



Latvian Space Centre “VIRAC”



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Latvian Space Centre

Research

- Research
- Projects
- Publications
- Conferences



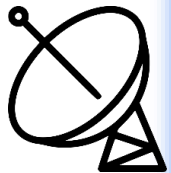
Education

- Study courses
- Special courses
 - Seminars
- Summer schools



- Testing
- Laboratories
- Prototyping
- Production

Infrastructure



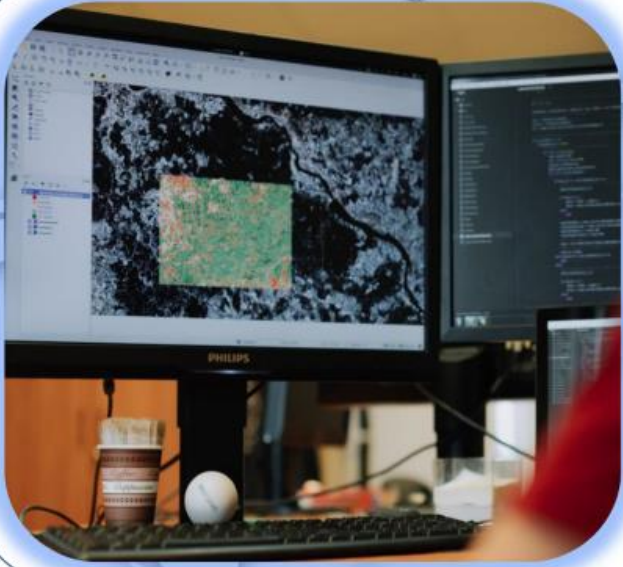
- Patents
- Services
- Innovations
- Technology transfer

Commercialization



About VIRAC:

1. VIRAC is an internationally recognized and outstanding Latvian space research and education center, which conducts high-quality research in astronomy and satellite communications, develops space research hardware and software, and provides educational services in the fields of space technology and science.
2. VIRAC aims to become a global research service provider in the field of space technology research, thus speeding up the international growth of companies in Latvian space industry.
3. Number of people: 76 technical, engineering, research and administrative personnel

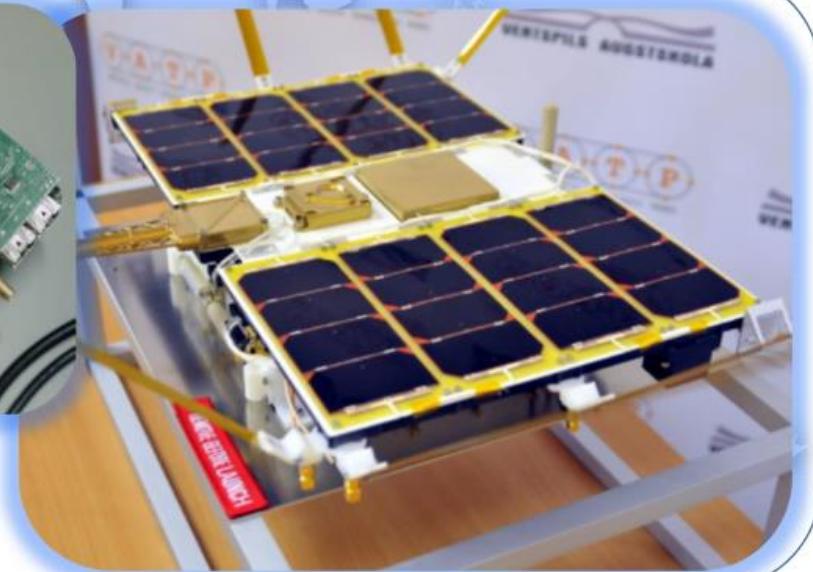
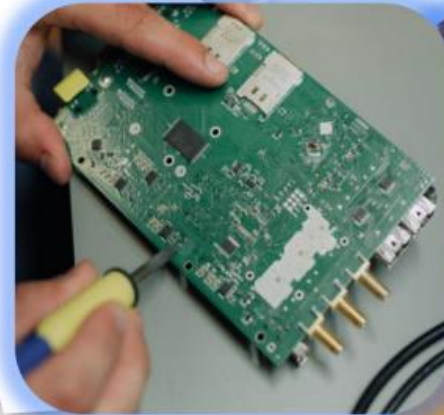


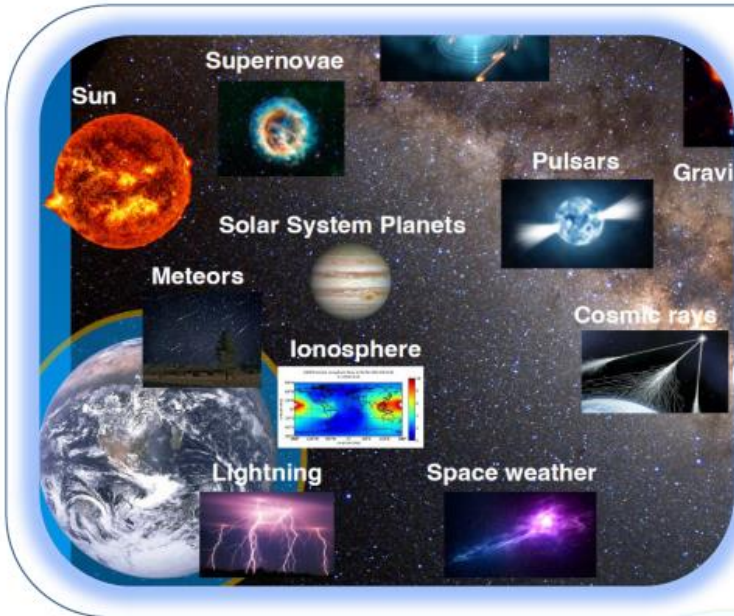
Remote Sensing and Signal Discrete Processing

- Developing specialized methodologies for translating remote sensing data into information products;
- Researching and testing data processing techniques in remote sensing (Forest industry; Environment protection; Urban development; Agriculture);
- Developing software.

Electronics and Satellite Technology

- Satellite engineering and testing
- Advanced antenna technologies
- Cyber-physical and embedded systems
- Smart technologies, renewable energy sources, rapid prototyping and additive manufacturing





Astronomy and Astrophysics

- Interstellar and circumstellar medium
- Physics of solar atmosphere
- Active galaxy nuclei
- Small bodies of the solar system
- Polarized radiative transfer



High Performance Computing

- Radio astronomical data processing and their methods (single-dish observations; VLBI; radar-VLBI; complementary radar-VLBI and SLR)
- Near space objects research (Planetary Studies (Comets, Asteroids); Earthquake Research (satellites, space debris))
- Research in engineering physics



Latvian Cern Tier 2 Federated Network including VIRAC infrastructure

VIRAC as one of the sub-networks in the Latvian Tier 2 CERN CMS network with such activities:

- In cooperation with SIA "Dati Group" and RTU, Tier 2 IP table of VIRAC sub-network was created.
- VLAN configuration according to Tier 2 requirements (using infiniband switches).

Participation in the Folding@home Baltic Cern Group

Folding@home

Team Monthly | Team | Donor | OS Stats

Donor: tier2.hpc-net.lv_HPC_VIRAC

Date of last Work Unit	2020-11-17 05:44:47
Total score	9,399,121
Total WUs	8,294
Overall rank (if points are combined)	116,257 of 2,920,005
Active clients (within 50 days)	0
Active clients (within 7 days)	0

Contributions by team

Team	CERN Baltic Group
Score	9,399,121
WUs	8,294
Date of last work unit	2020-11-17 05:44:47
Active clients (within 50 days)	0
Active clients (within 7 days)	0

apps.foldingathome.org/teamstats/team263738.html

Folding@home

Team 263738 stats

Fri Mar 04 14:20:02 GMT 2022

Name CERN Baltic Group
Score 3030970677
WUs 279902
Rank 422

Members

Rank	Team Rank	Name	Credit	WUs
1216	1	tier2.hpc-net.lv_National_Library_of_Latvia	1685173527	150594
4382	2	tier2.hpc-net.lv_RTU_HPC_centre	581381243	31563
7507	3	tier2.hpc-net.lv_DATI_Group	346350076	28995
21165	4	KTU-KK	112694780	18971
24408	5	hpc.rtu.lv	95826192	13265
26831	6	KTU-IFB	85016050	6534
30308	7	KTU_IF_VR_Lab	73365959	4222
68915	8	VilniusUniversity_HPC_Sauletekis	23726216	2649
120787	9	tier2.hpc-net.lv_HPC_VIRAC	9399121	8294
137339	10	KTU-IF	7282242	7424
161155	11	KTUIFR	5243633	2125
177305	12	tier2.hpc-net.lv - Riga Technical University	4256869	3918
413271	13	tier2.hpc-net.lv - University of Latvia	467017	386
434420	14	tier2.hpc-net.lv - DATI Group	400349	425
458872	15	tier2.hpc-net.lv - National Library of Latvia	336607	323



THANKS!



Do you have any questions?
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