

Søknad om midler til studiekvalitetsfremmende tiltak	
Prosjektnavn:	Idea Factory
Prosjekteier (institutt, fakultet.):	Department of Industrial Engineering
Stuedsted:	Narvik
Prosjektleder:	Hao Yu
Prosjektperiode er studieåret 2020/2021	
Søknadssum:	180,000 NOK
Bakgrunn	
	<p>Industrial Engineering is about to see "the big picture" when one is dealing with complex processes, systems, or organizations. The field focuses on analyzing and optimizing the many 'wheels' that work together so that an organization is able to function in the most efficient and effective way.</p> <p>Master Program of Industrial Engineering at UiT provides a well-combined course portfolio in order to provide students with extensive knowledge in both engineering technology and management science.</p> <p>Through analysis of the result from the Studiebarometeret and student survey, we found the most students are satisfied with the quality and combination of the courses. However, three main recommendations were suggested to improve the quality of education at the master program:</p> <ol style="list-style-type: none"> 1. Students wish to have a more interesting and active way to practice their knowledge from class in the real world, for example, the design thinking, innovative logistics solutions, etc. 2. Students suggest an enhancement between the knowledge from class and their applications in industry and R&D activities. Simply to say, the students have a good command of knowledge, but they are somehow unsure about how to use the knowledge in their future works. 3. Master Program of Industrial Engineering adopts an intensive teaching mode and one subject is completed within two weeks. Besides, the master courses are at higher level of difficulty. Some first-year master students may need more helps to follow the master study at the beginning and experiences from faculties and second year students will thus be helpful.
Hensikt	
	<p>The purpose of the Idea Factory project is to improve the overall quality and student satisfaction at Master Program of Industrial Engineering through the following aspects:</p> <ul style="list-style-type: none"> • Establish an active and more interesting learning environment for innovation, idea generation, prototyping and testing • Enhance the connection between research-based education and industrial application and R&D activities • Provide more helps for first-year master students both academically and personally
Mål	
<i>Målene formuleres slik at de er spesifikke, målbare,</i>	The project aims at achieving the following goals:

<p>aksepterte, tids- og kostnadseffektive og enkle.</p>	<ol style="list-style-type: none"> WP1: the first goal of the project is to establish a physical idea factory where some entry-level devices, e.g., 3D printer, drone and VR set, will be placed, connected to the computers and internet, and managed and used directly by the student. Through which the knowledge learned from the class can be easily practiced in a more interesting way. The innovative ideas from the students can be easily tested. For example, the innovative product design can be prototyped; the innovative logistics solutions (e.g. delivery with drone, training with VR), and so forth. WP2: the second goal is to host regular seminar/workshop per month with coffee and snacks or pizza, where industrial practitioners and/or researchers will be invited to give lectures. This aims at bridging the gap between the knowledge from class and industrial applications so that the students will be better prepared for their future works. Furthermore, this will also enhance the communications among students, faculties and industrial partners. WP3: the third goal is to host a competition among several groups of master students in the spring semester of 2021, which focuses on the application of industrial engineering in solving a real-world challenge. WP4: the fourth goal it for the support of evens like conferences, visit of industrial partners as well as other events for promoting the students' involvement in industrial cooperation and research activities. WP5: project management <p>Project Gantt Chart:</p> <table border="1"> <thead> <tr> <th rowspan="2">WP</th> <th colspan="3">2020</th> <th colspan="8">2021</th> </tr> <tr> <th>08</th> <th>09</th> <th>10</th> <th>11</th> <th>12</th> <th>01</th> <th>02</th> <th>03</th> <th>04</th> <th>05</th> <th>06</th> </tr> </thead> <tbody> <tr> <td>WP1</td> <td colspan="6">█</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>WP2</td> <td colspan="12">█</td> </tr> <tr> <td>WP3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td colspan="5">█</td> <td></td> </tr> <tr> <td>WP4</td> <td></td> <td></td> <td colspan="9">█</td> <td></td> </tr> <tr> <td>WP5</td> <td colspan="12">█</td> </tr> </tbody> </table>	WP	2020			2021								08	09	10	11	12	01	02	03	04	05	06	WP1	█												WP2	█												WP3							█						WP4			█										WP5	█											
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<p>Hvilket og på hvilken måte passer prosjektet til kriteriegrunnlaget for studiekvalitets-fremmende tiltak? I hvilken grad og på hvilken måte har prosjektet overføringsverdi til UiT forøvrig?</p>	<p>Based on the students' feedback, the Idea Factory project aims to improve the quality of education of the Master Program of Industrial Engineering. The target of the project is to improve the study program's performance with respect to criteria 1 and 2 by providing a more dynamic and interesting learning environment, enhanced connection between knowledge and application, as well as the better support of first-year master students with more academic and social events.</p> <p>From the perspective of value transfer to the whole university, this projects aims at the following aspects:</p> <ul style="list-style-type: none"> The Idea Factory project may provide a showcase for innovative teaching and learning, which can be adopted by many other disciplines in UiT to improve the quality of education. The Idea Factory may be used by other study programs at UiT and the seminars may also be open to the students from other study programs at UiT 																																																																																								

Forventede resultater

	<p>In the Idea Factory project, the expected results include:</p> <ol style="list-style-type: none"> 1. The establishment of a more interesting and dynamic environment for learning and innovation at Master Program of Industrial Engineering 2. Improving the performance of the study program in the Studiebarometeret 3. Document and share the experience from the project
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Budsjett

<p><i>Midler skal benyttes til studentretta tiltak. Midler kan ikke benyttes til å dekke ansattes utgifter der studenter ikke deltar. Ubenyttede midler, ikke dokumenterte brukte midler og/eller midler som ikke er brukt i henhold til tildelingen skal tilbakeføres til sentral pott.</i></p>	<p>The budget of the project is given as follows:</p>		
	Items	Descriptions	Budget
	Equipment (WP1)	Purchasing costs of the entry-level devices for the Idea Factory	80,000 NOK
	Materials (WP1)	Consumables for the operations of the Idea Factory	30,000 NOK
	Seminar (WP2)	Costs of coffee and snacks/pizza for the monthly seminars	10,000 NOK
	Competition (WP3)	Support for student groups and awards for winners	10,000 NOK
Support for event (WP4)	Support for events like conference, industry visit and so forth.	50,000 NOK	

Lengden på søknaden skal ikke overskride tre A4 sider.
 Søknad oversendes til Seksjon for forsknings- og utdanningskvalitet i ePhorte med referanse 2020/542