

Laboratorij za tekstilne tehnologije in računalništvo v tekstilstvu – LTTTRT

Kontakt: prof. dr. Zoran Stjepanović, zoran.stjepanovic@um.si

Laboratorij nudi storitve s področja kakovostnega in cenovnega optimiranja mešanice prediv in napovedovanje rezultirajočih mehanskofizikalnih in vizualnih lastnosti predivnih prej. Za potrebe zunanjih naročnikov izvaja svetovanje v povezavi z inoviranjem tekstilno mehanskih procesov predenja in pletenja z uvajanjem ustreznih računalniško podprtih informacijskih sistemov.

Ključne besede: Optimiranje mešanic prediv in projektiranje lastnosti predivnih prej, analiza in razvoj pletiv z načrtovanimi lastnostmi, 3D skeniranje, izdelava 3D telesnih modelov, virtualno prototipiranje in vizualizacija tekstilij, oblačil in drugih tekstilnih form.



3D skeniranje in obdelava telesnega modela



Virtualna modna revija

Povezava na spletno stran laboratorija: <http://ltrt.fs.um.si>

Sodelavci laboratorija:

- prof. dr. Zoran Stjepanović, vodja
- izr.prof. dr. Andreja Rudolf (sodelavka pri izvedbi mednarodnih projektov)
- dr. Andrej Cupar (sodelavec pri izvedbi mednarodnih projektov)
- Franc Holer, tehnični sodelavec

Razpoložljiva oprema:

- Laboratorijski prstanski predilnik
- Laboratorijski predpredilnik
- Elektronsko krmiljen ploski dvofonturni pletilnik
- 3D ročni skener

Pomembnejši novejši projekti:

- OptimTex, Erasmus+ programme (2020-2022).
- Skills4Smartex, Erasmus+ programme (2018-2020).
- TexMatrix, Erasmus+ programme (2016-2018).
- Bilateralni project SLO-HR: Nove tehnologije pri razvoju zaščitnih oblačil v virtualnem okolju (2016-2017).
- Advan2Tex, Erasmus+ programme (2014-2016).
- Croatian Science Foundation: Application of mathematical modelling and intelligent algorithms in clothing construction (2014-2018).

Pomembnejše reference v zadnjih 5 letih:

- STJEPANOVIĆ, Zoran, CUPAR, Andrej, RADULESCU, Ion Razvan, RUDOLF, Andreja. Using stem principles for understanding smart textiles' solutions - The Slovenian experience. V: GHITULEASA, Carmen (ur.). Proceedings : Tex Teh IX : Advanced textiles for a better world. TEXTEH 9 International Conference Proceedings, Buchares, Romania, October 24-25, 2019. Bucharest (Romania): Certex Publishing House: Ministry of Research and Innovation, cop. 2019. Str. 224-227.
- BOGOVIĆ, Slavica, STJEPANOVIĆ, Zoran, CUPAR, Andrej, JEVŠNIK, Simona, ROGINA CAR, Beti, RUDOLF, Andreja. The use of new technologies for the development of protective clothing: comparative analysis of body dimensions of static and dynamic postures and its application. AUTEX research journal. [Print ed.]. Dec. 2019, vol. 19, no. 4, str. 301-311.
- RUDOLF, Andreja, STJEPANOVIĆ, Zoran, CUPAR, Andrej. Designing the functional garments for people with physical disabilities or kyphosis by using computer simulation techniques. Industria textilăa. 2019, vol. 70, no. 2, str. 182-191.

- RADULESCU, Ion Razvan, ALMEIDA, Luis, VANNUCCI, Roberto, BLAGA, Mirela, DUFKOVA, Petra, STJEPANOVIĆ, Zoran. Texmatrix - The knowledge matrix for innovation applied to textile enterprises. *Industria textilæa*. 2019, vol. 70, no. 2, str. 197-202.
- CUPAR, Andrej, STJEPANOVIĆ, Zoran, OLARU, Sabina, POPESCU, Georgeta, SALISTEAN, Adrian, RUDOLF, Andreja. CASP methodology applied in adapted garments for adults and teenagers with spine deformity. *Industria textilæa*. 2019, vol. 70, no. 5, str. 435-446.
- JEVŠNIK, Simona, ERYÜRÜK, Hanife, KALAOĞLU, Fatma, KARAGÜZEL KAYAOĞLU, Burçak, KOMÁRKOVÁ, Petra, GOLOMBIKOVA, Viera, STJEPANOVIĆ, Zoran. Seam properties of ultrasonic welded multilayered textile materials. *Journal of industrial textiles*, ISSN 1528-0837. [Print ed.], 2017, vol. 46, iss. 5, str. 1193-1211.
- RUDOLF, Andreja, ZADRAVEC, Metka, STJEPANOVIĆ, Zoran. Investigations regarding the effects of simulating parameters during 3D garments' drape simulations. *Fibres & textiles in Eastern Europe : an international magazine devoted to current problems of the textile industries in Central and Eastern Europe*. 2016, vol. 24, no. 6(120), str. 143-150. ISSN 1230-3666.
- STJEPANOVIĆ, Zoran, CUPAR, Andrej, JEVŠNIK, Simona, KOCJAN-STJEPANOVIĆ, Tanja, RUDOLF, Andreja. Construction of adapted garments for people with scoliosis using virtual prototyping and CASP method. *Industria textilæa*, ISSN 1222-5347, 2016, vol. 67, no. 2, str. 141-148.