radio-tracking.eu

Workshop in Freiburg im Breisgau, Germany

Important:

Start: 9th March 2019 13:00
End: 11th March 2019 12:00

Target Participants: Users of radio tracking equipment who are interested in automation of the process

Location: Leo-Wohleb-Str. 6, 79098 Freiburg, Germany

Costs: 450€ (excl. 19 % VAT if applicable) including catering

Short Project Description:

The goal of the open-source project radio-tracking.eu is to monitor the movements of animals using lightweight VHF tags and low-cost receivers. It is designed for an easy assembly and operation.

Short Workshop Description:

The workshop consists of four main sessions: introduction, software, hardware and field use. As well as two optional sessions: A receiver assembly session and an actual field test. In the introductory session we will learn the basics of radio telemetry and its automation. Moving on we discuss the advantages and disadvantages of several hardware setup options, followed by the software session where we will discover the features of radio-tracking.eu. The last session will be a practical exercise going through all the steps of setting up a running system for localization. During the optional assembly session we will each build our own receiver-box, which we will then track during the field test session.

For any questions, please don't hesitate to contact the radio-tracking.eu team via email (info@radio-tracking.eu) or using the good old phone: +49 761 2055 1022

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Baden-Württemberg
MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

Natur 4.0
Sensing Biodiversity

Additional March 8th: 15:00 – 18:30

15:00	18:30	Receiver box assembly session (additional cost: 100€ excl. 19 % VAT if applicable) Please bring your own material (see list) or ask us for an offer in advance, tools are supplied

March 9th: 09:00 – 18:00

09:00	12:30	Official reception Introduction to radio-tracking.eu project The physics of radio-tracking Antennas and cables
12:30	14:00	Lunch
14:00	18:00	Receivers, Raspberry Pi, USB cables Power supplies First setup of RasPi Getting to know the interface
19:00		Social gathering and dinner (not included)

March 10th: 09:00 – 18:00

09:00	12:30	Recap and delve further into the interface and its features Connecting to the RasPi, VPN, common problems Analyzing data and triangulation with R Shiny App
12:30	14:00	Lunch
14:00	18:00	Planning and installing Quick test of a system on the Kanonenplatz above the city

Optional March 11th: 09:00 – 12:30

09:00	12:30	Construction and demonstration of two masts for triangulation in the field

Frequently Asked Questions

Catering:

- as stated in the program
    - Friday: snacks, coffee, tea, water
    - Saturday: lunch, snacks, coffee, tea, water
    - Sunday: lunch, snacks, coffee, tea, water
    - Monday: snacks, coffee, tea, water
- vegetarian food (if not wanted, check need meat to survive), local dishes, Black Forest cake, coffee, tea, water

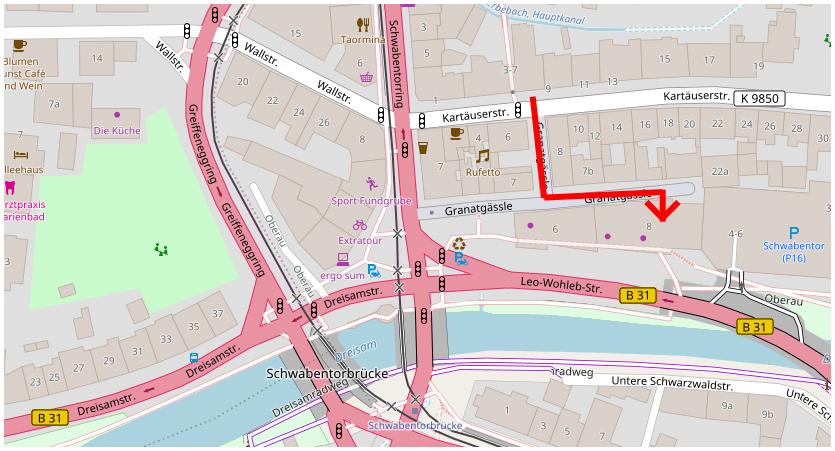
Equipment required (if not available, arrangements are possible):

- Laptop computer with R and Logger App installed (see https://radio-tracking.eu/analysis) Please contact us if you encounter any problems!
- Raspberry Pi 3
- RTLSDR Dongle
- SD Memory Card 32 GB
- Power bank

Receiver Assembly:

- A detailed parts list can be found at the end of this document.
- Please contact us if you would like us to provide the parts.

Location:
Leo-Wohleb-Str. 6, 79098 Freiburg, Germany



Accommodation is self organized:

- Jugendherbe Freiburg: http://www.jugendherberge.de/de-de/jugendherbergen/freiburg%20international9/portraet
- Hostel Freiburg: http://www.blackforest-hostel.de/ (right around the corner)
- Hotel am Rathaus – right in the medieval city centre: http://www.am-rathaus.de/

Driving & Parking:

- grüne Plakette: https://www.umwelt-plakette.de/en.html
- winter tires are required in winter conditions in Germany
- parkade right next door – expensive though – (27€ the day): http://www.freiburger-stadtbau.de/parkhaeuser/schwabentorgarage.html
- no parking on site

Airport:

- Basel Mulhouse Freiburg (BSL): https://www.euroairport.com/en/

Train Station:

- Freiburg main station: www.bahn.de

Payment:

- SEPA transfer: DE02 5001 0517 5420 6165 30
- Tax Identification Numbers required for excluding the taxes for companies within the EU, except German companies

Figure 1: Results of 30 Minutes Tracking

Registration

To register please complete the following form and send it to info@radio-tracking.eu
Each participant must register individually!
A service fee of 200€ will be charged in case of non-attendance, unless we are able to fill the spot.

Name:

Company:

Arrival time and date:

Payment (cash/SEPA transfer)

Equipment available/required:

Meat required to survive:

VAT Number for companies based within the EU:

Email address allowed to share with other participants (yes/no):

Additional receiver box assembly (yes/no):

Monday field presentation (yes/no):

Parts needed for receiver box

- Waterproof outdoor equivalent to B&W Type 1000
- Raspberry Pi 3 (B or B+)
- 32 GBs SD Card (smaller will do too)
- Aluminium case for Raspberry Pi 3
- USB to micro USB (approx. 30cm)
- Powerbank 20A (2x2A)
- 1-4 RTLSDR Stick(s)
- 1-4 USB Type A extension cable(s) (40-50cm)
- Optional:
    - Huawei Hotspot
    - USB to micro USB (approx. 30cm)

For a compilation of the material, feel free to contact us – we will send you an offer. We also offer ready made boxes, including all material needed (Masts, Antennas, Antenna Cables, etc.).