चाहिए।

टेक के प्रोजैक्ट इंजीनियर पुनित कुमार ने मुख्य वक्ता का धन्यवाद देते हुए बताया कि सी.पी.यू.-टेक में कोई भी व्यक्ति अपने आइडिया, व्यवसाय से जुड़ी हुई समस्या के लिए संपर्क कर सकता है। इस कार्यक्रम में देशभर से 200 से अधिक प्रतिभागियों ने खुद को रजिस्टर्ड करवाया है। इसमें पंजाब विश्वविद्यालय, बुलंदखंड विश्वविद्यालय, एच.पी.यू, एन.आई.टी. हमीरपुर, पी.जी.आई. चंडीगढ़, सी.एस.आई.आर.-आई.एम.टेक चंडीगढ़, डा. वाई.एस. परमार विश्वविद्यालय के प्राध्यापक, वैज्ञानिक, प्रोजैक्ट स्टाफ, शोधार्थी, लद्दाख विश्वविद्यालय व मिजोरम विश्वविद्यालय आदि ने इसमें हिस्सा लिया।

करियर प्वाइंट विवि में प्रौद्योगिकी हस्तांतरण व व्यावसायीकरण कार्यक्रम

सबेरा न्यूज/सुरेश

डिडवीं टिक्कर, 27 अक्तूबर : करियर प्वाइंट विश्वविद्यालय के टेक्नोलॉजी इनेविलंग सेंटर(टीईसी) के समन्वयक डा. कुलदीप कुमार ने बताया कि टेक द्वारा प्रौद्योगिकी हस्तांतरण और व्यावसायीकरण का आयोजन किया गया। इस कार्यक्र म में वक्ता के तौर पर प्रौद्योगिकी व्यावसायीकरण अधिकारी अन्ना विश्वविद्यालय चेन्नई से सी. विग्नेश ने बताया कि प्राइवेट लिमिटेड कंपनियां, इन्कूवेटी, इनोवेटी प्रौद्योगिकी हस्तांतरण और व्यावसायीकरण में विज्ञान, कानून और व्यावसायिक गतिविधियां शामिल हैं, जो सार्वजनिक स्वास्थ्य के लिए फायदेमंद उत्पादों के विकास को बढ़ावा देती हैं। प्रौद्योगिकी हस्तांतरण वास्तविक दुनिया के उत्पादों के साथ अनुसंधान को जोड़ने का कार्य करता है जो समाज के लिए लाभ, समस्याओं का समाधान प्रदान कर सकता है और साथ ही, आय उत्तपन सकता है जिसका उपयोग आगे के अनुसंधान और विकास को स्पोट देने के लिए किया जा सकता है। इस व्याख्यान से व्यावहारिक अनुप्रयोग में नवाचारों से जुड़ी रणनीतियों और चुनौतियों पर अमूल्य अंतर्दृष्टि प्रदान की। आगे उन्होंने बताया कि नवाचार और आर्थिक विकास को बढ़ावा देने के लिए, अकादमिक क्षेत्र से वाणिज्यिक क्षेत्र में प्रौद्योगिकी स्थानांतरित करने में शामिल प्रक्रि याओं की व्यापक समझ होनी चाहिए। यह अनुसंधान प्रगति और उनके वास्तविक विश्व प्रभाव के बीच अंतर को पाटने के लिए उत्प्रेरक के रूप में कार्य करता है। किसी भी व्यवसाय को शुरू करने के लिए सबसे पहले हमें उसको मार्केट में जरूरत को समझ लेना चाहिए और अपने कौशल और जुनून को पहचानते हुए काम करना चाहिए।

करियर प्वाइंट यूनिवर्सिटी में प्रौद्योगिकी हस्तांतरण के गिनाए फायदे

भोरंज। करियर प्वाइंट विश्वविद्यालय के टेक्नोलॉजी इनेवलिंग सेंटर (टीईसी) के समन्वयक डा. कुलदीप कुमार ने जानकारी देते हुए बताया कि टेक द्वारा प्रौद्योगिकी हस्तांतरण और व्यावसायीकरण आयोजन किया गया। इस कार्यक्रम में वक्ता के तौर पर प्रौद्योगिकी व्यावसायीकरण अधिकारी अन्ना विश्वविद्यालय चेन्नई से सी विग्नेश ने बताया कि प्राइवेट लिमिटेड कंपनियां, इन्कूवेटी, इनोवेटी प्रौद्योगिकी हस्तांतरण और व्यावसायीकरण में विज्ञान, कानून और व्यावसायिक गतिविधियां शामिल हैं, जो सार्वजनिक स्वास्थ्य के लिए फायदेमंद उत्पादों के विकास को बढ़ावा देती हैं। प्रौद्योगिकी हस्तांतरण वास्तविक दुनिया के उत्पादों के साथ अनुसंधान को जोड़ने का कार्य करता है।