

Interpolation Methods

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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27 December 2019



Learning Objectives



Learning Objectives

Interpolation methods



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Interpolation methods

- ▶ **Inverse Distance Weighting (IDW)**



Learning Objectives

Interpolation methods

- ▶ Inverse Distance Weighting (IDW)
- ▶ **Triangulated Irregular Network (TIN)**



System Requirements



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- ▶ **Ubuntu Linux OS v 16.04**



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- ▶ **QGIS v 2.18**



Pre-requisites



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- ▶ **QGIS interface**



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- ▶ **QGIS interface**
- ▶ <https://spoken-tutorial.org>



Example for Demonstration



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- ▶ **Data files required for this tutorial are provided in the Code files link**



Example for Demonstration

- ▶ **Data files required for this tutorial are provided in the Code files link**
- ▶ **Please download and extract the contents of the folder**



About Interpolation



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- ▶ **Interpolation is a method to create continuous surface from discrete points**



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- ▶ **Inverse Distance Weighting (IDW)**



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About Interpolation



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- ▶ **Interpolation Plugin** is used to create interpolated raster from **Point layer**



IDW Interpolation



IDW Interpolation

- ▶ **Inverse Distance Weighting method gives weights to sample points**



IDW Interpolation

- ▶ **Inverse Distance Weighting** method gives weights to sample points
- ▶ **It is used for interpolating data such as temperature, rainfall, population etc**



TIN Interpolation Method



TIN Interpolation Method

- ▶ **TIN** is used to create a surface formed by triangles



TIN Interpolation Method

- ▶ **TIN** is used to create a surface formed by triangles
- ▶ **This is based on nearest neighbor point information**



TIN Interpolation Method

- ▶ **TIN** is used to create a surface formed by triangles
- ▶ This is based on nearest neighbor point information
- ▶ **TIN method is commonly used for elevation data**



Summary



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Interpolation methods

- ▶ **Inverse Distance Weighting (IDW)**
- ▶ **Triangulated Irregular Network (TIN)**



Assignment

- ▶ **Create IDW Interpolated map for Air Stations layer with SO2 attribute**



About the Spoken Tutorial Project

- ▶ Watch the video available at https://spoken-tutorial.org/What_is_a_Spoken_Tutorial
- ▶ It summarises the Spoken Tutorial project



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Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



Forum for specific questions

- ▶ Questions in THIS Spoken Tutorial?
- ▶ Visit <https://forums.spoken-tutorial.org>
- ▶ Choose the minute and second where you have the question
- ▶ Explain your question briefly
- ▶ The Spoken Tutorial project will ensure an answer

You will have to register to ask questions



Acknowledgement

Spoken Tutorial project is supported by

- ▶ **National Mission on Education through ICT (NMEICT)**
- ▶ **Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)**

MHRD, Government of India

