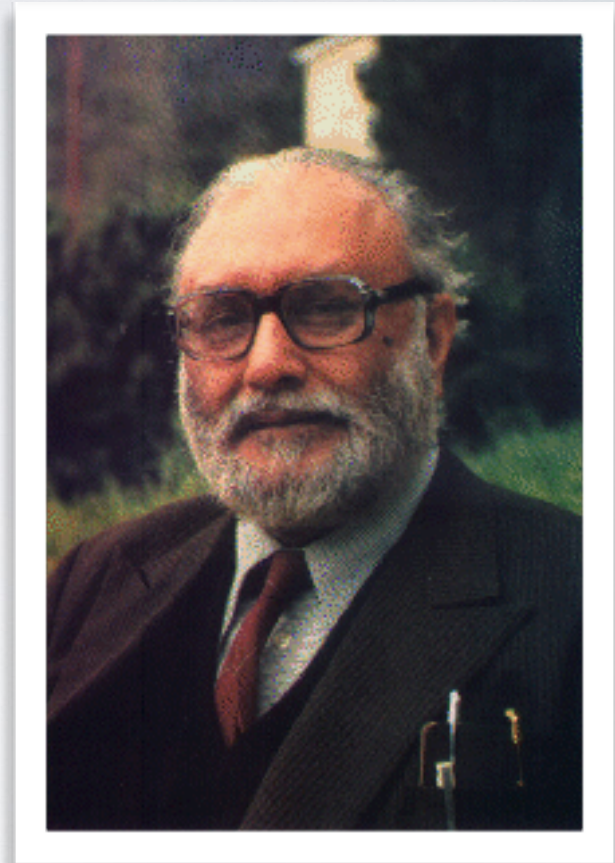# WELCOME TO THE
JOINT ICTP-IAEA SCHOOL ON LORA ENABLED RADIATION AND ENVIRONMENTAL MONITORING SENSORS

WHAT IS THE ICTP

- the Abdus Salam International Centre for Theoretical Physics was founded in 1964, by the late Nobel Laureate Abdus Salam

- receives the majority of its funding from the Italian government and is administered by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Atomic Energy Agency (IAEA)

ICTP'S MANDATE

□ The ICTP has the mandate

   □ to foster the growth of advanced research in physics and mathematics, especially among researchers from developing countries

   □ to create an international forum for the exchange of scientific information through courses, workshops and seminars

"Scientific Thought is the common heritage of mankind"

ICTP FACILITIES

- In its campus ICTP

    - accommodates on average of 400 scientists each day

    - houses one the largest libraries in the field of physics and mathematics in Europe, with more than 64,000 books, 400 printed journals and more than 3,500 e-journals
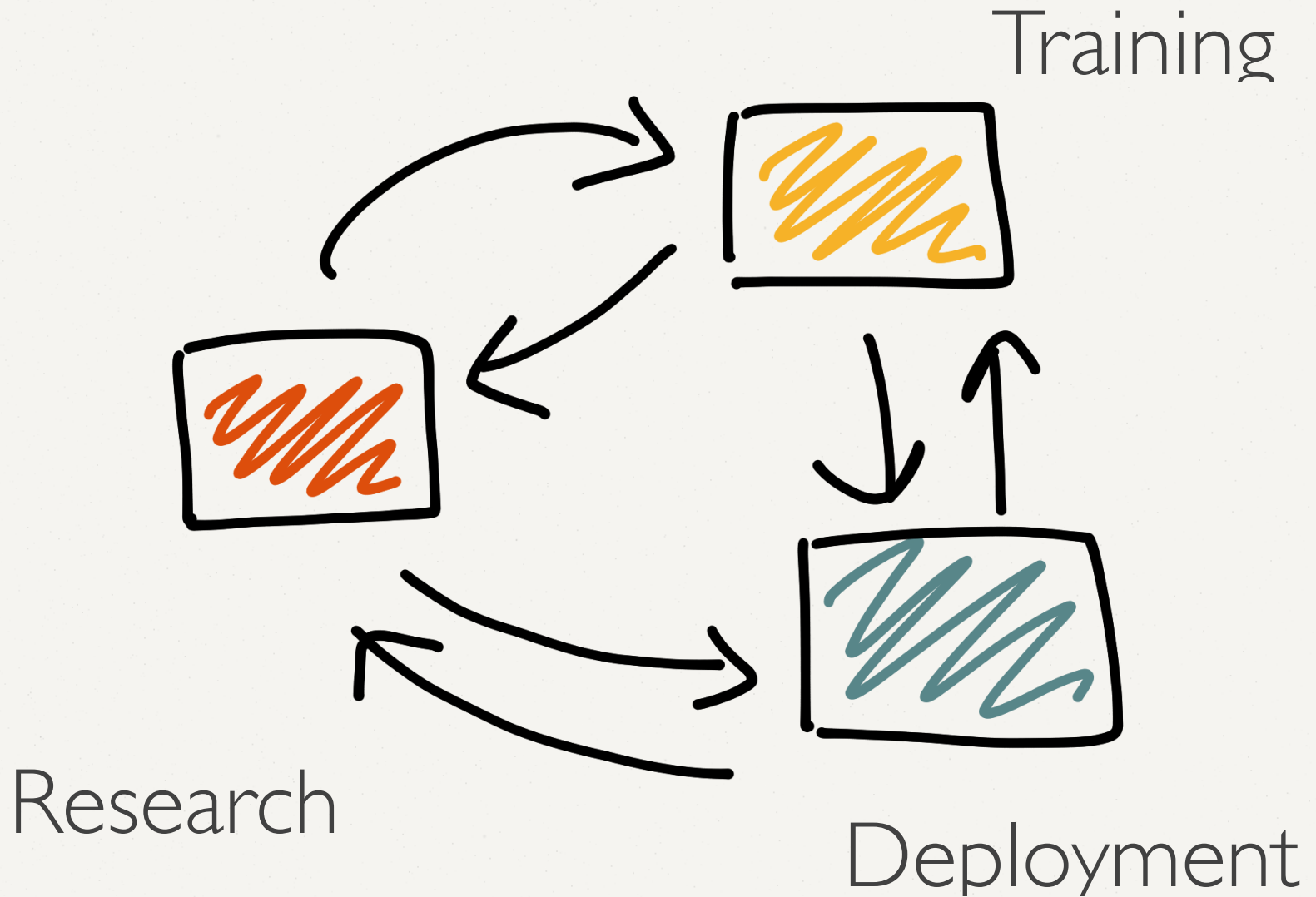
ICTP'S STATISTICS

- The ICTP hosts more than 6,000 scientists each year

  - +60 training activities per year

- More than 150,000 visits since 1964

  - 60% from developing countries

  - 40% from developed countries

  - 188 nations represented

T/ICT4D LAB

- Provide reliable and sustainable wireless **solutions** to help foster science and research in Developing Countries.

- Organize **training activities** on state-of-the-art wireless technologies.

- Setup **collaborations** with academic partners and with international organizations.
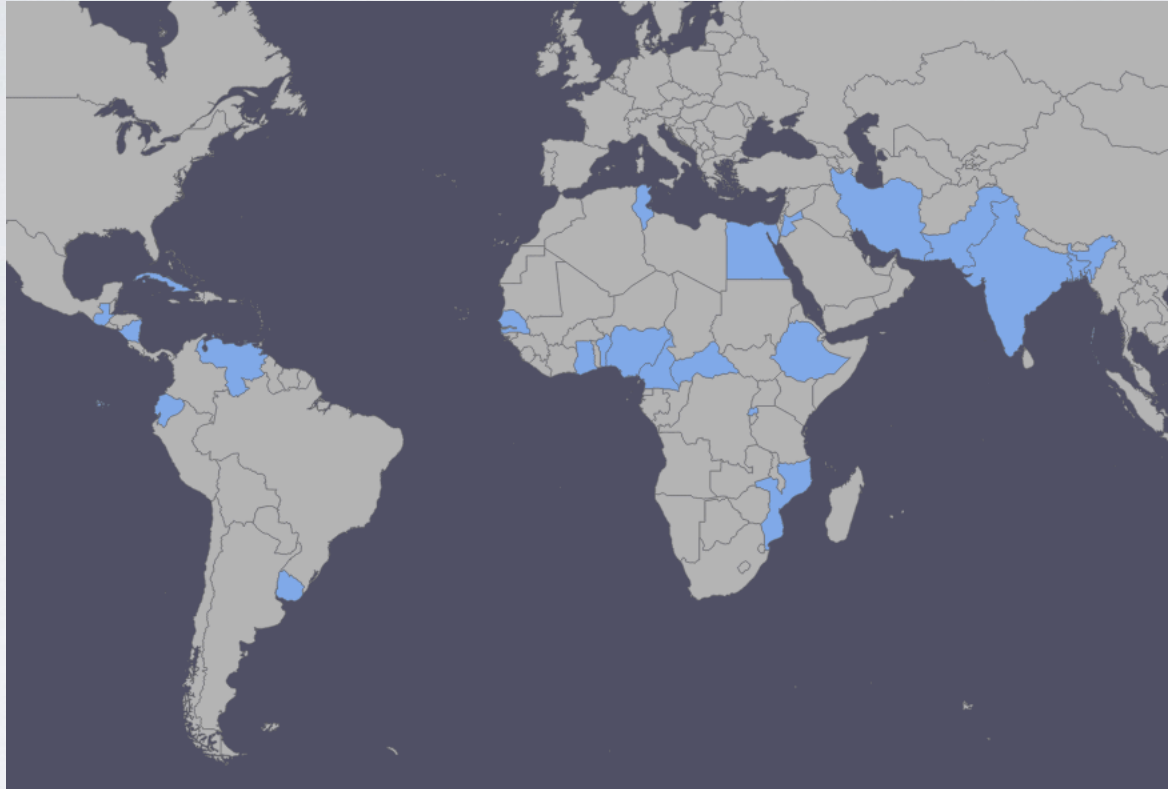
T/ICT4D LAB

Training

Research

Deployment

APPLICANTS

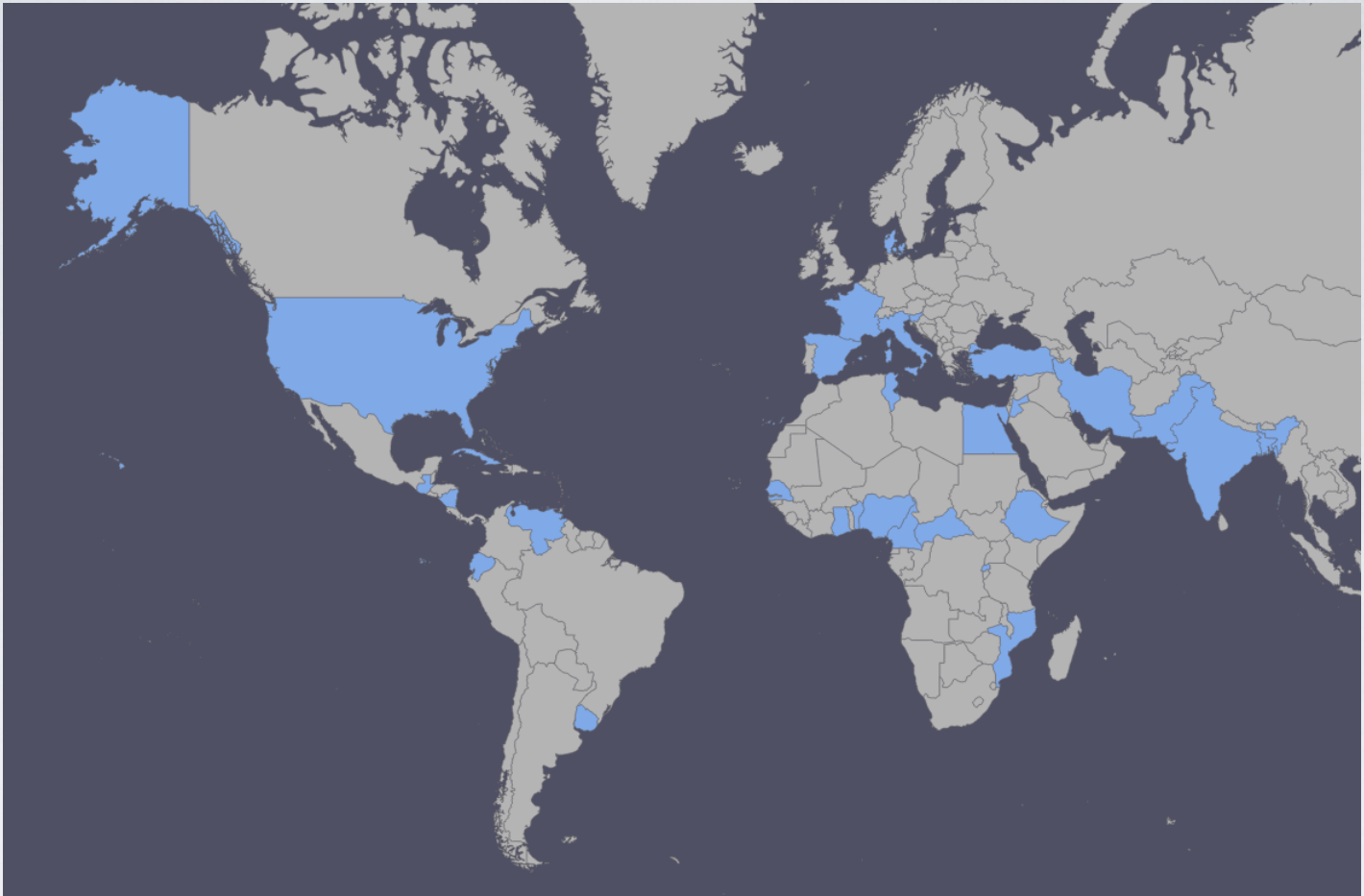Requests for Participation: 289

WHERE DO WE COME FROM?

31 participants from 22 different countries (from Bangladesh to Venezuela)

WHERE DO WE COME FROM?

Including the lecturers, we come from 30 different countries!

WHERE DO WE COME FROM?

Argentina

Bangladesh

Cameroon

CAR

Cuba

Denmark

Ecuador

Egypt

France

Ghana

Guatemala

India

Iran

Italy

Jordan

Mozambique

Nicaragua

Nigeria

Pakistan

Rwanda

Senegal

Slovenia

Spain

Tunisia

Turkey

UK

USA

Uruguay

Venezuela

FIRST WEEK

Monday
Tuesday
Wednesday
Thursday
Friday

} Intro to IoT, Intro to Radiation Monitoring, Python, PCB Design, Intro to Telecommunications, Link planning, Security+Ethics+Privacy, 3D printing

SECOND WEEK

Monday

Tuesday

Wednesday

Thursday

Friday

} microPython, Wireless Options for IoT, MQTT, LoRaWAN, TheThingsNetwork

THIRD WEEK

Monday
Tuesday
Wednesday
Thursday
Friday
} Influx, IAEA Radiation Shield, Introduction to Data Analytics, Powering, Sensors, Data mapping and visualization

ITU, UNIDO, GCF

Case Studies Presentations

Wednesday
Thursday
Friday
} 10-15 minutes, to stimulate discussion

SigComm and non-SigComm

VENUE

THANKS

- Directors

  - Iain Darby (NSIL IAEA)
  - Maria Liz Crespo (ICTP)
  - Marco Zennaro (ICTP)

PHILOSOPHY

Tell me and I forget,
teach me and I may remember,
involve me and I learn.

— Benjamin Franklin

RULES

1) ~~Try to~~ be on time! GGH is 1 min from SciFabLab

2) Attend at least 90% of the lectures + labs to receive the Diploma

3) **Bring your laptop**

4) Feel free to ask questions!

LAB

- Wireless Network

  - SSID: FabLab

  - Password: MakerFaire

- Workshop's Website

  - http://wireless.ictp.it/school_2018/

WEBSITE

Tuesday April 24th

Morning session

9:00-10:00 Introduction to Radiation Monitoring
👥Iain Darby, IAEA

10:00-10:30 Coffee Break

10:30-11:30 Introduction to Radiation Monitoring
👥Iain Darby, IAEA

11:30-12:30 Python Lab
👥Jacopo Rigosa,SISSA

12:30-14:00 Lunch

Afternoon Session

14:00-16:00 Particles and Detectors
👥 Fulvio Tessarotto, INFN

TELEGRAM

https://telegram.org/

□ Workshop's private group

    □ last minute information

    □ social interaction

    □ polls

NEWS

- Get together tomorrow at Leonardo Building Cafeteria, 7:30 pm

- Petra's office is number 213 at the second floor of the Fermi Building

- Medical Office is at the ground floor of the Fermi Building

WHAT ABOUT YOU?

NAME
COUNTRY
ORGANIZATION
INTEREST IN IOT