## **Career Development Centre**



Date: 5th October 2020

## NOTICE ONLINE - QGIS Training Report - VAT-78

Career Development Centre in association with Department of Mechanical Engineering provides an opportunity to our students to learn QGIS Software.

Details as follows:

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|----------------------|--|--|--|
| Branch/Year          | CE 3rd Year  Career Development Centre & Department of Civil Engineering |  |  |
| Organizer Department |  |  |  |
| Date                 | 13th October-2nd November 2020   |  |  |
| Course Duration      | 40 Hours   |  |  |
| Timings              | 4:00 PM – 6:00 P.M.  |  |  |
| Course Coordinator   | e Coordinator Mr. Vibhor Sharma & Ms. Mansha Swami                       |  |  |
| Venue                | Online on MS TEAM  |  |  |

### Note:

- 1. The training will run in online mode (till further notice) on MS Team. Students will be assigned batch (as per the schedule) and will be added to their respective MS Teams.
- 2. It is suggested to all the above-mentioned students to attend the training (detailed schedule will be shared in your respective batch on MS Team).
- 3. The Department concerned shall notify the details about timings and MS Team batch of the training sessions. In case of any query please contact the Career Development Centre, DIT University.

**Head-Career Development Centre** 

To:

All Dean / Director / Head of Department

Chairman

Chancellor

Vice Chancellor

Pro Vice Chancellor

Manager Admin / HR Department

Head -CDC

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# VAT 78- Technical Training-QGIS for B.Tech-Civil Engineering Students (Online)

Course: -B. Tech.CE-3rd Year

Venue:- Vishveshwarya-101

Conducted By- Cetpa Infotech Pvt. Ltd.

Date:-13<sup>th</sup> October - 2<sup>nd</sup> November 2020

Duration:-40 Hrs.

Timings:- 4:00 PM-6:00 PM

### Description

o you need to use GIS and spatial analysis in your work but don't know how to apply these analyses and don't know software to use for GIS-related work?

Do you find GIS books and QGIS manuals not practical and looking for a course that takes you by hand, teach you all the concepts, and get you started on a real-life GIS project?

Quantum GIS (QGIS) is an open-source Geographic Information System that supports most geospatial vector and raster file types and database formats. The program offers wide GIS functionality, with a variety of mapping features and data editing. This enables cutting-edge, global-scale analysis and visualization.

The course provides you with all the necessary theoretical knowledge and practical skills to implement PRACTICAL GIS analysis in QGIS software starting with the basics concepts of GIS and Remote Sensing and equipping you with all necessary knowledge and skills to implement your own independent GIS and Remote Sensing analysis in great QGIS open-source software!

### Requirements

- Students need no prior knowledge of GIS or QGIS
- Computer using basics (if You know where is right mouse button You're good to go)

This fundamental course is designed to equip you with the theoretical and practical knowledge of applied GIS analysis.

### By the end of the course, you will:

- Learn how to install QGIS and work with QGIS and its plug-ins: Semi-Automatic Classification Plug-in (SCP), TrendsEarth, Google Earth Engine plug-in, SAGA and OTB processing toolboxes etc
- Feel confident and completely understand the basics of GIS and Remote Sensing and its main components,
- Learn all basics and core GIS data operations (vector and raster data as well as satellite imagery) and learn how to conduct GIS projects.

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# **CETPA INFOTECH PVT. LTD. DEHRADUN**

#### ISO 9001:2015 CEERTIFIED

| 1. | Course | Introduct | ion   |
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| 1. | CUUISE |           | 14111 |

1.1. Foreword

1.2. Preparing Exercise Data

2. Module: The Interface

2.1. Lesson: A Brief Introduction

2.2. Lesson: Adding your first layer

2.3. Lesson: An Overview of the Interface

3. Module: Creating a Basic Map

3.1. Lesson: Working with Vector Data

3.2. Lesson: Symbology

4. Module: Classifying Vector Data

4.1. Lesson: Attribute Data

4.2. Lesson: The Label Tool

4.3. Lesson: Classification

5. Module: Creating Maps

5.1. Lesson: Using Map Composer

5.2. Assignment 1

6. Module: Creating Vector Data

6.1. Lesson: Creating a New Vector Dataset

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14.2. Analyze the data

14.3. Final Map

15. Module: Forestry Application

15.1. Lesson: Forestry Module Presentation

15.2. Lesson: Georeferencing a Map

15.3. Lesson: Digitizing Forest Stands

15.4. Lesson: Updating Forest Stands

15.5. Lesson: Systematic Sampling Design

15.6. Lesson: Creating Detailed Maps with the Atlas Tool

15.7. Lesson: Calculating the Forest Parameters

15.8. Lesson: DEM from LiDAR Data

15.9. Lesson: Map Presentation

## 16. The QGIS processing guide

16.1. Introduction

16.2. An important warning before starting

16.3. Setting-up the processing framework

16.4. Running our first algorithm. The toolbox

16.5. More algorithms and data types

16.6. CRSs. Reprojecting

16.7. Selection

16.8. Running an external algorithm

16.9. The processing log

16.10. The raster calculator. No-data values

16.11. Vector calculator

16.12. Defining extents

## 17. Module: Using Spatial Databases in QGIS

17.1. Lesson: Working with Databases in the QGIS Browser

17.2. Lesson: Using DB Manager to work with Spatial Databases in QGIS

17.3. Lesson: Working with spatialite databases in QGIS

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# Annexure - II

# Value added course Details (Academic Year: 2020-21)

VAT Course Name: Q-GIS Training

VAT Code: VAT 78

Duration in Hours: 40

Number of Students Enrolled: 69

Number of Students Completed: 65

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| Number of Students Completed: 65 Care Development Dehradur   |                         |                |          |               |                          |
|--|-------------------------|----------------|----------|---------------|--------------------------|
| Grades: G= GOOD; S = Satifactory; P = Poor; W = Withdraw University, Dehrad  Student ID Student Name Program/Course Year Passing Grade |                         |                |          |               | erry, Don                |
| Student ID   |                         | Program/Course | Year     | Passing Grade |                          |
| 190101906  |                         | BTCE           | 3rd Year | S             | 1                        |
| 190101931  |                         | BTCE           | 3rd Year | G             | 1                        |
| 190101927  | VISHAL RAWAT            | BTCE           | 3rd Year | S             |                          |
| 190101929  | MOHD AMAAN AZEEM        | BTCE           | 3rd Year | S             |                          |
| 180101015  | ALI ABID                | BTCE           | 3rd Year | G             |                          |
| 190101908  | MD SAYED FARHAN         | BTCE           | 3rd Year | G             |                          |
| 190101924  | PRAVESH UNIYAL          | BTCE           | 3rd Year | S             |                          |
| 190101923  | SAIF MALIK              | BTCE           | 3rd Year | S             |                          |
| 180101022  | SPARSH PARMAR           | BTCE           | 3rd Year | S             |                          |
| 190101925  | SACHIN NEGI             | BTCE           | 3rd Year | Р             |                          |
| 190101933  | SHUBHAM RAWAT           | BTCE           | 3rd Year | G             |                          |
| 180101031  | SURYA PRATAP            | BTCE           | 3rd Year | S             |                          |
| 190101932  | MUKUL NEPANE            | BTCE           | 3rd Year | S             |                          |
| 180101008  | JAIKRIT SHARMA          | BTCE           | 3rd Year | G             |                          |
| 190101926  | LALIT GAUR              | BTCE           | 3rd Year | G             |                          |
| 180101034  | VIKUL .                 | BTCE           | 3rd Year | S             |                          |
| 190101903  | DIKSHANT BISHT          | BTCE           | 3rd Year | S             |                          |
| 190101907  | GAURAV KATHAIT          | BTCE           | 3rd Year | G             |                          |
| 190101904  | ARYAN KUMAR RAJ         | BTCE           | 3rd Year | S             |                          |
| 190101922  | ABHISHEK SHARMA         | BTCE           | 3rd Year | S             |                          |
| 170101024  | NALINESH KUMAR          | ВТСЕ           | 3rd Year | G             |                          |
| 190101930  | JITENDRA SINGH NEGI     | BTCE           | 3rd Year | S             |                          |
| 190101920  | RAJAT PUROHIT           | BTCE           | 3rd Year | S             |                          |
| 190101928  | SUMIT SINGH PUNDIR      | ВТСЕ           | 3rd Year | G             |                          |
| 180101041  | NEETLAKSH MANOHAR ARUN  | ВТСЕ           | 3rd Year | P             |                          |
| 190101921  | AYUSH BISHT             | ВТСЕ           | 3rd Year | S             |                          |
| 190101910  | KANISHK PUNDIR          | BTCE           | 3rd Year | S             |                          |
| 180101050  | VIJAYANT SRI MAHIKA     | ВТСЕ           | 3rd Year | S             |                          |
| 190101909  | ABDUL AZIZ              | ВТСЕ           | 3rd Year | G             |                          |
| 180101004  | ANURAG KUMAR            | BTCE           | 3rd Year | G             |                          |
| 180101021  | SIDDHARTH SRIVASTAVA    | <del></del>    | 3rd Year | S             |                          |
| 180101035  | AKSHAT BISHT            |                | 3rd Year | S             |                          |
| 190101902  | SUMIT SINGH SINWAL      | BTCE           | 3rd Year | Р             |                          |
| 180101033  | SHOEB MALIK             | BTCE           | 3rd Year | G             |                          |
| 180106025  | HARSHIT SAHNI           |                | 2.4 //   | S             | 11/                      |
| 190101905  | RAVISHANKAR SINGH RAWAT |                | 3rd Year | S             | 4                        |
| 190101911  | AKANKSHA RAWAT          |                | 3rd Year | G             |                          |
| 190101900  | H YUVAN SUHATH          |                | 3rd Year | S             | חטאה אמח                 |
| 180101044  | SIDDHANT KATHAYAT       |                | 3rd Year | P 7.0         | Dehrau                   |
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| 180101027 | 1111111 OE 37 1111   | BTCE | 3rd Year | S |
| 180101002 | AKSHAY BHATIA  | BTCE | 3rd Year | S |
| 180101032 | PAWAN TIWARI   | BTCE | 3rd Year | G |
| 180101010 | LAKSHAY DAYAL  | BTCE | 3rd Year | G |
| 180101026 | ANUJ KOTWAL  | BTCE | 3rd Year | S |
| 180101036 | MANAV RENU   | BTCE | 3rd Year | S |
| 180101016 | LAKSHAY SHARMA   | BTCE | 3rd Year | S |
| 180101001 | MAYANK DHIMAN  | BTCE | 3rd Year | G |
| 190102905 | KM. PRATIBHA   | BTCE | 3rd Year | G |
| 180101017 | NITIN BHATT  | BTCE | 3rd Year | S |
| 180101043 | HIMANSHU SINGH   | BTCE | 3rd Year | S |
| 180101029 | ARJUN DEV SINGH  | BTCE | 3rd Year | G |
| 180101006 | ASHUTOSH NAUTIYAL  | BTCE | 3rd Year | G |
| 180101042 | HIMANSHU RAI   | BTCE | 3rd Year | S |
| 180101030 | PRINCE SAINI   | BTCE | 3rd Year | S |
| 180101019 | ARPAN AGRAWAL  | BTCE | 3rd Year | G |
| 180101023 | ANIRUDDHA REANG  | BTCE | 3rd Year | S |
| 180101014 | AMIT SINGH RAWAT   | BTCE | 3rd Year | S |
| 180101007 | ATUL LOHANI  | BTCE | 3rd Year | G |
| 180101046 | ROHIT S BISHT  | BTCE | 3rd Year | S |
| 180101024 | ASMIT KUMAR SINGH  | BTCE | 3rd Year | S |
| 180113033 | SACHIN GANDASH   | BTCE | 3rd Year | G |
| 180101018 | HEMANT CHAURASIA   | BTCE | 3rd Year | G |
| 180111038 | SARITA BISHT   | BTCE | 3rd Year | S |
| 180101028 | MEGHA KUKRETI  | BTCE | 3rd Year | S |
| 180101009 | RIYA MITTAL  | BTCE | 3rd Year | S |
| 180101048 | VIKASH DEVLAL  | BTCE | 3rd Year | G |
| 180101012 | RAMANDEEP PHARSWAN   | BTCE | 3rd Year | G |
| 180101037 | DIVYANSHU RAWAT  | BTCE | 3rd Year | S |

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