

## Journal Publications

- 27) S. Sadhu, **S. Roy**, S. C. Nandy, S. Roy: *Linear time algorithm to cover and hit a set of line segments optimally by two axis-parallel squares*. to appear in Theoretical Computer Science.
- 26) S. Sadhu, **S. Roy**, S. Nandi, A. Maheshwari, S. C. Nandy: *Two-center of the Convex Hull of a Point Set: Dynamic Model, and Restricted Streaming Model*, to appear in Fundamenta Informaticae.
- 25) S. Chakraborty, R. Pratap, **S. Roy**, S. Saraf: *Helly-Type Theorems in Property Testing*, to appear in International Journal of Computational Geometry and Applications.
- 24) S. Das, **S. Roy**, R. Sambasivan: *Fast Gaussian Process Regression for Big Data*, to appear in Big Data Research.
- 23) A. Acharya, S. C. Nandy, **S. Roy**: *Minimum Width Color Spanning Annulus*. Theoretical Computer Science. Vol. 725: 16-30 (2018).
- 22) D. Pattanayak, A. Maheshwari, S. C. Nandy, **S. Roy**, M. Smid: *Geometric Path Problems with Violations*. Algorithmica, Vol. 80: 448-471 (2018).
- 21) S. C. Nandy, S. Pandit, **S. Roy**: *Faster Approximation for Maximum Independent Set on Unit Disk Graph*. Information Processing Letters. Vol. 127: 58-61 (2017).
- 20) B. K. Bhattacharya, M. De, A. Maheshwari, S. C. Nandy, **S. Roy**: *Rectilinear Path Problems in Restricted Memory Setup*. Discrete Applied Mathematics. Vol. 228: 80-87 (2017) (invited in special issue of CALDAM 2015).
- 19) S. Banerjee, B. B. Bhattacharya, B. Bhattacharya, A. Biswas, S. Das, R. Mandal, **S. Roy**: *On Representing a Simple Polygon Perceivable to a Blind Person*. Information Processing Letters. Vol. 120: 1-5 (2017).
- 18) B. K. Bhattacharya, S. C. Nandy, **S. Roy**: *Space-efficient algorithm for computing a centerpoint of a set of points in  $R^2$* . Theoretical Computer Science. Vol. 615: 61-70 (2016).
- 17) M. De, S. C. Nandy, **S. Roy**: *Prune-and-Search with Limited Work-space*. Journal of Computer and System Sciences. Vol. 81: 398-414, 2015.
- 16) M. De, S. C. Nandy, **S. Roy**: *In-place algorithms for computing a largest clique in geometric intersection graphs*. Discrete Applied Mathematics. Vol. 178: 58-70 (2014).
- 15) J. Augustine, S. Das, A. Maheshwari, S. Nandy, **S. Roy**, S. Sarvattomananda: *Localized Geometric Query Problems*, Computational Geometry Theory and Applications. Vol. 46: 340-357 (2013).
- 14) **S. Roy**: *Near optimal algorithm for the shortest descending path on the surface of a convex terrain*, Journal of Discrete Algorithms. Vol. 15: 63-70 (2012).
- 13) J. Augustine, Q. Han, P. Loden, S. Lodha, **S. Roy**: *Energy-Efficient Shortest Path Algorithms for Convergecast in Sensor Networks*. International Journal of Foundations of Computer Science. Vol. 24: 31-50 (2013) (invited in special issue of CATS 2011).
- 12) S. Banerjee, B. B. Bhattacharya, S. Das, A. Karmakar, A. Maheshwari, **S. Roy**: *On the Construction of a Generalized Voronoi Inverse of a Rectangular Tessellation*. Transactions on Computational Science. Vol. 20: 22-38 (2013) (Invited in special issue of ISVD 2012).
- 11) M. Ahmed, A. Maheshwari, S. C. Nandy, **S. Roy**: *On number of shortest descent paths on convex*

*polyhedron*. Journal of Discrete Algorithms. Vol. 9: 182-189 (2011).

- 10) J. Augustine, B. Putnam, **S. Roy**: *Largest empty circle centered on a query Line*. Journal of Discrete Algorithms. Vol. 8: 143-153 (2010).
- 9) M. Ahmed, S. Das, S. Lodha, A. Lubiw, A. Maheshwari, **S. Roy**: *Approximation Algorithms for Shortest Descending Paths in Terrains*. Journal of Discrete Algorithms. Vol. 8: 214-230 (2010).
- 8) **S. Roy**, A. Karmakar, S. Das, S. C. Nandy: *Constrained minimum enclosing circle with center on a query line segment*. Computational Geometry Theory and Applications. Vol. 42: 632-638 (2009).
- 7) D. Bardhan, **S. Roy**, S. Das: *Optimal guard placement problem under L-visibility*, International Journal of Computational Geometry and Applications. Vol. 10: 478-484 (2009) (invited in special issue of ICCSA 2006).
- 6) **S. Roy**, S. Bhattacharjee, S. Das, S. C. Nandy: *A fast algorithm for point labeling problem*. Information Processing Letters. Vol. 109: 478-484. 2009.
- 5) A. Karmakar, **S. Roy**, S. Das, *Fast Computation of smallest enclosing circle with center on a query line segment*. Information Processing Letters. Vol. 108: 343-346 (2008).
- 4) G. K. Das, **S. Roy**, S. Das, S. C. Nandy: *Variations of base station placement problem on the boundary of a convex region*. International Journal of Foundations of Computer Science. Vol. 19: 405-427 (2008).
- 3) **S. Roy**, D. Bardhan, S. Das: *Base station placement on boundary of a convex polygon*. Journal of Parallel and Distributed Computing. Vol. 68: 263-275 (2008).
- 2) **S. Roy**, S. Das, S. C. Nandy: *Shortest monotone descent path problem in polyhedral terrain*. Computational Geometry: Theory and Applications. Vol. 37: 115-133 (2007).
- 1) **S. Roy**, P. P. Goswami, S. Das, S. C. Nandy: *Optimal algorithm for a special point-labeling problem*. Information Processing Letters. Vol. 89: 91-98 (2004).