Future works will be applying the scheme for geophysical and meteorological data sets such as seismic and earthquake intensity. This can be achieved by considering the repective information i.e. starting with triangulating all 2D data then employ the scattered data scheme to produce the required surface for spatial interpolation. Starting point will be [21] and [22].

ACKNOWLEDGMENT

This research is fully supported by Universiti Teknologi PETRONAS (UTP) through a research grants: STIRF 0153AA-D91 and YUTP: 0153AA-H24 (Spline Triangulation for Spatial Interpolation of Geophysical Data). Much of the work were carried out while the first author is visiting School of Mathematical Sciences, UKM and Faculty of Information Science and Technology, UKM on 19th February 2018 until 22nd February 2018.

REFERENCES

- S.K., Lodha, and R., Franke, "Scattered Data Techniques for Surfaces," in Scientific Visualization," in Dagsthul 97 Proceedings, IEEE Computer Society Press, 2000, pp. 189-230.
- [2] R. Franke, and G.M. Nielson, "Scattered data interpolation of large Sets of scattered data," *Intl. J. Numerical Methods in Eng.*, vol. 15, pp. 1691-1704, 1980.
- [3] R. Franke, "Scattered data interpolation: tests of some methods," *Math. Comput.*, vol. 38, pp. 181–200, 1982.
- [4] R. Franke, and G.M. Nielson, Scattered data interpolation and applications: a tutorial and survey, In H. Hagen and D. Roller Ed. Geometric Modelling: Methods and Applications, Berlin: Springer, pp. 131–160, 1991.
- [5] W., Li, Y. Y. Han, and J. X. Chen, "Triangular-patch based texture synthesis over arbitrary surfaces,", *Proceedings of 2008 Congress on Image and Signal Processing*, pp. 441-445, 2008.
- [6] L., Miroslav, S., Zbynek, and V. Jan, "Smooth surface interpolation using patches with rational offsets," *Computer Aided Geomectric Design*, Preprint, Feb 2018.
- [7] A.R.Mt., Piah, T.N.T., Goodman, and K., Unsworth, "Positivitypreserving scattered data interpolation," *Lecture Notes in Computer Sciences (LNCS) 3604*, pp. 336-349, 2005.

- [8] A., Saaban, A.A., Majid, and A.R.Mt., Piah, "Visualization of Rainfall Data Distribution Using Quintic Triangular Bézier Patches," *Bulletin of Malaysian Mathematical Sciences Society*, vol. 32(2), pp. 137-150, 2009.
- [9] A., Saaban. "Parametric Interpolation to Scattered Data," PhD thesis, Universiti Sains Malaysia, Penang, Malaysia, 2008.
- [10] E.S., Chan and B.H., Ong., "Range restricted scattered data interpolation using convex combination of cubic Bézier triangles," *Journal of Computational and Applied Mathematics*, vol. 136, pp. 135-147, 2001
- [11] T.N.T., Goodman, and H.B., Said, "A C¹ triangular interpolation suitable for scattered data interpolation," *Communications in Applied Numerical Methods*, vol. 7, pp. 479-485, 1991.
- [12] T.A. Foley, and K. Optiz, *Hybrid cubic Bézier triangle patches*. In T. Lyche and L.L. Schumaker (eds.), Mathematical Methods in Computer Aided Geometric Design II, Academic Press, 275-286, 1992.
- [13] L. H. T. Chang, and H. B. Said, "A C² triangular patch for the interpolation of functional scattered data," *Computer Aided Design* vol. 29(6), pp. 407 – 412, 1997.
- [14] K.W., Brodlie, M.R., Asim and K., Unsworth, "Constrained visualization using Shepard interpolation family," *Computers and Graphics Forum*, vol. 24(4), pp. 809-820, 2005.
- [15] V. Skala, "RBF Interpolation with CSRBF of Large Data Sets", Procedia of Computer Science, Volume108, , pp. 2433-2437, 2017
- [16] G. Farin, "Triangular Bernstein-Bézier patches," Computer Aided Geometric Design, vol.3, pp. 83-127, 1986.
- [17] G. Farin, Curves and Surfaces for CAGDesign: A Practicle Guide, 5th ed., C. Palmer, Ed., San Diego, USA: Morgan Kaufmann, 2001.
- [18] https://www.quora.com/What-is-a-polygon-in-gaming.
- [19] https://stackoverflow.com/questions/31191790/b%C3 %A9ziertriangles-and-n-patches
- [20] http://www.wamit.com/manualv7.2/wamit_v72manualch10.html.
- [21] Thota Sivasankar, Dheeraj Kumar, Hari Shanker Srivastava, Parul Patel, Advances in Radar Remote Sensing of Agricultural Crops: A Review, International Journal on Advanced Science, Engineering and Information Technology, Vol. 8 (2018) No. 4, DOI:10.18517/ijaseit.8.4.5797
- [22] Farida -, Nifatamah Makaje, Phattrawan Tongkumchum, Aniruth Phon-On, Jetsada Laipaporn, Natural Cubic Spline Model for Estimating Volatility, International Journal on Advanced Science, Engineering and Information Technology, Vol. 8 (2018) No. 4, DOI:10.18517/ijaseit.8.4.3107