

ÇANAKKALE ONSEKİZ MART UNIVERSITY

Çanakkale Astrophysics Research Center (ÇARC)

SWOT ANALYSIS

Education, training, research and management activities were examined from different perspectives and the strengths, weaknesses, opportunities and threats of the research center and new opportunities were evaluated in line with the corporate goals of our university. Evaluation was carried out within the scope of:

- Compatibility of corporate mission, vision, goals and objectives,
- Corporate quality policy and predetermined strategic goals,
- Research activities,
- Evaluation of academics,
- Student/academician communication,
- Academic, administrative and support units.

Strengths

- In general, all employees within the scope of ÇARC are committed to the corporate mission, vision, goals and objectives of the university.
- Trying to implement corporate strategies in line with the university's corporate mission, vision, goals and objectives by all staff members of the center.
- The presence of academic staff with the necessary competence in their field who benefit from ÇARC and conduct research, educational activities and science-society activities.
- Our academics have the capacity to produce qualified academic publications and works on their subjects.
- Our academics produce qualified projects on their subjects and have the potential to produce new projects.
- Having academic national and international connections.
- The number of publications and citations per faculty member is at the expected level
- Availability of library and e-library facilities in the fields of astronomy, astrophysics and space sciences related to ÇARC.
- Despite limited physical facilities, thanks to our successful event policy, science-society-based activities that will contribute to education and training are sufficient throughout the year and at a level that will stand out within the scope of our university.

- ÇARC-affiliated academic staff should have sufficient training in transferring information to interested parties (students, teachers, academics, etc.) about astronomy and space.
- Faculty members working within the scope of the center must have experience in carrying out both national and international astronomy and space science camps, TÜBİTAK projects, and science society activities in their field, and have the necessary equipment and knowledge to ensure the sustainability of these activities.
- As stated in the TÜBİTAK 2023 Universities Competency Analysis report, thanks to the scientific outputs produced, being at the forefront both within our university and among the universities in our country in the fields of astronomy-astrophysics and space-planet science, which are within the scope of ÇARC activities and research.
- Collaborations between ÇARC and Istanbul University Observatory Application and Research Center.
- Providing scholarships to undergraduate and graduate students from TÜBİTAK projects carried out by faculty members affiliated with ÇARC and conducting research within the scope of the center.

Weaknesses

- There are urgent and long-pending problems in physical spaces (especially the central building and telescope dome buildings), which will affect research and science-society activities at a high level.
- High maintenance and repair costs of observation instruments in the observatory.
- Failure to carry out repair, update and maintenance work for equipment that malfunctions or needs to be maintained due to budget problems, or research being negatively affected by these processes due to the fact that these works take a long time.
- Prolonged repair of malfunctions in laboratory equipment (telescopes, CCD cameras, IT equipment, etc.) and interruptions in research opportunities due to the impact of physical conditions.
- Staff problems for young scientists (especially in recent years, the inability to recruit research assistants, experts and lecturers in the fields of astronomy, astrophysics and space sciences - especially the Faculty of Science, Department of Physics, Astrophysics Department and Space Sciences and Technology Departments).
- Due to the distance of ÇARC's Ulupınar Observatory from the central campuses and its location outside the city, there are delays in basic maintenance and repair interventions.
- There is no technical staff in the Ulupınar Observatory affiliated with ÇARC.

Opportunities

- To have academic staff who can produce projects in different fields, have sufficient knowledge, equipment and experience in their fields, are recognized in the national and international academic environment, benefit from qualified ÇARC and support research, education and training activities.
- Increasing interest in astronomy and space sciences in society.
- Having significant experience and team in science-society activities, dissemination of science to society and university-society meeting.
- Different institutions and organizations of the society need the support of the university.
- Institutions such as DPT, TÜBİTAK, National Agency, Southern Marmara Development Agency (GMKA) support community-oriented projects and the ÇARC team has the potential to benefit from these supports.
- To have the knowledge to contribute to the region for space awareness within the framework of the goals set for the establishment of the Turkish Space Agency.
- Having one of the most suitable observation conditions in the region in the field of observational astronomy and astrophysics.
- Planning and improvement efforts within the scope of the "Space Science Center" project prepared by the ÇARC management team and presented to the senior management

Threats

- The number of young scientists is low and willing candidates cannot be offered employment opportunities.
- Lack of support personnel such as experts and technical personnel.
- Budget problems to ensure sustainability.
- Lack of technical equipment, technicians, machinery equipment and consumables.
- Rapid renewal of technology and the need for frequent renewals and the inability to make updates.
- Lack of sufficient diversity to find solutions to technical and technological problems experienced in the regional industry.
- Serious renovation and maintenance problems of the buildings in the Observatory, which will stop research.
- Research is frequently interrupted due to the fact that the telescopes and cameras at the Observatory have been used for more than 10 years and their maintenance and repairs are not carried out on time or at all.