



Design in the Light of Light New Challenges - New Solutions

5. International CEEPUS Winter School Design Week 2016

Design v luči svetlobe

Novi izzivi - nove rešitve

5. mednarodna CEEPUS zimska šola Design Week 2016

DESIGN V LUČI SVETLOBE – NOVI IZZIVI – NOVE REŠITVE

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DESIGN IN THE LIGHT OF LIGHT – NEW CHALLENGES – NEW SOLUTIONS

5th International CEEPUS Winter School Design Week 2016

Urednica / Edited by: Jelka GERŠAK

Oblikovanje in prelom / Design and page layout: Tadeja PENKO, Jasmin KALJUN

Lektura / Proofreading English language: Mrs. Shelagh Hedges

Fotografije / Photographs: Tadeja PENKO, Gregor HARIH

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Vsebina / Contents

Uvodne besede / Preface	iv
5. mednarodna CEEPUS zimska šola Design Week 2016	2
5 th International CEEPUS Winter School Design Week 2016	3
 Predavanja / Lectures	
Svetloba in design / Light & Design	6
Fotografija - vizualna umetnost pripovedovanja zgodb / Photography - Visual Art of Art of Storytelling	8
Moda in svetloba: tehnologija, design in telo / Fashion and Light: Technology, Design and the Body	10
Oblikovanje oblačil iz jelenove kože / Clothing Design Workshops with Reindeer Skin	12
Svetloba in tehnologija / Light & Technology	14
Kako oblikovati portfolio? / How to Design a Portfolio?	16
Oblikovanje oblačil z uporabo 3-D programa Modaris / Clothing Design with 3D Modelling Program Modaris	18
Notranji sijaj materiala / Internal Shine of Material	20
Vlakno in svetloba / Fiber and Light	22
 Delavnice / Workshops	
Svetlo-temno / Light-Dark	26
Moda v luči tehnologije / Fashion in the Light of Technology	28
Igra svetlobe / The Play of the Light	30
Orodja za 3-D modeliranje oblačil / 3D Modelling Tools Helping the Clothing Design Process	32
Fotografija – risanje s svetlobo / Photography - Painting with Light	34
Portfolio / Portfolio	36
Transparentnost / Transparency	38
Raziskava transparentnosti bele materije na primeru male bele obleke	39
Study of White Matter's Transparency in the Case of Small White Dress	39
 Razstave / Exhibitions	
Kontrasti / Contrasts	42
Living Memory - Digital Future	44
Design in the Light of Light - New Challenges - New Solutions	46
Študiraj z nami / Study with us	48

Uvodne besede

Začetki mednarodne CEEPUS zimske šole *Design Week* segajo v leto 2012, ko je bil zasnovan koncept zimske šole, katere namen je pokriti spekter sodobnega inženirskega oblikovanja oblačil in/ali drugih tekstilnih form v najširšem smislu, vključujoč tesno povezana področja, kot so: umetnost, teorije barve in svetlobe, teorija mode, fotografija, pametni in inteligentni materiali, nosljive računalniške tehnologije, človek – oblačilo, ergonomija toplotnega okolja in inovativnost.

Cilj tako zasnovanega interdisciplinarnega koncepta zimske šole, kot interakcije različnih disciplin, je združiti znanstvene in umetniške discipline in povezati kreativnost študentov z različnih univerz in iz različnih dežel, kjer se študenti v okviru predavanj in širokega izbora ciljno zasnovanih delavnic soočijo s teoretičnimi in praktičnimi vidiki oblikovanja v najširšem smislu. Pri tem so ključnega pomena široka odprtost različnim disciplinam, ki omogoča interakcijo med znanostjo, umetnostjo in družbo, razvoj novih idej in aplikacijo teh v realnem okolju.

Odprtost različnim disciplinam je prihajala do izraza skozi tematike posameznih zimskih šol. Tako je tematika *Design kot gonilo k ljudem usmerjenih inovacij* združevala vsebine druge mednarodne CEEPUS zimske šole, katere aktivnosti so bile usmerjene v razvoj inteligentnih oblačil, ki sledijo razvoju generacije novih oblačil, in v iskanje tradicionalnih vrednot oblačil in kulturne dediščine. *Novi izzivi za inovativne rešitve*, kot odsev globalnih trendov mode 21. stoletja, so bili teoretična in motivacijska podlaga za izvedbo kreativnih delavnic (*Time Puzzle*, *Kolektivni vzorec*, *Funkcionalna oblačila*, *Inteligentna oblačila*, *Use–Reuse*, *Svetloba in prostor*, *Tekstilni miniaturni objekt*) tretje mednarodne zimske šole, medtem ko je udeležence četrte mednarodne zimske šole *Design Week 2015* povezoval moto *Novi izzivi – nove ideje – nove rešitve*, ki so skozi vzporedno potekajoče interdisciplinarno

zasnovane kreativne delavnice (*Črno belo*, *Inteligentna funkcionalna oblačila*, *Oblikovanje trajnosti*, *Slovenski pogrinjki*, *Ena dimenzija – neskončno možnosti*, *Portfolio*, *Kako izdelati knjigo*, *Autoportret / portret: moje / tvoje tekstilno telo*) razvijali kolektivno filozofijo razvoja ideje, kot ključnega elementa pri iskanju novih rešitev.

Tematika letošnje pete mednarodne CEEPUS zimske šole *Design Week 2016*, ki se je odvijala pod motom *Design v luči svetlobe – novi izzivi – nove rešitve*, je ponovno potrdila široko odprtost različnim disciplinam.

Rezultati so pokazali, da programi dosedanjih interdisciplinarno zasnovanih mednarodnih CEEPUS zimskih šol *Design Week*, značilni po široki odprtosti različnim disciplinam in osredotočeni na razvijanje kolektivne filozofije razvoja ideje, kot ključnega elementa pri iskanju novih rešitev ali drugih ciljev, imajo pozitiven in pomemben vpliv na znanje in spretnosti udeležencev.

V katalogu *Design in the Light of Light – New Challenges – New Solutions*, ki je nastajal v okviru delavnice *Portfolio* ob sodelovanju udeležencev delavnice *Fotografija – risanje s svetlobo*, ki so sooblikovali portrete predavateljev in moderatorjev delavnic, je podan oris aktivnosti pete mednarodne CEEPUS zimske šole *Design Week 2016*.

Red. prof. dr. sc. Jelka Geršak
v imenu CEEPUS zimske šole Design week

Preface

The very beginnings of the International CEEPUS Winter School *Design Week* goes back to 2012, when the concept of the Winter School was conceived. Its aim is to cover the whole spectrum of modern engineering design, clothing and/or other textile forms in the broadest sense, including the closely related areas, such as: Art, colour/light theory, fashion theory, photography, smart and intelligent materials, wearable computer technology, human-clothing systems, ergonomics of the thermal environment and innovativeness.

The aim of this interdisciplinary concept of a Winter School, which can be understood as the interaction of different disciplines, is to combine scientific and artistic disciplines and connect the creativity of students from different universities and from various countries. In the framework of lectures and a wide range of targeted Workshops, the students dealt with the theoretical and practical aspects of design in the broadest sense. Here, a broad openness to different disciplines was required, which allowed interaction between science, art and society, the development of new ideas and their application in a real environment.

Openness to different disciplines was expressed through the topics of each of the performed Winter Schools. Thus, the theme of *Design as a driving force towards people-centred innovation* integrated the contents of the second International CEEPUS Winter School, whose activities were aimed at the development of intelligent garments that follow the development of the new generation of clothing and in a search for the traditional values and cultural heritage of clothes. *New challenges for innovative solutions*, as a reflection of global trends in the fashion of the 21st century, were the theoretical and motivational bases for the implementation of creative Workshops (*Time Puzzle*, *Collective sample*, *Functional garments*, *Intelligent clothing*, *Use – Reuse*, *Light and space*, *Textile*

miniature object) of the 3rd International Winter School. The participants of the 4th International Winter School *Design Week 2015* were linked by the motto *New Challenges – New Ideas – New Solutions* through parallel interdisciplinary conceived creative Workshops (*Black white*, *Intelligent functional clothing*, *Designing sustainability*, *Slovenian table covers*, *One dimension – endless possibilities*, *Portfolio*, *How to make a book*, *Auto portrait / Portrait: My / your textile body*) in order to develop a collective philosophy of the development of ideas, as a key element in the search for new solutions.

The topic of this year's fifth International CEEPUS Winter School *Design Week 2016*, which took place under the motto *Design in the Light of the Light – New Challenges – New Solutions*, reaffirmed again the wide openness to different disciplines.

The results have shown that the programmes of previous interdisciplinary-based International CEEPUS Winter Schools *Design Week*, characterised by wide openness to different disciplines and focused on developing a collective philosophy of the development of ideas, as an important element in the search for new solutions or other objectives, have a positive and significant impact on the knowledge and skills of the participants.

The catalogue *Design and the Light of Light – New Challenges – New Solutions*, which was designed in the framework of the Workshop Portfolio with the collaboration of participants of the Workshop Photograph - drawing with light, who co-created the portraits of lecturers and moderators of Workshops, provides an outline of activities of the 5th International CEEPUS Winter School *Design Week 2016*.

Prof. Dr. Sc. Jelka Geršak
on behalf of Winter School Design week



Peta mednarodna CEEPUS zimska šola Design Week 2016
5th International CEEPUS Winter School Design Week 2016



Udeleženci pete mednarodne CEEPUS zimske šole Design Week 2016
Participants of 5th International CEEPUS Winter School Design Week 2016

5. mednarodna CEEPUS zimska šola Design Week 2016

Mednarodna CEEPUS zimska šola *Design Week 2016* je potekala od 16. 10. 2016 do 22. 10. 2016 na Fakulteti za strojništvo Univerze v Mariboru v organizaciji Raziskovalno-inovacijskega centra za design in oblačilno inženirstvo, ob dotaciji Ministrstva za izobraževanje, znanost in šport, Centra RS za mobilnost in evropske programe izobraževanja in usposabljanja (CMEPIUS).

Design v luči svetlobe – novi izzivi – nove rešitve je moto, ki je povezoval udeležence letošnje že pete mednarodne CEEPUS zimske šole, ki je združila znanstvene in umetniške discipline in povezala kreativnost študentov z različnih univerz in dežel. Ti so skozi vzporedno potekajoče interdisciplinarno zasnovane kreativne delavnice (*Svetlo-temno, Moda v luči tehnologije, Igra svetlobe, Orodja za 3-D modeliranje oblačil, Portfolio, Fotografija – risanje s svetlobo, Transparentnost, Raziskava transparentnosti bele materije na primeru male bele obleke*) razvijali kolektivno filozofijo razvoja ideje, kot pomembnega elementa pri iskanju novih rešitev.

Na mednarodni CEEPUS zimski šoli je aktivno sodelovalo 81 udeležencev, in sicer 40 tujih študentov iz 9 različnih univerz iz 6 držav (Hrvaške, Slovaške, Češke, Srbije, Bosne in Hercegovine in Romunije), 25 študentov s Katedre za tekstilne materiale in oblikovanje ter 6 študentov s Katedre za konstruiranje in oblikovanje Fakultete za strojništvo Univerze v Mariboru in 10 dijakov Srednje šole za storitveno dejavnost in logistiko Celje.

Pri izvedbi mednarodne zimske šole je sodelovalo več priznanih tujih in domačih strokovnjakov, kjer se lahko izpostavijo: prof. Anu Kylmanen in prof. Päivi Rautajoki z Oddelka za oblikovanje tekstilij in oblačil na Fakulteti za umetnost in design Univerze v Laplandu, Finska, red. prof. Karin Košak z Naravoslovnotehniške

fakultete Univerze v Ljubljani, izr. prof. Andrea Pavetić s Tekstilno-tehnološke fakultete Sveučilišta v Zagrebu, doc. Maria Fulkova in mag. Jaroslava Frajova z Oddelka za oblikovanje tekstilij na Akademiji za likovno umetnost in oblikovanje v Bratislavi, doc. mag. Kiki Klimt iz Ljubljane, dr. sc. Željko Knezić in Petra Krpan, mag. ing. s Tekstilno-tehnološke fakultete Sveučilišta v Zagrebu in drugi, kar je pomembno prispevalo h kakovosti mednarodne zimske šole.

Kot pomemben dosežek pete mednarodne CEEPUS zimske šole se lahko izpostavi poleg številnih novih idej in rešitev tudi izdelava prototipa svečane inteligentne ženske obleke z vgrajenimi svetlobnimi učinki. Oblačilo je odraz sooblikovanja harmonije mode in tehnologije, tj. v oblačilo integriranih miniaturnih elektronskih komponent, ki omogočajo posebne funkcijske učinke, zasnovane na razvoju lastnih aplikacij.

Letošnjo mednarodno CEEPUS zimsko šolo je zaznamovala specifična, izredno bogata struktura udeležencev, ki je z izobraževalnega vidika vključevala študente različnih diplomskih in podiplomskih študijskih programov na eni strani ter študente podiplomskih doktorskih študijskih programov, prvič pa so v okviru mednarodne CEEPUS zimske šole aktivno sodelovali tudi dijaki srednje šole in njihovi spremljevalci.

Ob uspešnem zaključku se želim zahvaliti vsem, študentov, ki ste se aktivno, idejno tvorno vključili v delavnice, kot tudi vsem tujim in domačim strokovnjakom ter sodelavcem Raziskovalno-inovacijskega centra za design in oblačilno inženirstvo, ki ste prispevali k realizaciji in uspehu mednarodne CEEPUS zimske šole *Design Week 2016*.

Red. prof. dr. sc. Jelka Geršak
Vodja CEEPUS zimske šole Design week 2016

5th International CEEPUS Winter School Design Week 2016

The International CEEPUS Winter School *Design Week 2016* took place from 16. 10. 2016 to 22. 10. 2016 at the Faculty of Mechanical Engineering, University of Maribor. It was organised by the Research and Innovation Centre for Design and Clothing Science, with a grant from the Ministry of Education, Science and Sport, The Centre of the Republic of Slovenia for Mobility and European Educational and Training Programmes (CMEPIUS).

Design in the Light of Light, New Challenges – New Solutions was the motivation that connected this year's participants. Winter School *Design Week 2016* brought together scientific and artistic disciplines and connected the creativity of students from different universities and countries. Winter School participants developed through interdisciplinary designed creative Workshops (*Light–Dark, Fashion in the light of technology, The play of the light, 3D modelling tools helping the clothing design process, Portfolio, Photography – painting with light, Transparency, Study of white matter's transparency in the case of small white dresses*) a collective philosophy of ideas, as a key element in the search for new solutions.

The CEEPUS Winter School was attended by 81 participants, 40 foreign students from 9 different universities from 6 countries (Croatia, Slovakia, the Czech Republic, Serbia, Bosnia and Herzegovina and Romania), 25 students from the Department of Textile Materials and Design, 6 students from the Department of Engineering Design at the Faculty of Mechanical Engineering, University Maribor, as well as 10 students from secondary schools.

Realization of the International Winter School involved renowned foreign and domestic experts, including: Prof. Anu Kylmanen and Prof. Päivi Rautajoki from the Faculty of Art and Design University of Lapland,

Finland, Prof. Karin Košak from the Faculty of Natural Sciences and Engineering, University of Ljubljana, Assoc. Prof. Andrea Pavetić from the Faculty of Textile Technology, University of Zagreb, Croatia, Assist. Prof. Maria Fulkova and Mgr. Jaroslava Frajova, from the Academy of Fine Arts and Design in Bratislava, Slovakia, Mag. Kiki Klimt from Ljubljana, Dr. Sc. Željko Knezić and Petra Krpan, MA from the Faculty of Textile Technology, University of Zagreb, Croatia, and others.

As an important achievement of the International CEEPUS Winter School we can highlight, from many new ideas and solutions, the prototype of an intelligent fest dress with built-in lighting effects. The garment is a reflection of the co-harmony of fashion and technology, that fits into the garment integrated miniaturized electronic components that allow specific functional effects, based on the development of their own applications.

The 5th International CEEPUS Winter School was marked by a specific, extremely rich structure of participants. From an educational aspect, the event involved students of different undergraduate and postgraduate programmes, as well as students of postgraduate doctoral studies. For the first time, the CEEPUS Winter School also attended actively by students and their attendants from secondary schools.

At the end of its successful completion, I would like to thank all of the students that were included actively and constructively in the Workshops, all foreign and domestic experts and the team of the Research and Innovation Centre for Design and Clothing Science, who have contributed to the success of the international CEEPUS Winter School *Design Week 2016*.

Prof. Dr. Sc. Jelka Geršak
Head of CEEPUS Winter School, Design Week 2016

Predavanja

Design v luči svetlobe

Lectures

Design in the Light of Light

O predavatelju

Prof. Karin Košak, kostumografinja, scenografinja, oblikovalka svetlobe. Študirala je na Fakulteti za arhitekturo Univerze v Ljubljani in na Akademiji uporabnih umetnosti na Dunaju. Oblikovala je kostume za številna gledališča in operne hiše v Sloveniji, Avstriji in Švici. Kot oblikovalka razsvetljave je izdelala načrte za zunanjo osvetlitev mesta in praznično osvetlitev mestnega jedra za mesta, kot so Ljubljana, Koper, Piran, Portorož, Bled... Od leta 1998 predava oblikovanje in kostumografijo na Katedri za oblikovanje tekstilij in oblačil na Naravoslovnotehniški fakulteti Univerze v Ljubljani.



About the Lecturer

Prof. Karin Košak, costume, stage and light designer, studied at the Faculty for Architecture in Ljubljana and the Academy of Applied Arts in Vienna. She has designed costumes and sets for many theatres and opera houses in Slovenia, Austria and Switzerland. As a light designer she has developed plans for exterior and city lighting for everyday and festivities for cities such as Ljubljana, Koper, Piran, Portorož, Bled... Since 1998 she has teaching Design and Costumes at the University of Ljubljana.

Prof. Karin Košak

Univerza v Ljubljani | Naravoslovnotehniška Fakulteta

University of Ljubljana | Faculty of Natural Sciences and Engineering

Svetloba in design

Light & Design

Predavanja poskušajo odgovoriti na vprašanje, kakšne priložnosti prinaša oblikovanje s svetlobo. Predstavljena je uporaba svetlobe in načrt v zunanosti, s poudarkom na Festivalu svetlobe v Lyonu v Franciji.

Dalje so podane osnovne informacije o teoriji svetlobe - virih, temperaturi, nosilcih, novih tehnologijah in materialih kot so LED in optična vlakna.

Kot eksperimentalni del je predstavljen projekt Tekstilna svetila za Arcadia, kjer so študenti ustvarili inovativna svetila kot izdelek slovenskega znanja in izdelave. Opredelili so lastna idejna izhodišča, cilje in navdih za svojo lastno zgodbo svetila, za katero so pripravili risbe, oblikovalske skice in izdelali prototipe za kolekcijo tekstilnih svetilk. Predstavitev prototipov svetil je navdihnila in spodbudila študente k videnju novih možnosti tekstilnega oblikovanja.

The lecture tried to answer the question “What opportunities does designing with the light bring us?”. It presented the use of light and projections in the exterior, especially the Light Festival in Lyon, France.

The students got basic information about light theory – sources, temperatures, beams and new technologies and materials, such as LED and fiber optics.

As an experimental part, the project Textile Lamps for Arcadia was presented, where students had to create innovative lamps as the product of Slovenian knowledge and manufacturing. They had to set up their own starting points, goals and inspiration for their own light story and produced drawings, design sketches and prototypes for a collection of textile lamps. The presentation of prototypes of lamps should inspire and encourage the students to see new possibilities in textile design.





O predavatelju

Gregor Harih je raziskovalec in asistent z doktoratom na Fakulteti za strojništvo Univerze v Mariboru. Njegovo raziskovalno delo je v zadnjem času osredotočeno na numerične simulacije gibanja in oprijema 3-D modela človeške roke, zgrajenega na osnovi medicinskih slik. S pomočjo simulacij razvija nove materiale na osnovi bioinspiracije, ki omogočajo kontrolirano deformacijo in s tem zmanjšujejo velike lokalne kontaktne tlake, kar zmanjšuje tudi nevarnost za nastanek akutnih in kumulativnih obolenj.

About the Lecturer

Gregor Harih is a Researcher with a PhD degree at the Faculty of Mechanical Engineering, University of Maribor. His research has recently focused on numerical simulations of the hand grip using a 3D model of a fingertip based on medical images. Using the simulations, he develops new intelligent materials based on bioinspiration, which allow controlled deformation and, thus, reduce the high local contact pressure, which reduces the risk of the occurrence of acute or cumulative trauma disorders.

Dr. Gregor Harih
Univerza v Mariboru | Fakulteta za strojništvo
University of Maribor | Faculty of Mechanical Engineering

Fotografija – vizualna umetnost pripovedovanja zgodb
Photography – Visual Art of Art of Storytelling

Fotografija je vizualna umetnost pripovedovanja zgodb, kjer fotograf pri opazovalcu fotografije poskuša vzbuditi čustva.

Fotografija je narejena s pomočjo svetlobe in ne filma oziroma fotografskega senzorja, zato mora fotograf najti oziroma ustvariti najboljšo možno luč za ustvarjanje najboljših fotografij. Da je to mogoče, mora fotograf videti svetlobo in razumeti njeno fizikalno in čustveno naravo.

Photography is the visual art of storytelling where the photographer tries to evoke emotions inside the viewer.

A photograph is made by light, not the film or a camera sensor; therefore, the photographer has to find or create the best possible light to create great photos. To do that the photographer has to see the light, to understand its physical and emotional nature.





O predavatelju

Petra Krpan je rojena 1985 leta v Zagrebu. Zaključila je dodiplomski študij Modnega oblikovanja in magistrski študij Teorije mode na Tekstilno-tehnološki fakulteti Univerze v Zagrebu. Na London College of Fashion se je izobraževala na področju modnega novinarstva in modnih medijev. Zaposlena je kot asistentka na Tekstilno-tehnološki fakulteti Univerze v Zagrebu za področje oblikovanja in novih medijev, sociologije mode in teorije mode. Zaključuje doktorski študij na Fakulteti za humanistične in družbene vede v Zagrebu.

About the Lecturer

Petra Krpan was born in Zagreb, Croatia in 1985. She completed her education at the University of Zagreb Faculty of Textile Technology, BA Fashion Design and MA Fashion Theory, and at the London College of Fashion with an emphasis on Fashion Journalism and Fashion Media Business. She works as an assistant at the University of Zagreb, Faculty of Textile Technology, teaching Fashion and New Media, Fashion Sociology, Fashion Theory. She is about to complete her PhD study at the Faculty of Humanities and Social Sciences in Zagreb.

Petra Krpan, Mag. Ing. Des. Text.

Univerza v Zagrebu | Tekstilno-tehnološka fakulteta | Hrvatska

University of Zagreb | Faculty of Textile Technology | Croatia

Moda in svetloba: tehnologija, design in telo

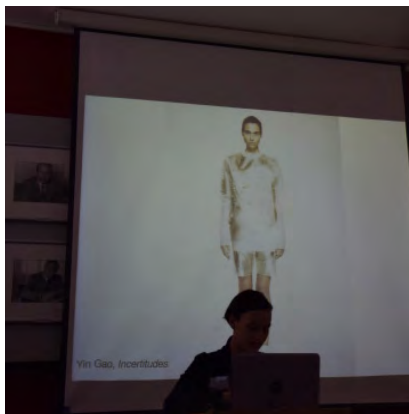
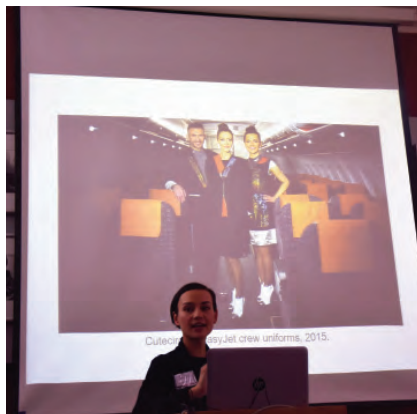
Fashion and Light: Technology, Design and the Body

Modno oblikovanje se je povsem spremenilo, odkar imajo novi mediji vpliv tako na modno oblikovanje kot na telo. Kakorkoli, svetloba je del ustvarjalnega procesa že od leta 1980. Ta je bila uvedena s pomočjo popularne kulture, predvsem glasbe in umetnosti. Postopoma se je svetloba premikala od svetlobnih predstav do svetlobnih teles. Svetloba, kot tehnološki element pri oblikovanju postaja vse bolj umetniška in moda vse bolj tehnološka. Telo sodobne mode znotraj tehnologije in razsvetljave pridobiva nove izkušnje in možnosti.

Namen prispevka *Moda in svetloba: tehnologija, design in telo* je dojeti pomen (odnos) med tehnologijo in modo kot tudi kako se spreminja telo v številnih oblikah.

Fashion design has been transformed completely since new media have had impact on both fashion design and the body. Light, however, has been a part of the creative process since the 1980's. This has been introduced through popular culture, especially music and art. Gradually, light has shifted from light shows to lighting bodies. Light, as a technological element in design, has become more and more artistic, and fashion more technological. The body of contemporary fashion within technology and illumination gains new experiences and possibilities.

The aim of the lecture *Fashion and Light: Technology, Design and the Body* was to grasp the relevance between technology and fashion and how the body alters in many forms.





O predavatelju

Anu Kylmanen
Universitetni učitelj za področje oblikovanja oblačil
Znanstveno področje: Visualna umetnost in design
Aktivnosti: Arktična modna revija - Arktični karnival
Fakulteta za umetnost in oblikovanje
Univerza v Laplandu
www.ulapland.fi

About the Lecturer

Anu Kylmanen
University teacher: Clothing design
Field of science: Visual arts and design
Activities: Arctic Fashion Show - Arctic Carnival
Faculty of Art and Design
University of Lapland
www.ulapland.fi

Prof. Anu Kylmänen

Univerza v Laplandu | Fakulteta za umetnost in oblikovanje | Finska

University of Lapland | Faculty of Art and Design | Finland

Oblikovanje oblačil iz jelenove kože

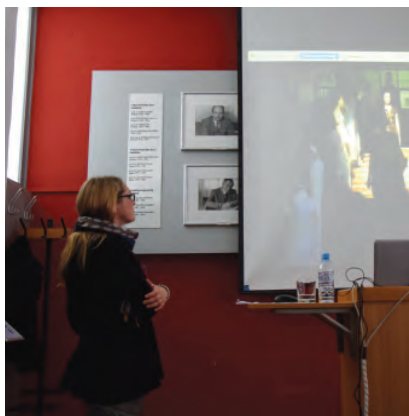
Clothing Design Workshops with Reindeer Skin

Tema predavanja je bila CIRRUS IP *Tradicije in inovacije*, predstavitev delavnice o razvoju trajnostne rabe severnih jelenov. Kako uporabiti vse dele jelenove kože? Poskušali so uporabiti vse dele jelenjadi (kožo, kosti in rogove).

Fakulteta za umetnost in oblikovanje Univerze v Laplandu je gostila Cirrus IP delavnico, katere aktivnosti so potekale v dveh skupinah, to sta: oblikovanje oblačil in inovativni izdelki. V procesu oblikovanja je bila uporabljena t.i. servisna metoda oblikovanja (metoda, kjer ima uporabnik možnost vpliva na proces oblikovanja). Delavnica je obsegala predavanja, obiske, kot tudi delo v skupinah s končnimi predstavitvami. Izveden je bil brainstorming idej v storitveno inovativnem laboratoriju. Kot partner je sodelovala Višja Laponska strokovna šola v Rovaniemi, kjer so potekale aktivnosti konstrukcije, krojenja, šivanja in zaključnih del. Udeleženci delavnice so združili stare tradicionalne materiale in novo metodo oblikovanja.

My topic of the lectures was the CIRRUS IP *Traditions and Innovations* Workshop developing the sustainable use of reindeer: How to use all parts of the reindeer skin? We tried to use all parts of the reindeer skin, bones and horns.

The Faculty of Art and Design, University of Lapland hosted a joint Cirrus-workshop. We had two groups, the Clothing Design Group and Product Innovation Group. In the design process we used the so-called Service design method. The Workshop consisted of joint lectures, visits, as well as group work with final presentations. We held Brainstorming for ideas in the Service Innovation Laboratory. The Vocational College of Lapland in Rovaniemi was a very good cooperation partner. There, we were patterning, cutting, sewing and finalising works together with our own group and students from the Vocational College of Lapland. In the Workshop, the idea was to put together old traditional material and new design methods.



O predavatelju

Suzana Uran je doktorirala na Fakulteti za elektrotehniko, računalništvo in informatiko Univerze v Mariboru, kjer je od leta 1985 tudi zaposlena. Njeno ožje področje raziskovanja zajema mehatroniko, vgradne sisteme, mobilne robote in regulacijo. Od leta 2000 je aktivna na področju promocije naravoslovja in tehnike ter robotike. Promocijske aktivnosti zajemajo učence osnovnih šol, dijake srednjih šol in študente. Sodelovala je pri osnovanju robotskih tekmovanj RoboSled in RoboCupJunior Slovenija in je vodila projekt čezmejnega sodelovanja SI-AT TEDUSAR v obdobju 2011-2014.

About the Lecturer

She studied at the Faculty of Electrical Engineering and Computer Science in Maribor and, since then, she has been employed at the same Faculty. Her professional interests are mechatronics, embedded computers, mobile robots and control. Since 2000, she has worked in the promotion of Science and Technology among primary school and secondary school students, as well as university students. She has set up the robotics competitions RoboSled and RoboCupJunior in Slovenia and has been a leader of the SI-AT TEDUSAR Project since 2011-2014.



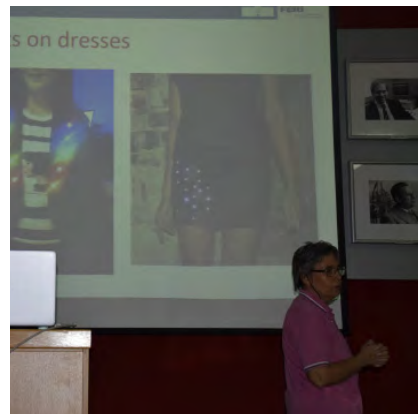
Assist. Prof. Dr. Suzana Uran

Univerza v Mariboru | Fakulteta za elektrotehniko, računalništvo in informatiko
University of Maribor | Faculty of Electrical Engineering and Computer Science

Svetloba in tehnologija
Light & Technology

V prispevku so predstavljena nova oblačila z nosljivo elektroniko. Osrednja pozornost prispevka je namenjena predstavitvi uporabe nosljive tehnologije Lilypad. Predstavljena so bila osnovna električna vezja, nosljiv mikroračunalnik Lilypad, nosljivi senzorji in LED diode ter električne povezave, izvedene s pomočjo prevodnega sukanca. Na koncu je predstavljeno programsko okolje in obravnavan primer programa za svetleče LED diode.

The lecture presented some new dresses with wearable electronics and then oriented towards the presentation of a sample to implement wearable technology called Lilypad. Presented were the basics of electrical circuits, a Lilypad sewable computer, sewable sensors, sewable LED and diodes. Special attention was paid to electrical connections performed with conductive thread. Finally, the programming environment and an example of program for LED diodes were presented and explained.





O predavatelju

Dr. Jasmin Kaljun je docent na področju inženirskega oblikovanja in CAD tehnologij na Fakulteti za strojništvo Univerze v Mariboru. Julija 2011 je uspešno zagovarjal doktorsko disertacijo z naslovom *Model inteligentne podpore pri ergonomskem in estetskem razvoju izdelka* in pridobil naziv doktorja znanosti. Deluje v okviru Laboratorija za inteligentne CAD sisteme in Laboratorija za inženirsko oblikovanje, kjer se ukvarja s problematiko oblikovanja izdelkov ter integracijo ergonomskih in estetskih parametrov v inteligentne CAD sisteme.

About the Lecturer

Dr. Jasmin Kaljun is an Assistant Professor for Product Design and CAD technologies`related subjects at the Faculty of Mechanical Engineering, University of Maribor. In July 2011 he defended successfully his Doctoral Thesis entitled *Intelligent Support Model for Ergonomic and Aesthetic Product Development* and obtained a Ph.D. degree. He is working in the Laboratory for Intelligent CAD Systems and Laboratory for Product Design in the field of Product Design and integrating ergonomic and aesthetic parameters into intelligent CAD systems.

Assist. Prof. Dr. Jasmin Kaljun
Univerza v Mariboru | Fakulteta za strojništvo
University of Maribor | Faculty of Mechanical Engineering

Kako oblikovati portfolio?

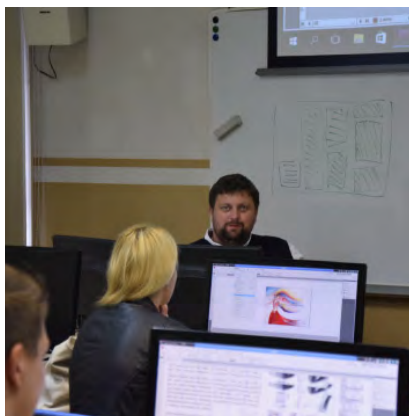
How to Design a Portfolio?

Portfolio omogoča uporabnikom prikaz akademskih in strokovnih dosežkov. Tako kot umetniški portfolio lahko vaš portfolio dokumentira razvoj vašega učenja in delovnih izkušenj. V nadaljevanju so predstavljeni primeri uporabe, in sicer portfolio študenta, novinarja in profesorja arheologije. Prispevek predstavlja uvod v ustvarjanje, prilagajanje in upravljanje portfoliev.

Avtor prvo predstavi kako načrtovati portfolio z vidika izbora, organiziranosti in izbire najboljših primerov dela. Nato predstavi ustvarjanje lupine za portfolio, dodajanje strani in vsebine na teh straneh ter natančneje prikaže prilagajanje videza portfeliev s spremembo barv, tipografije, postavitve, naslovov strani in razdelkov naslovov. Na koncu predstavi kako si ogledati svoj portfolio in ga deliti z drugimi uporabniki in prikaže portfelie nekaterih uporabnikov.

Portfolios allow users to showcase both academic and professional achievements. Just as an artist's portfolio is ongoing, your portfolio can document the evolution of both your learning and work experience. The following are examples of using a portfolio, such as portfolio of a Student, Journalist and Professor of Archeology.

This lecture provided a hands-on introduction to creating, customizing and managing portfolios. The author first presented how to plan a portfolio in terms of collection, organisation, and selection of the best examples of the work. Then, she presented the creation of a portfolio shell, adding portfolio pages and content to these pages, discussed in detail the portfolio's appearance by changing colours, typography, layout, page titles, and page headings` titles. Finally, she presented how to preview the portfolio and share it with other users.





O predavatelju

Päivi Rautajoki
Universitetni učitelj za področje oblačil in konstrukcije
Specializacija: oblikovanje form
Znanstveno področje: visualna umetnost in design
Aktivnosti: Arktična modna revija - Arktični karnival
Fakulteta za umetnost in oblikovanje
Univerza v Laplandu, Finska
www.ulapland.fi

About the Lecturer

Päivi Rautajoki
University teacher: Clothing and patterning
Teaching specialization: Form design
Field of science: Visual arts and design
Activities: Arctic Fashion Show - Arctic Carnival
Department of Textile and Clothing Design
Faculty of Art and Design
University of Lapland, Finska
www.ulapland.fi

Prof. Päivi Rautajoki
Univerza v Laplandu | Fakulteta za umetnost in design | Finska
University of Lapland | Faculty of Art and Design | Finland

Oblikovanje oblačil z uporabo 3-D programa Modaris
Clothing Design with 3D Modelling Program Modaris

V prispevku so predstavljene možnosti 3-D virtualnega podajanja oblačil, ki odpira možnost bodočemu oblikovanju. Uporabljenih je nekaj metod za 3-D pristajanje. Na prvem nivoju je uporabljen osnovni proces virtualnega podajanja. Drugi nivo zajema prilagajanje in testiranje 3-D programa, na tretjem nivoju pa poteka delo s 3-D prilagajanjem.

V nadaljevanju je prikazan osnovni proces 3-D virtualnega podajanja oblačil. Po oblikovanju kolekcije oblačil se izvede 2-D konstruiranje krojev oblačil s programskim paketom Modaris in nato proces 3-D pristajanja oblačil v virtualnem okolju. Ta proces zelo motivira študente, saj lahko vidijo svoj dizajn in videz oblačila na t.i. avatar modelu in analizirajo vizualno podobo kreiranih dizajnov oblačil. Po izvedbi potrebnih korektur krojev se pristopi k realizaciji dejanskih prototipov oblačil. 3-D virtualni prototipi oblačil služijo za pripravo portfoliev kolekcije oblačil s podrobnim opisom tekstilnih materialov, njihovih barv in tekstur ali za vizualizacijo marketinške ideje.

The contribution presented clothing design with the 3D modelling program Modaris, which opens the possibility of future methods for design for our students. We have used some kind of methods with 3D fitting. At the first level, we used the basic virtual fitting process. Second, we adapted and tested the 3D program possibilities and third, we worked with and without 3D fitting.

The following is the presented basic 3D fitting process. After designing the collection, we did the 2D patterning with Modaris and then the 3D virtual fitting process. This process motivated the students highly. They wanted to see their own designs and outfits on an avatar model and fit and comment on them. After comments and fixed patterns, comes the real prototype. We can investigate functional garment proportions on different sides of the body and fix design details by 3D fitting. When the fitting is ready, you can use the pictures data in the portfolio in many different ways, for example coordinating the collection materials or colours or visualising the marketing idea.



O predavatelju

Doc. mag. Kiki Klimt je diplomirala iz slikarstva. Podiplomski študij je nadaljevala na kiparstvu, kjer si je pridobila naziv magistre. V vseh teh letih je delovala na številnih področjih; predavala je na različnih univerzah (Ljubljana, Sofia, Istanbul, Lizbona) in delovala na različnih projektih, vključujoč umetniško ustvarjanje (slikarstvo, risba, fotografija, video, performans), raziskave (vizualne komunikacije, verbalna komunikacija, mitologija in simbol, zavest, človekovo zaznavanje in vedenje) in komercialne projekte (ilustracije, knjiga oblikovanje, celostne podobe, web design, embalaža).

About the Lecturer

Assistant Professor Kiki Klimt graduated in Painting and got a Master of Arts degree in Sculpture. She has developed strong skills in many areas; working at different universities (Ljubljana, Sofia, Istanbul, Lisbon) as a visiting Professor, and on many different projects, including artistic (painting, drawing, photography, video, performance), research (visual communication, verbal communication, mythology and symbols, consciousness, human perception and behaviour) and commercial (illustrations, book design, corporate identities, web design, packaging).



Assist. Prof. M.Sc. Kiki Klimt, Ljubljana | Slovenia

Notranji sijaj materiala Internal Shine of Material

Osnovni koncept predavanj je pregled formalnih teorij o svetlobi in barvi ter razliki med materialom in materijo. Skozi razumevanje teh osnovnih pojmov in dejstev lahko razumemo objektivno resnico o svetlobi in barvi in si kasneje odgovorimo na dve pomembni vprašanji, zakaj imajo nekateri materiali notranji sijaj in kje smo izgubili zmožnost to razpoznati.

In this lecture we were questioning some formal theories about light and colour and the difference between material and matter. With understanding of this primal facts, we can understand the objective truth about light and colour. And only then can we answer our questions why some materials shine and where did we lose our abilities to see this?





O predavatelju

Mag. Jaroslava Frajová
Akademija za likovno umetnost
in oblikovanje, Bratislava
Slovaška

About the Lecturer

Mgr. Art. Ing. Jaroslava Frajová
Academy of Fine Arts and De-
sign, Bratislava
Slovakia

O predavatelju

Doc. M.A. Mgr. Maria Fulková je študirala oblikovanje tekstilij na Akademiji za likovno umetnost, arhitekturo in design v Pragi ter kostumografijo na DAMU v Pragi. Je vodja Studia za oblikovanje tekstilij na Akademiji za likovno umetnost in oblikovanje v Bratislavi, kjer poučuje oblikovanje tekstilij. Delno predava tudi na Univerzi v Hradec Králové. Poleg tega je aktivna na področju oblikovanja tekstilij in gledaliških kostumov.

Assist. Prof. M.A. Mgr. Maria Fulková has studied Textile Design at the Academy of Fine Arts Architecture and Design in Prague and Theatre Costume at DAMU in Prague. She is the head of the Textile Design Studio at the Academy of Fine Art and Design in Bratislava, where she teaches Textile Design. She teaches part-time at the University of Hradec Kralove. She is also active in textile designing and the designing of theatre costumes.

Assist. Prof. M. A. Mgr. Mária Fulková & Mgr. Art. Ing. Jaroslava Frajová
Akademija za likovno umetnost in design | Bratislava | Slovaška
Academy of Fine Arts and Design | Bratislava | Slovakia

Vlakno in svetloba

Fiber and Light

Predavanje je osredotočeno na vire svetlobe, ki lahko sodelujejo ali vplivajo na tekstilni material. Predavanje je razdeljeno v dva dela. V prvem delu je M. Fulková predstavila umetniška dela študentov Akademije za likovno umetnost in oblikovanje v Bratislavi ter študentov Univerze v Hradec Králové. Predavanje je bilo razdeljeno v 8 kategorij, in sicer: žarnica kot vir svetlobe / transparentnost tekstilij / fluorescentne barve / optična vlakna / naravna svetloba in senca / UV svetila / uničujoča svetloba. V drugem delu je J. Frajová predstavila delavnico *Svetloba v našem življenju* in razstavo *Record of moment*, delo, podprto v okviru projekta *Center za aplikativne raziskave novih materialov in prenos tehnologije*.

The lecture was focused on the sources of light which can cooperate with, or can influence, textile material. The lecture was divided into two parts. In the first part, M. Fulková presented artworks made by students of the Academy of Fine Arts and Design in Bratislava and the University of Hradec Králové. The lecture was divided into 8 categories: The bulb as the light source / textile transparency / fluorescent colours / optical fibers / natural light and the shadow / UV lights / destroying light. In the second part J. Frajová presented the Workshop *The light in our lives* and the exhibition *Record of the moment*, work, supported under the Project *The Centre of Applied Research for new materials and technology transfer*.

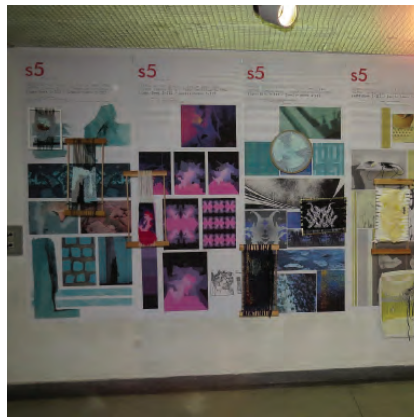
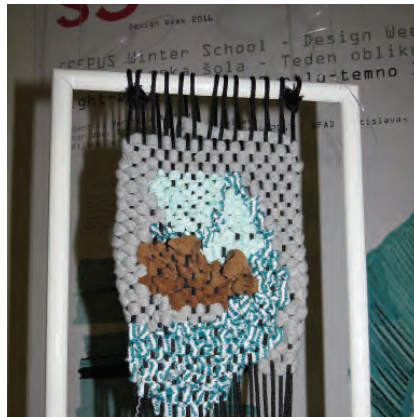
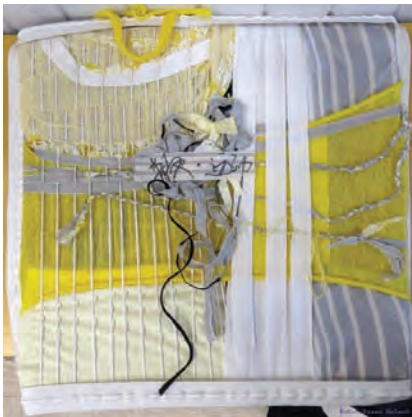


Delavnice

Design v luči svetlobe

Workshops

Design in the Light of Light

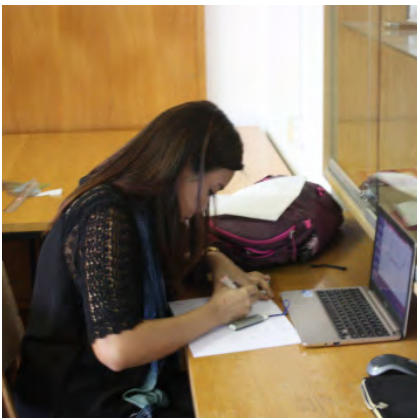


Izmenjava dneva in noči, svetlobe in teme je polarnost, ki je imanentna za življenje na našem planetu. Najmočnejši orodji v likovnem izražanju kontrasta svetlobe in teme predstavljata bela in črna barva, ki smo ju proučevali v lanski delavnici z naslovom *Črno-belo*. Letos smo proučili fenomen svetlo-temno med kromatskimi barvami, ker le-ta predstavlja pomembno vodilo pri oblikovanju. V delavnici *Svetlo-temno* smo proučili kromatske, pestre barve v odnosu do črne, bele in nevtralne sive barve po enem od *Johannes* Ittnovih principov sedmih barvnih kontrastov. Študenti so primerjali stopnje svetlosti različnih kromatskih vrednosti ter izenačili barve po svetlosti. Z učenjem svetlostnega izenačevanja kromatičnih barv so študenti pridobili neprecenljivi vir za oblikovanje (oblikovalsko orodje). Različne implicitne svetlosti pestrih barv predstavljajo hude težave oblikovalcem tekstilij, zato se vsak osnutek vzorca tekstilij izvede v vsaj štirih različnih barvah ali kombinacijah, vsaka skupina barvnih kombinacij pa se, po J. Ittnu, usklajuje kot celota. V okviru kreativne delavnice *Svetlo-temno IV-VI* so študenti na podlagi izbrane oblikovne različice vzorca tkanine, razvite v delavnici *Svetlo-temno I-III*, le-to preoblikovali v končni (dekorativni) izdelek, tj. tkanino z uporabo tehnike prostoročnega tkanja.

The exchange of day and night, light and darkness is the polarity of fundamental significance for life on our planet. The designer's strongest expressions of light and dark are black and white colours, which we studied last year within the workshop *Black-White*. This year, the phenomena of light-dark among chromatic colours was studied, "for they yield valuable guides" to our work in the field of Design. In the Workshop *Light-Dark*, students were studying chromatic colours and their relationship to black, white and gray after colour theorist Johannes Itten's principle of the seven colour contrasts. The student task was to compare gradations and brilliances of unlike hues and to identify colours of equal brilliance accurately, since the quality of light and dark relates colours to each other. By learning to extinguish the light-dark contrast among chromatic colours, students will gain an invaluable resource for design. The unlike implicit brilliances of hues pose difficult problems for textile designers, therefore, any textile design is likely to be produced in at least four different colours or combinations, and each group of colour combinations must be coordinated as a whole, as stated by J. Itten. On the basis of the selected version of woven fabric pattern developed in the Workshops *Light-Dark I-III*, the students within the creative Workshops *Light-Dark IV-VI*, transformed their fabric pattern into a final (decorative) product – woven fabric by using the technique of free weaving.

Svetlo-temno Light-Dark

Assist. Prof. PhD. Andrej Skrbinek & Assoc. Prof. Dr. Polona Dobnik Dubrovski
Univerza v Mariboru | Fakulteta za strojništvo
University of Maribor | Faculty of Mechanical Engineering



Delavnica *Moda v luči tehnologije* je interdisciplinarno zasnovana in temelji na harmoniji mode in tehnologije, kot integracije svetlobnih učinkov v oblačilu. Sodobna nosljiva računalniška tehnologija z miniaturnimi elektronskimi komponentami omogoča danes vgradnjo in enostavno programiranje dinamičnih svetlobnih učinkov v oblačilu, kar je izhodišče za kreativni pristop k razvoju funkcionalnega inteligentnega oblačila, ki zrcali modo v luči sodobne nosljive računalniške tehnologije.

Udeleženci delavnice so se osredotočili na razvoj svečane inteligentne ženske obleke z vgrajenimi svetlobnimi učinki. Oblačilo je rezultat sooblikovanja harmonije mode in tehnologije, tj. v oblačilo integriranih miniaturnih elektronskih komponent, ki omogočajo posebne funkcijske učinke, zasnovane na razvoju lastnih aplikacij. Za ta namen so bili uporabljeni posebni mikrokontrolerji, ki omogočajo ob uporabi lastnih aplikacij različne svetlobne učinke, kot so način razsvetljave, spreminjanje intenzitete osvetlitve ali učinke svetlobe v ritmu glasbe. Kreativnost udeležencev delavnice se je odražala v oblikovanju barvne harmonije, prepletene s harmonijo oblike, vsebine in svetlobnih učinkov.

The Workshop Fashion in The Light of Technology is an inter-disciplinary design and is based on the harmony of Fashion and Technology, as an integration of lighting effects in clothing. Today, contemporary wearable computer technology, with miniaturized electronic components, provides easy installation and easy programming of dynamic lighting effects in the clothing. This provides a platform for the creative approaches for the developing of intelligent clothing, that reflects fashion in the light of contemporary wearable computer technology.

Participants of this Workshop focused on the development of an intelligent solemn dress with built-in lighting effects. The dress is the result of the co-harmony of Fashion and Technology, i.e. integrated miniaturized electronic components into the dress. Electronic components enable the specific functional effects, based on the development of their own applications. For this purpose, special microcontrollers that enable the use of their own applications for various lighting effects were used, like lighting mode, changing the intensity of lighting or the effects of light in the rhythm of music. The creativity of participants was reflected in the creation of colour harmonies, interwoven with the harmony of form, content, and lighting effects.

Moda v luči tehnologije Fashion in the Light of Technology

Prof. Dr. sc. Jelka Geršak

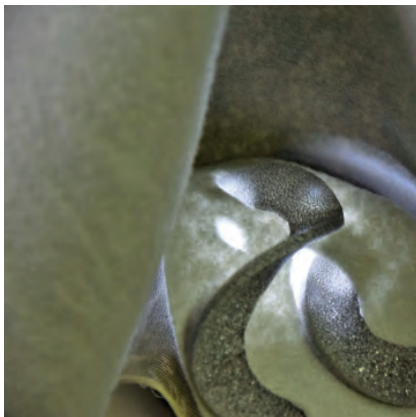
University of Maribor | Faculty of Mechanical Engineering

Assist. Prof. Dr. Suzana Uran

University of Maribor | Faculty of Electrical Engineering and Computer Science

Petra Krpan, Mag. Ing. Des. Text. & Ivana Mrčela

University of Zagreb | Faculty of Textile Technology | Croatia





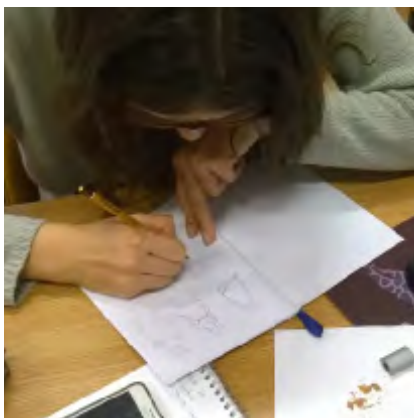
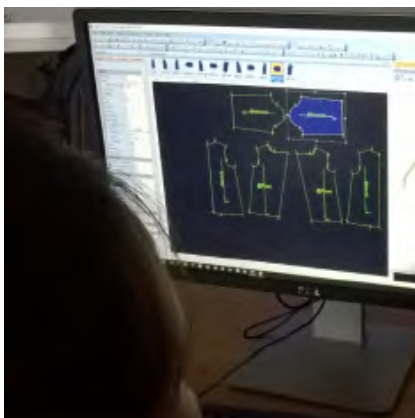
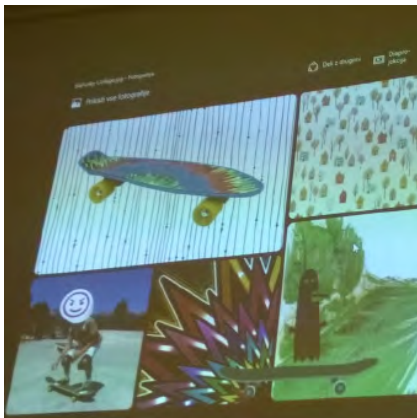
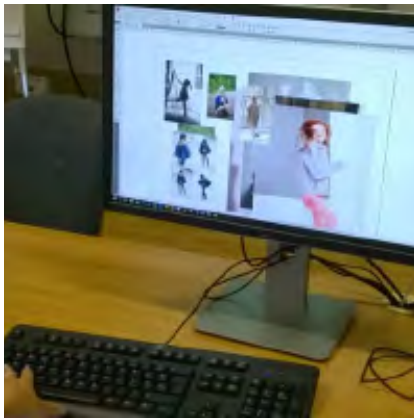
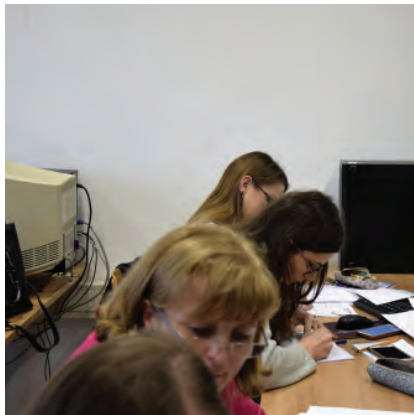
Delavnica *Igra svetlobe* je vključevala kreativno oblikovanje oblačil z različnimi materiali, ki zaradi svoje strukture in oblike omogočajo igro svetlobe in sence. Pro sevajoča se svetloba potencira igro struktur in ob vsakem premiku vira svetlobe kreira številne variacije na temo dizajna. Fotografiranje posameznih variacij nudi paleto kreativnih rešitev.

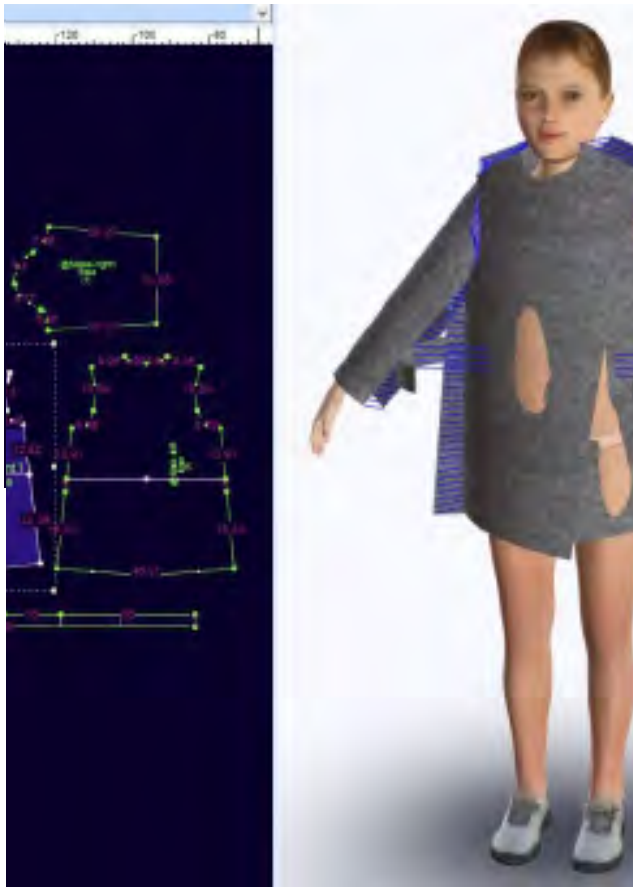
The Workshop *The Play of the Light* included creative clothing design by using different materials, which, due to their structure and shape, allow the play of light and shadows. Transmitted light intensifies a play of structures creating a number of design variations by each movement of the light. Photographing of individual variations offers a range of creative solutions where present light play.

Igra svetlobe

The Play of the Light

Assist. Prof. Dr. Sonja Šterman
Univerza v Mariboru | Fakulteta za strojništvo
University of Maribor | Faculty of Mechanical Engineering





V delavnici, ki je bila namenjena spoznavanju orodij za 3-D modeliranje oblačil, so študenti sprva pristopili k oblikovanju kolekcije oblačil za otroke in spoznali delo s programskim paketom Modaris. Sledilo je 2-D konstruiranje krojev oblačil s programskim paketom OptiTex PDS in njihovo pomerjanje ter ocenjevanje pristajanja v virtualnem okolju z modulom 3-D programskega paketa OptiTex. Slednje je študente motiviralo k nadaljnjem delu, saj so lahko vizualno podobo kreiranih dizajnov oblačil podrobneje analizirali na 3-D telesnih modelih otrok in izvedli potrebne popravke krojev ter oblikovali vizualno podobo oblačilnih prototipov. 3-D virtualni prototipi oblačil služijo za pripravo portfelja kolekcije oblačil s podrobnim opisom tekstilnih materialov, njihovih barv in tekstur ali za vizualizacijo marketinške ideje.

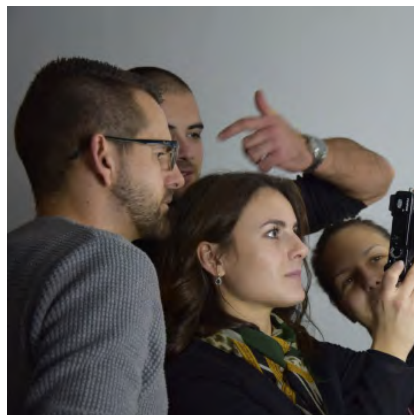
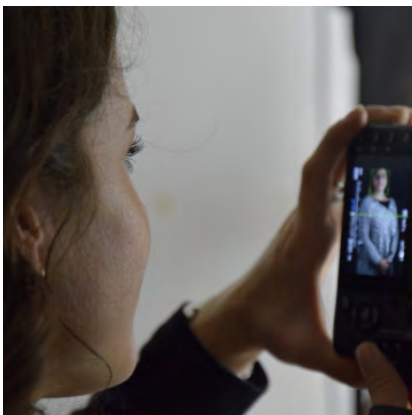
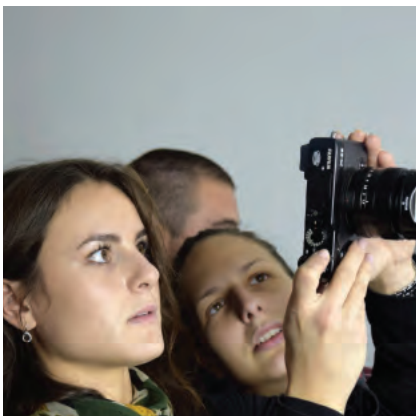
In our basic 3D fitting process, after designing the collection, we did the 2D patterning with Modaris and then 3D virtual fitting process. This process motivated the students highly. They wanted to see their own designs and outfits on an avatar model and fit and comment on them. After comments and fixed patterns, comes the real prototype. We can investigate functional garment proportions on different sides of the body and fixing design details by 3D fitting. When the fitting is ready, you can use the pictures` data in the portfolio in many different ways, for example coordinating the collection materials or colours or visualising the marketing idea.

Orodja za 3-D modeliranje oblačil

3D Modelling Tools Helping the Clothing Design Process

Prof. Päivi Rautajoki & Prof. Anu Kylmänen
University of Lapland | Faculty of Art and Design | Finland

Assist. Prof. Dr. Andreja Rudolf
University of Maribor | Faculty of Mechanical Engineering





Razumevanje svetlobe s pomočjo simulacije v Solidworksu (trda svetloba, mehka svetloba, smer osvetlitve, množica luči, barvna temperatura).

Ekspozicija - nastavitev pravilne osvetlitve (zaslonka, hitrost zaklopa, ISO); kompozicija - naredimo prijetne fotografije (izrez, pravilo tretjin, kršenje pravil); objektivni (izbira pravilne goriščne razdalje).

Fotografija – ideja in vizualno pripovedovanje zgodb. Razumevanje svetlobe pri fotografiranju izdelkov (kdaj izbrati kakšno svetlobo).

Proces izbiranja fotografij (izbiranje najboljših fotografij).

Urejanje fotografij (izboljševanje izpovednosti fotografije).

Fotografija – kreiranje foto predstavitev (orodja in triki).

Understanding light using simulation in Solidworks (hard light, soft light, point of direction, multiple lights, colour temperature).

Exposure – getting the right light (aperture, shutter speed, ISO); composition – getting pleasing photographs (framing, rule of thirds, breaking the rules). lenses (choosing the right focal length).

Photography – idea and visual storytelling.

Understanding light in product photography (when to choose what light).

Photo selection process (selecting best photographs).

Photo editing (enhancing the expression of a photograph).

Creating photo presentations (tools and tricks).

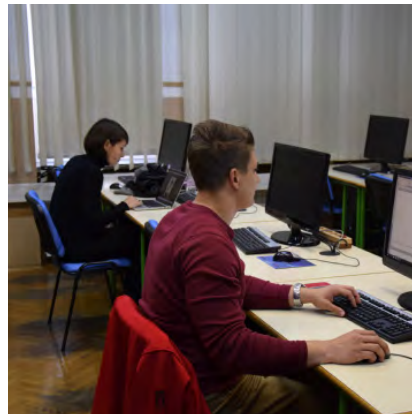
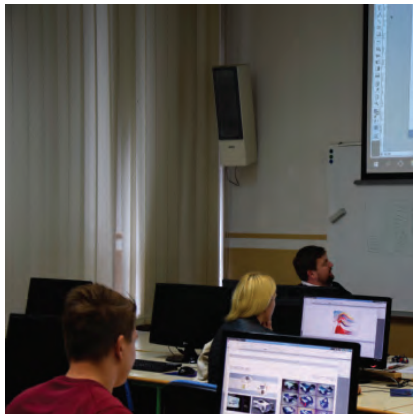
Fotografija – risanje s svetlobo

Photography – Painting with Light

Dr. Gregor Harih

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Opisnik

Klara Ventusova.

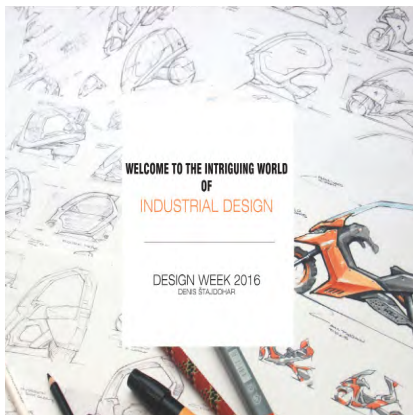
Two student of Academy of Fine Arts and Design of the University of Ljubljana, Klara Ventusova and Luka Ventusov.

During the past year, Klara and Luka have been working on a project called 'The Art of the Future'. They have been exploring the possibilities of using technology in art and design.

They are interested in the possibilities of using technology in art and design.



PORTFOLIO





This Workshop provided a hands-on introduction to creating, customizing and managing portfolios:

- First, you will look at how to plan a portfolio by collecting, organising, and selecting the best examples of your work.
- Next, you will create the portfolio shell, add portfolio pages, and add content to those pages. Content will be added in one of three ways: By entering text, by attaching files, and by linking to files in the Content Collection.
- The benefits of saving portfolio content as artifacts, which can be reused in multiple portfolios, will be emphasised.
- Customizing your portfolio's appearance by changing colours, typography, layout, page titles, and page headings` titles is discussed in detail. You will learn to edit and manage the appearance and content independently, in order to update your portfolios more efficiently.
- Finally, you will learn how to preview your portfolios and share them with other users. You will also view other users' portfolios, organise them for easier access, and add comments.

Portfolio Portfolio

Asist. Prof. Dr. Jasmin Kaljun
Univerza v Mariboru | Fakulteta za strojništvo
University of Maribor | Faculty of Mechanical Engineering



Namen delavnice je bil ustvariti prosojne strukture na temo sončni žarek. Aktivnosti so potekale v treh korakih. Prvi korak: Študentje so si zunaj ogledali podrobnosti narave in ulic, za kar so imeli na razpolago 1 uro. Posamezne detailne so fotografirali. Predstavili so inspiracije fotografij in izbrali posamezne vzorce za delo z materiali. Drugi korak: uporabili so dve tehniki. Prva skupina je delala s prozornim papirjem, druga skupina pa je uporabila tehniko likanja, ki je izvedla prenos olne barve na tkanino z likalnikom. V tretjem koraku so odgovorili na vprašanja, kaj je svetloba v naši življenju. V okviru delavnice je bila izvedena mini razstava.



The aim of the Transparency Workshop was creating transparent structures for the topic sunny beam. Activities were carried out in three steps. First step: Students went outside and looked at nature's and the street's details. Timing was one hour. Then they took photos of these details. The students presented the inspiration of photos and selected one pattern for work with materials. Second step: We had two techniques. First with tracing paper and second the author's technique with ironing. Transfer from oil pastels to fabric with ironing. In the third step, we answered the question What is light in our lives? Immediately after finishing the Workshop we held a mini exhibition.

Transparentnost Transparency

Assist. Prof. M. A. Mgr. Mária Fulková & Mgr. Art. Ing. Jaroslava Frajová
Akademija za likovno umetnost in design | Bratislava | Slovaška
Academy of Fine Arts and Design | Bratislava | Slovakia



Namen delavnice je raziskati učinke prosojnosti bele materije. Izkoriščanje prosojnosti kot posebne lastnosti bele materije ponuja oblikovalcem široke možnosti eksperimentiranja. Ko so prosojne površine obdane s svetlobo, oddajajo sij in globino, ter prevzemajo svetilnost. V okviru delavnice so udeleženci na podlagi več slojnih struktur prosojne bele materije, ki dosega različne gostote in učinke, razvijali ideje male bele obleke.

The aim of this Workshop was to explore the effects of white matter's transparency. Exploitation of transparency as a specific feature of the white matter offers designers extensive opportunities to experiment. When the transparent surfaces are surrounded by a light they emit shine and depth, and assume luminance. Within the Workshop the participants developed the idea of small white dresses using multi-layered combinations of white matter's transparency, which, due to its structure, achieves different densities and effects.

Raziskava prosojnosti bele materije na primeru male bele obleke

Study of white Matter's Transparency in the Case of Small White Dress

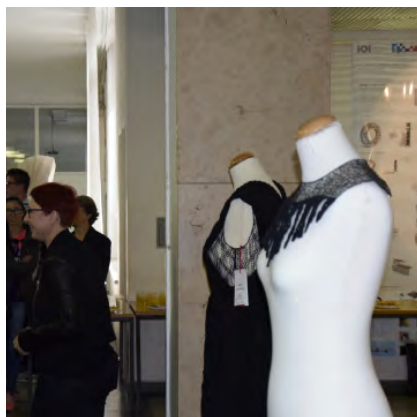
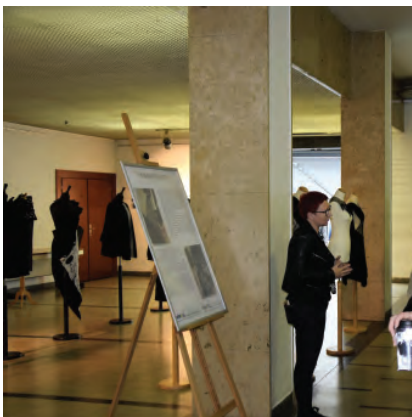
Assoc. Prof. Andrea Pavetić & Petra Krpan, Mag. Ing. Des. Text.
Univerza v Zagrebu | Tekstilno-tehnološka fakulteta | Hrvatska
University of Zagreb | Faculty of Textile Technology | Croatia

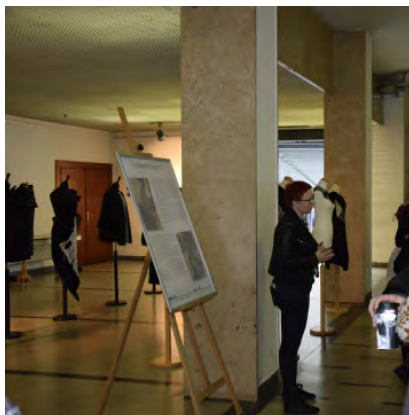
Razstave

Design v luči svetlobe

Exhibitions

Design in the Light of Light





Razstava *Kontrasti* je bila predstavljena v okviru Meseca mode, ki ga organizira Pokrajinski muzej Maribor. Likovno izhodišče oblačil so predstavljali kontrasti, čipke, strukture in površine, ki so jih ustvarjali študenti 2. in 3. letnika smeri Oblikovanje in razvoj izdelka.

The exhibition *Contrasts* was performed in the context of the Month of fashion, organized by the Regional Museum Maribor.

The art base is represented by contrasts, laces, structures and surfaces, made by students from the second and the third class of the study programme Design and Development of Products.

Kontrasti | Contrasts

Fakulteta za strojništvo | Univerza v Mariboru
Faculty of Mechanical Engineering | University of Maribor

Lokacija | Location: Salon Tehniških fakultet, Smetanova 17, Maribor

October 15-18, 2016





Razstava *Living Memory - Digital Future* je del isto imenskega projekta s poudarkom na ohranjanju tradicionalne obrti in prehodu te na nove digitalne tehnologije. Razstavo so skupaj pripravili študenti Akademije za likovno umetnost in oblikovanje iz Bratislave in z Oddelka za oblikovanje tekstilij na Pedagoški fakulteti Univerze v Hradec Králové.

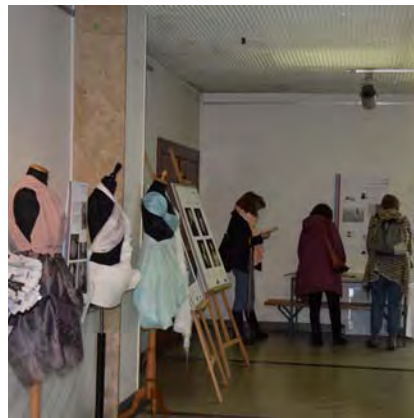
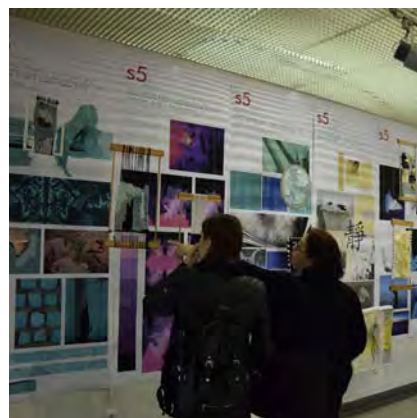
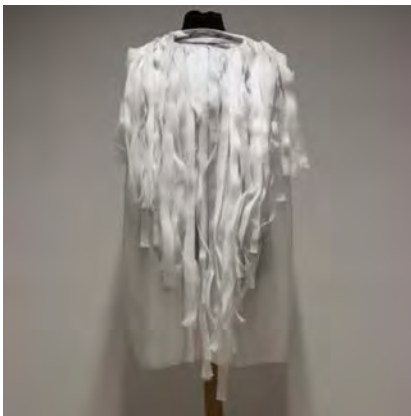
The exhibition *Living Memory - Digital Future* is a part of a project of the same name focusing on preservation of traditional craft and its shift towards new digital technologies. The exhibition was prepared by students of the Academy of Fine Arts and Design in Bratislava, together with students of the Department of Textile Design at the Faculty of Education, University of Hradec Králové.

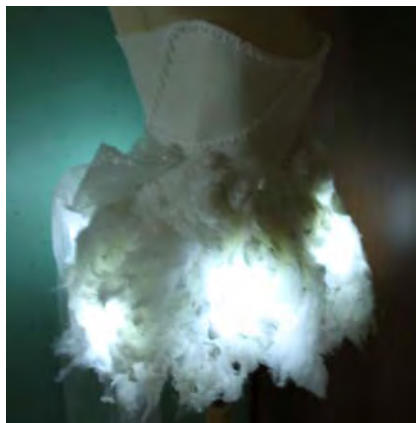
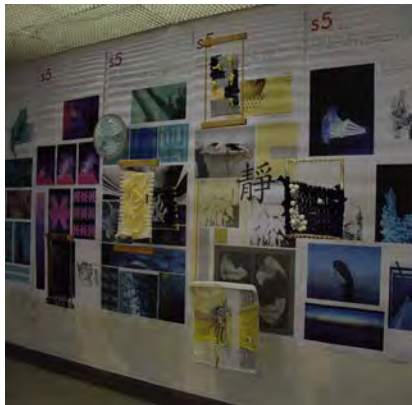
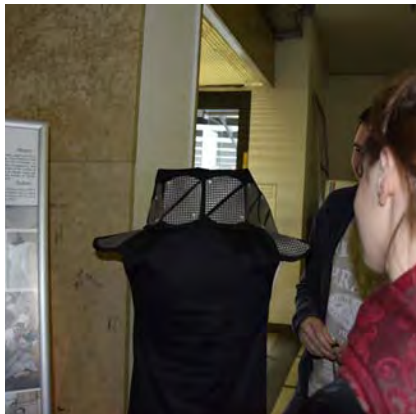
Living Memory - Digital Future

Mentor: Assist. Prof. M. A. Mgr. Mária Fulková
Academy of Fine Arts and Design, Bratislava, Slovakia

Lokacija | Location: Salon Tehniških fakultet, Smetanova 17, Maribor

October 18-20, 2016





Design in the Light of Light New Challenges - New Solutions

Peta mednarodna CEEPUS zimska šola Design Week
5th International CEEPUS Winter School Design Week

Lokacija: Salon Tehniških fakultet, Smetanova 17, Maribor

21. 10. 2016 - 30. 11. 2016

Študijski programi *Oblikovanje in tekstilni materiali* na Fakulteti za strojništvo Univerze v Mariboru nudijo interdisciplinarno akademsko znanje, ki pokriva različna področja znotraj tehničnih, humanističnih in družbenih ved, kot so oblikovanje, inženirstvo in umetnost.

Študij je zasnovan na tesni povezavi teoretičnih in praktičnih izobraževalnih elementov in je organiziran v obliki tristopenjskega študija:

1. dodiplomski univerzitetni študij *Oblikovanje in tekstilni materiali* s smerema:
 - Inženirsko oblikovanje tekstilnih materialov,
 - Tekstilni materiali.
2. podiplomski magistrski študij *Oblikovanje in tekstilni materiali* s smerema:
 - Inženirsko oblikovanje tekstilnih materialov,
 - Tekstilni materiali.
3. doktorski študij *Oblikovanje in tekstilni materiali*.

Vzporedno poteka tudi dodiplomski visokošolski študij *Tehnologije tekstilnega oblikovanja* s smerema:

- Materiali in tekstilne tehnologije,
- Oblikovanje in razvoj izdelka.

Izobraževalne vsebine zagotavljajo študentom ustrezno strokovno znanje, strateško razmišljanje in delovne metode, ki jih pripravljajo za kariero na visoki strokovni ravni.



Vsi, ki bi želeli dopolniti obstoječa in pridobiti dodatna znanja in izkušnje na drugih univerzah vam Katedra za tekstilne materiale in oblikovanje omogoča pestro izbiro študija v tujini. V okviru programa CEEPUS in Erasmus+ lahko študent opravi del rednih študijskih obveznosti na kateri koli stopnji študija, namesto na matični instituciji, na partnerski instituciji v tujini.

Študenti razvijejo svoje ustvarjalne vizije in vodstvene sposobnosti na področju mode, oblikovanja tekstilnih form, tekstilnih materialov in razvoja izdelkov.

Prisrčno vas vabimo, da nas obiščete, in če resnično iščete edinstveno izobraževalno izkušnjo, se nam pridružite.



Študiraj z nami

Katedra za tekstilne materiale in oblikovanje
Fakulteta za strojništvo
Univerza v Mariboru

<http://www.fs.um.si/oblikovanje-in-tekstilni-materiali/>

The Study Programmes *Design and Textile Materials* at the Faculty of Mechanical Engineering, University of Maribor, assure interdisciplinary academic knowledge covering different areas within the Technical, Humanities and Social Sciences, such as Design, Engineering and the Arts.

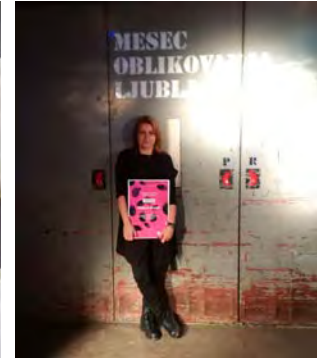
The study is based on the close linkages of theoretical and practical educational elements, designed in the form of a three-level system of study:

1. Undergraduate university-level Study Programme *Design and Textile Materials*
2. Postgraduate (Master of Engineering) Study Programme *Design and Textile Materials* with directions:
 - Engineering Design of Textile Materials
 - Textile Materials
3. Doctoral (PhD.) Study Programme *Design and Textile Materials*.

Parallel to that, there is also the Undergraduate Higher Education Study Programme *Textile Design Technologies* with two directions:

- Materials and Textile Technologies
- Design and Development of Products.

The educational contents assure the students appropriate expertise, strategic thinking and working methods, and prepare them for a career at highest professional standards.



Anyone who would like to supplement existing and acquire additional knowledge and experience at other universities, has a chance to use a wide selection of study abroad. The Chair of Textile Materials and Design helps and supports those students. Within the framework of CEEPUS and Erasmus+ Programmes, the students can carry out part of their regular academic requirements at any level of the study, at a partner institution abroad instead at the home institution.

Students develop their creative visions and leadership skills in the fields of Fashion, Design of Textile Forms, Textile Materials and Product Development.

We cordially invite you to visit us, and if you are looking for a truly unique educational experience, join us.

Study with us

Chair of Textile Materials and Design
Faculty of Mechanical Engineering
University of Maribor

<http://www.fs.um.si/oblikovanje-in-tekstilni-materiali/>



Raziskovalno-inovacijski center
za design in oblačilno inženirstvo

Fakulteta za strojništvo I Univerza v Mariboru

Smetanova ulica 17

SI-2000 Maribor

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