

### Annexure-A

Post Name	Essential Qualification	Desirable qualification and Experience	Additional Information
Scientist SC (Geospatial Data science) Five year term and extendable on contractual basis	1. M.E/M.Tech/M.Sc. in Geospaital Technology/Sciences (Remote Sensing & Geographic Information System/ Geomatics/ Geoinformatics/ Spatial Information Technology/ Geospatial Technology/ Geoinformatics & Surveying Technology/ Remote Sensing and Geomatics/ Geoinformatics and Remote Sensing or equivalent) OR Computer Science and Engineering/ Information Technology or equivalent in First Class with good knowledge of Geospatial.  <b>AND</b>  B.E/ B.Tech/B.Sc. in Electronic and Telecommunication Engineering or equivalent/ Civil Engineering or equivalent or Computer Science and Engineering/ Information Technology or equivalent or Geo-informatics/ Geomatics or equivalent in First Class.	Good Working experiece in GeoWeb service/ Spatial Decision Support System, Internet of Thing/ Artificial Intelligence/ Deep Learning/ Big Data Analytics etc. for Geospatial data. Good knowledge of C++, Java, RDBMS for RS & GIS applications 2. Knowledge in web GIS using Geoserver, Mapserver, UML, XML, open layers, JQuery and free/open source will be an added advantage. 3. Working experience in Digital Image Processing/spatial modeling/Hyperspectral/Micro wave satellite image processes/automation	Work on automatic feature extraction/recognition, Geospatial Big data analysis, etc.  To support work of PRSC. Job profile may also require frequent field visits.

Indicative tools, and skills for AI/ML/ BigData and Geoanalytic Scientist requirement.

AI/ ML / Subject Lines	ML Tools
<ul style="list-style-type: none"> <li>• <b>Programming Languages (Java, R, C, C++, Python)</b></li> <li>• <b>Linear algebra, Calculus, Statistics</b> (concepts of Matrices, Vectors, and Matrix Multiplication, Naive Bayes, Gaussian Mixture Models, and Hidden Markov Models etc.)</li> <li>• <b>Applied Math and Algorithms</b> (Gradient Descent, Convex Optimization, Lagrange, Quadratic Programming, Partial Differential equation, and Summations.)</li> <li>• <b>Neural Network Architectures</b></li> </ul> <p><b>In addition to the above skills candidate should equipped with subject knowledge (Remote Sensing &amp; GIS, Geo-analytics)</b></p>	<ul style="list-style-type: none"> <li>• <b>TensorFlow</b></li> <li>• <b>Spark and Hadoop</b></li> <li>• <b>R Programming</b></li> <li>• <b>Apache Kafka</b></li> <li>• <b>Weka</b></li> <li>• <b>MATLAB</b></li> <li>• <b>Google Cloud ML Engine</b></li> <li>• <b>Amazon Machine Learning</b></li> <li>• <b>PytorchJupyter Notebook</b></li> <li>• <b>IBM Watson</b></li> </ul>