JINR experience in human capacity building

D. Kamanin,
Head of the Department of International Cooperation

FE-2019 Belgrade, Serbia
12-13 November 2019
Dubna – Island of stability

Location
Dubna, Moscow region

Partner network
800 destinations in 62 countries

Personnel
5000 total staff, 1200 researchers

Annual budget
200 million USD
JINR comprises 7 Laboratories, each being comparable with a large institute in the scale and scope of investigations performed.

Dzhelepov Laboratory of Nuclear Problems

Veksler and Baldin Laboratory of High Energy Physics

Bogoliubov Laboratory of Theoretical Physics

Frank Laboratory of Neutron Physics

Flerov Laboratory of Nuclear Reactions

Laboratory of Information Technologies

Laboratory of Radiation Biology
The main fields of activity

**Student programmes**
- BS, MS and PhD theses at JINR
- International Student Practices
- Summer Student Programme
- Conferences for young scientists and specialists

**Outreach programmes**
- Scientific Schools for physics teachers at JINR and CERN
- Visits to the JINR labs for students
- Open resource edu.jinr.ru
- Science festivals

**Skill improvement**
- Advanced practices
- Attachment of degree-seekers
- Engineering training
- Professional course
- Foreign language course

To ensure the effective use of JINR facilities and expertise
To train highly qualified scientists and engineers from the Member States
To bring up-to-date scientific knowledge to the general public and to highlight recent scientific achievements of JINR
Programmes for school students

Advanced training programmes for school students from:

- Israel March
- Germany June
- Czech Republic July

1-day visits to JINR labs and Museum for 30 groups of school students annually
International Schools for Teachers’ 2019

- Summer School at JINR and Dubna University (July) 23 participants from 4 countries
- School for teachers from the Czech Republic and Slovakia at JINR (June-July) 16 participants
- Autumn School at CERN (November) 24 participants from 3 countries
International Student Practice’ 2019
105 participants from 11 countries

Coming up in December

Stage 1
South Africa

Stage 2
Azerbaijan, Bulgaria, Czech Republic, Poland, Romania, Slovakia

Stage 3
Belarus, Serbia, Cuba, Chile, South Africa

Stage 4
Egypt

Summer Student Programme
56 students from 16 countries

Duration 6-8 weeks. Financed by JINR. Since 2014.

Training for engineers from WTU and partner universities
Moderated by Warsaw University of Technologies
Duration from 3 week up to 3 month
Programmes for university students

Engineering practicum at JINR
infrastructure & guidance development

Dubna school of engineering
Training of highly-qualified engineers

Joint education programmes with leading Russian universities

Information Center
Open source of video lectures by JINR staff members on:

- Experimental high energy physics
- Detectors in the nuclear and high energy physics
- Heavy ions and the synthesis of heavy elements
- Mega-science project NICA
- Quantum Computation and Quantum Information

Educational Project “Virtual Laboratory”

Over 500 lectures

Partners from 12 countries are involved

edu.jinr.ru/vlabs
JINR Expertise for Member States and Partner Countries (JEMS)

First 10 training programmes from April 2017 to February 2019
116 participants from 27 countries

Participants 1-10
- Russia: 22
- South Africa: 16
- Vietnam: 10
- Serbia: 9
- Egypt: 6
- Bulgaria: 5
- Hungary: 5
- Rwanda: 5
- Czech Republic: 4
- China: 4
- AAEA: 3
- Cuba: 3
- Mongolia: 3
- South Korea: 3
- Sri Lanka: 3
- Belarus: 2
- Botswana: 2
- Chile: 2
- Germany: 1
- Lebanon: 1
- Moldavia: 1
- Italy: 1
- Iraq: 1
- Oman: 1
- Poland: 1
- Romania: 1
- Zambia: 1

JEMS Plan 2019
- X: February, 4-8
- XI: April, 1-5
- XII: June, 3-7
- XIII: September, 9-13
- XIV: December, 2-6 (in Russian)

Generic day-by-day JEMS Programme in Laboratories:

Day 1. Heavy Ion Physics and Accelerator Technologies,
Day 2. Neutron Applications and Nano-World;
Day 3. Theory, Information, Education;
Day 4. Life Sciences on the Earth and Space;

Social programme, customized items
... and builds future!