

List of Journal Publication

1. Reddy K. M., Saravana Kumar G., Chand A. K. B., Family of shape preserving fractal-like Bezier curves , Fractals, 2020. IF: 4.536.
2. Venkatesh Krishnan, Vicky Varghese, Saravana Kumar G., Narayan Yoganandan, Identification of Pedicle Screw Pullout Load Paths for Osteoporotic Vertebrae , Asian Spine Journal, 2020. IF: 1.785.
3. Vicky Varghese, Venkatesh Krishnan, Saravana Kumar G., Comparison of pullout strength of pedicle screws following revision using larger diameter screws , Medical Engineering & Physics, 17:180-185, 2019. IF: 1.785.
4. Ravi Khatri, Vicky Varghese, Sunil Sharma, Saravana Kumar G., and Harvinder Singh Chhabra, Pullout Strength Predictor: A Machine Learning Approach , Asian Spine Journal, 13(5):842-848, 2019. IF:1.117.
5. Jobin D. John, Saravana Kumar G., and Narayan Yoganandan, Rear-impact neck whiplash: Role of head inertial properties and spine morphological variations on segmental rotations, ASME Journal of Biomechanical Engineering, 141(11):111008-111008-10. 2019. IF: 1.916.
6. Jobin D. John, Saravana Kumar G., and Narayan Yoganandan, Cervical spine morphology and ligament property variations: A finite element study of their influence on sagittal bending characteristics, Journal of Biomechanics, 85: 18-26, 2019. IF: 2.431.
7. Katiyar S.K., Chand A.K.B, and Saravana Kumar G., A New Class of Rational Cubic Spline Fractal Interpolation Function and its Constrained Aspects, Applied Mathematics and Computation, 346: 319-335, 2019. IF: 2.3.
8. Nakkina Parameswara Rao, Prakash K. Arul, and Saravana Kumar G., A surrogate model based method to obtain optimal design in spiral casing of

- Francis turbine, , International Journal of Mathematical Modelling and Numerical Optimisation, 9(2): 105–126, 2019. IF: 0.4.
9. Athertya J.S., Saravana Kumar G., Govindaraj J., Detection of Modic changes in MR images of spine using local binary patterns, Biocybernetics and Biomedical Engineering, 39(1):17-19, 2019. IF: 1.374.
 10. Vicky Varghese, Venkatesh K., and Saravana Kumar G., Pullout strength of pedicle screw- is bi layer model a better representation of vertebra?, Asian Spine Journal, 12(3): 398-406, 2018. IF: 1.117.
 11. Vicky Varghese, Saravana Kumar G., and Venkatesh K., Evaluating pedicle screw instrumentation using decision tree analysis based on pullout strength, Asian Spine Journal, 12(4): 611-621, 2018. IF: 1.117.
 12. Jobin D. John, Narayan Yoganandan, Mike W. J. Arun and Saravana Kumar G., Influence of morphological variations on cervical spine segmental responses from inertial loading, Traffic Injury Prevention, 19(1): 29-36, 2018. IF: 1.448.
 13. Ramu P., Saravana Kumar G., Neelakantan P. and Bathula K.K., Cost-reliability trade-off of path generating linkages using multi-objective genetic algorithm, Int. J. Reliability and Safety, 11(3/4): 200-219, 2017. IF: 0.5
 14. Saravana Kumar G. and Subin P. George, Optimization of custom cementless stem using finite element analysis and elastic modulus distribution for reducing stress-shielding effect, Journal of Engineering in Medicine - Proceedings of the Institution of Mechanical Engineers - Part H, 231(2): 149-159, 2017. IF: 0.996
 15. Vicky Varghese, Saravana Kumar G., and Venkatesh K., Effect of various factors on pull out strength of pedicle screw in normal and osteoporotic cancellous bone models, Medical Engineering Physics, 40: 28-38, 2017. IF:1.619
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16. Vicky Varghese, Saravana Kumar G., Palaniappan Ramu, and Venkatesh K., Pull out strength calculator for pedicle screws using a surrogate ensemble approach, *Computer Methods and Programs in Biomedicine*, 137:11-22, 2016. IF:1.862
 17. Athertya J.S., Saravana Kumar G. Fuzzy clustering based segmentation of Vertebrae in T1-weighted spinal MR images, *International Journal of Fuzzy Logic Systems*, 6(2): 23-34, 2016.
 18. Athertya J.S., Saravana Kumar G. Automatic segmentation of vertebral contours from CT images using fuzzy corners, *Computers in Biology and Medicine*, 72: 75-89, 2016. IF: 1.240
 19. Nakkina Parameswara Rao, Prakash K. Arul, and Saravana Kumar G., Numerical studies on fluid flow characteristics through different configurations of spiral casing, *Engineering Applications of Computational Fluid Mechanics*, 10(1): 297-311, 2016. IF: 1.033
 20. Vicky Varghese, Venkatesh K., and Saravana Kumar G., Comparative analysis of effect of density, insertion angle and reinsertion on pull-out strength of single and two pedicle screw constructs using synthetic bone model, *Asian Spine Journal* , 10(3): 414-421, 2016. IF: 0.844
 21. Krishnan Kumar, and Saravana Kumar G., An experimental and theoretical investigation of surface roughness of poly-jet printed parts, *Virtual and Physical Prototyping*, 10(1): 23-34, 2015. IF: 1.600
 22. Subin P. George, and Saravana Kumar G., Patient specific parametric geometric modelling and finite element analysis of cementless hip prosthesis, *Virtual and Physical Prototyping*, 8(1): 65-83, 2013. IF: 1.100
 23. Abhishek T. Dhumal, Ganesh Narayanan R., Saravana Kumar G., Simulation based expert system to predict the tensile and deep drawing behavior of tailor welded blanks, *International Journal of Modeling, Identification and Control*, 15(3): 164-172, 2012. IF: 0.868
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24. Susanta Kumar Dey, Ganesh Narayanan R., Saravana Kumar G., Computing the tensile behaviour of tailor welded blanks made of dual-phase steel by neural network-based expert system, *International Journal of Computer Integrated Manufacturing*. 25(2): 158-176, 2012. IF : 1.071
25. Abhishek T. Dhumal, Ganesh Narayanan R., Saravana Kumar G., Simulation based expert system to predict the tensile behaviour of tailor welded blanks, *International Journal of Advanced Manufacturing Systems*. 13(1): 159-172, 2011.
26. Veerababu K., Ganesh Narayanan R. and Saravana Kumar G., An expert system to predict the deep drawing behaviour of tailor welded blanks, *Expert Systems with Applications*. 37: 7802-7812, 2010. IF: 2.908
27. Pandithevan, P. and Saravana Kumar, G., Finite element analysis of a personalized femoral scaffold with designed microarchitecture, *Journal of Engineering in Medicine - Proceedings of the Institution of Mechanical Engineers - Part H*, 224(7): 877-889, 2010. IF: 0.951
28. Saravana Kumar G. and Sahasrabudhe A. D., Design optimization of fan impeller by using feature-based CAD and flow solver, *Int. J. Modelling & Simulation*, 30(1): 73-79, 2010. IF: 0.276
29. Pandithevan P. and Saravana Kumar G., Personalised bone tissue engineering scaffold with controlled architecture using fractal tool paths in layered manufacturing, *Virtual and Physical Prototyping*, 4(3): 165-180, 2009. IF: 1.000
30. Pandithevan P. and Saravana Kumar G., Reconstruction of subject specific human femoral bone model with cortical porosity data using macro-CT, *Virtual and Physical Prototyping*, 4(3): 115-129, 2009. IF: 1.000
31. Veerababu K., Ganesh Narayanan R. and Saravana Kumar G., An expert system based on artificial neural networks for predicting the tensile

- behavior of tailor welded blanks, *Expert Systems with Applications*, 36: 10683 - 10695, 2009. IF: 2.908
32. Saravana Kumar G., Pandithevan P. and Ambatti A., Fractal raster tool paths for layered manufacturing of porous objects, *Virtual and Physical Prototyping*, 4(2): 91-104, 2009. IF: 1.000
33. Saravana Kumar G., Kalra P. K. and Dhande S. G., Hybrid computation using ANN, GA and classical optimization for b-spline curve and surface fitting, *Int. J. Hybrid Intelligent Systems*. 1(4): 176-188, 2004. IF: 0.795
34. Saravana Kumar G., Kalra P. K. and Dhande S. G., Direct layered manufacturing of point sampled geometry, *Int. J. Manufacturing Technology & Management*, 6(6): 534 - 549, 2004. IF: 0.125
35. Saravana Kumar G., Kalra P. K. and Dhande S. G., Curve and surface reconstruction from points: an approach based on self-organizing maps, *Applied Soft Computing Journal*, 5: 55-66, 2004. IF: 0.974
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36. Tandon P., Shukla M., Siva Prasad K., Saravana Kumar G., Dhande S. G., Feature based design and rapid product development of saddletree, *International Journal of Agile Manufacturing*, 4(2): 147-161, 2002. IF: 0.111