农业与资源环境信息工程专题

本期导读

➤ 前沿资讯

1．FAIRsFAIR项目：FAIR数据中心，致力于解决欧洲数据文化的变化

2．Sentinel Hub自定义脚本大赛

➤ 学术文献

1．数据的价值——卡塔尔地质测绘项目

2．统计东非缩小气候数据集

3．用于分布式地理空间数据的开源Web应用

更多资讯 尽在农业专业知识服务系统:http://agri.ckcest.cn/

➤ 前沿资讯

1．FAIRsFAIR: THE FAIR data hub addressing the data culture change in Europe（FAIRsFAIR项目：FAIR数据中心，致力于解决欧洲数据文化的变化）

简介：在过去的十年中，数据密集型研究和开放式科学已成为科研常态。为了实现这种透明的、数据密集型科学的新范例，欧洲开放科学云通过联合现有的，分散在各学科和欧盟成员国之间的科学数据基础设施为170万欧洲研究人员和7000万专业人员提供用于储存、管理、分析的虚拟环境。根据欧盟委员会H2020计划资助的FAIRsFAIR项目内容，将在36个月内整体发展和实现基于FAIR（可查找、可访问、可互操作、可重复使用）原则的学术质量数据管理、流程、标准和指标的知识基础设施。

来源：The UK Digital Curation Centre (DCC)

发布日期：2019-04-15

全文链接：http://www.dcc.ac.uk/news/fairsfair-fair-data-hub-addressing-data-culture-change-europe

2．Sentinel Hub custom script contest（Sentinel Hub自定义脚本大赛）

简介：ESA and the EU are looking for new innovative ideas and scripts for the Sentinel Hub EO Browser. The EO Browser offers data from Copernicus Sentinel and ESA missions, with tools to visualise, analyse and process that wealth of data. The Sentinel Hub Custom Script Contest is a remotely run hackathon engaging data scientists, remote sensing scientists, students (from high school to university), and the general public worldwide to produce and share interesting (and new) algorithms to process Earth Observation data. The contest ends on 5 May 2019 and is open to global participation.

来源：欧洲宇航局(ESA)

发布日期：2019-03-26

全文链接：https://sentinels.copernicus.eu/web/sentinel/news/-/article/sentinel-hub-custom-script-contest

➤ 学术文献

1．The Value of Data—The Qatar Geologic Mapping Project（数据的价值——卡塔尔地质测绘项目）

简介：The State of Qatar is in a period of rapid development, modernization, and population growth. One of the most important factors influencing the long-term success and sustainability of future development is a comprehensive understanding of the region's geologic regime, geotechnical conditions, natural resources, and environmental constraints. To obtain this understanding, the Ministry of Municipality and Environment (MME) of the State of Qatar has undertaken the Qatar Geological Mapping Project (QGMP). The project was developed with strategic foresight to compile and utilize existing subsurface data

collected as part of its massive infrastructure and development projects. Recently, the MME, in consultation with Gannett Fleming Inc. (GF) and the United States Geological Survey (USGS) concluded the data collection and analysis phase (Phase I) of the two-phase QGMP. Phase I included: the development of a comprehensive geotechnical relational database (GRDB) populated with data digitized from more than 13,000 subsurface data logs; a detailed data quality analysis and distribution assessment; an extensive gap analysis and needs assessment; and careful design of the geologic mapping and subsurface investigation programs for the next phase of the project. The comprehensive GRDB will allow the MME, other government agencies, and their representatives, the ability to quickly search, query, and assess available geological and geotechnical data for use in site evaluations, project planning, and decision making.

来源：Geo-Congress 2019

发布日期：2019-04-15

全文链接：http://agri.ckcest.cn/file1/M00/06/6A/CsgkOFy2sHmAIt3rABaX7r-EhlY236.pdf

2．Statistically downscaled climate dataset for East Africa（统计东非缩小气候数据集）

简介：For many regions of the world, current climate change projections are only available at coarser spatial resolution from Global Climate Models (GCMs) that cannot directly be used in impact assessment and adaptation studies at regional and local scale. Impact assessment studies require high-resolution climate data to drive impact assessment models. To overcome this data challenge, we produced a station based climate projection (precipitation and maximum and minimum temperature) for Ethiopia, Kenya, and Tanzania using observed daily data from 211 stations obtained from the National Meteorological Agency of Ethiopia and international databases. Moreover, 26 large-scale climate variables derived from the National Centers for Environmental Prediction reanalysis data (19612005) and second generation Canadian Earth System Model (CanESM2, 19612100) are used. Statistical Down-Scaling Model (SDSM) is used to produce the required high-resolution climate projection by developing a statistical relationship between the large- and local-scale climate variables. The predictors are analysed more than 16458 times and we provided 20 ensembles for the current (19612005) and future (20062100, under RCP2.6, RCP4.5, and RCP8.5) climate.

来源：Scientific Data

发布日期：2019-04-15

全文链接：http://agri.ckcest.cn/file1/M00/06/6A/CsgkOFy2rg-AbWyIABKAyAXASeo044.pdf

3．An open source web application for distributed geospatial data exploration（用于分布式地理空间数据的开源Web应用）

简介：The number of online data repositories is growing and they are becoming increasingly difficult to navigate. Data are scattered among different repositories, or hidden on personal

or institutional servers. To access data, users must search extensively and rely on site-specific tools. These hurdles substantially inhibit data findability and accessibility; in particular, those in the long tail of data. We developed an open source web application, Spatial Data Hub, that is a geospatial data index, connected to remote Internet sources. It allows simultaneous display and comparison of disparate datasets on a single map. It aims to promote all data equally and provide the flexibility to connect to any storage system, effectively making long-tail datasets as visible as those in large, established repositories. Its low barrier of entry allows scientists and organizations to easily add data throughout the research process; enhancing transparency, openness and reproducibility. This flexibility and functionality makes Spatial Data Hub a novel platform for researchers to promote their work, develop new hypotheses and create new collaborations.

来源：Scientific Data

发布日期：2019-02-12

全文链接：http://agri.ckcest.cn/file1/M00/06/6A/Csgk0Fy2rT2APk4aABD3nSw9hSU171.pdf