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Üniversite Kampüs Yapılarının Erişilebilirliği: Niğde Ömer Halisdemir Üniversitesi Üzerinden Bir Değerlendirme*

Seval YILMAZ[1], İpek FİTOZ[2]**

[1]Niğde Ömer Halisdemir Üniversitesi, Mimarlık Fakültesi, İç Mimarlık Bölümü, 51000, Niğde
[2]Mimar Sinan Güzel Sanatlar Üniversitesi, Mimarlık Fakültesi, İç Mimarlık Bölümü, 34000, İstanbul

[1]https://orcid.org/0000-0001-8327-4768
[2]https://orcid.org/0000-0001-5104-196X
**Sorumlu yazar: sevalberk@ohu.edu.tr

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ÖZ

Genel nüfusa oranla özel ihtiyaçları olan yaşlı ve engelli bireylerin oranındaki artışın da gösterdiği gibi, toplumun her üyesi yaşamlarının bir noktasında özel gereksinimlere ihtiyaç duyabilir. Bu durum, fiziksel çevrenin tüm bireylerin ihtiyaçlarını karşılayacak şekilde oluşturulması gereksinimini vurgulamaktadır. Uygun bir fiziksel ortamın yaratılması ve inşa edilen ortamların, özel gereksinimleri ve sınırları olanlar için daha fazla değişiklik veya iyileştirmeye gerek kalmadan tüm bireyler tarafından özerk ve rahat bir şekilde kullanılması, erişilebilirliğin sağlanması için gereklidir. Her bireyin erişebilmesi gereken temel insan haklarından biri de eğitimdir. Erişilebilirlik, sosyal, entelektüel ve kişisel gelişim üzerinde önemli bir olumlu etkiye sahip olan üniversite kampüs ortamını ve yapılarını da kapsamalıdır. Kampüsler, küçük bir şehrin sosyo-kültürel ortamına ve kullanıcı çeşitliliğine sahip olmaları nedeniyle iyileştirilmesi gereken temel alanlardır. Bu çalışma, fiziksel kısıtlılığı olan kişilerin üniversite kampüslerinde karşılaştıkları zorlukları ele almıştır. Örneklem olarak seçilen Niğde Ömer Halisdemir Üniversitesi Merkez Kampüsünde bir idari bina, bir eğitim binası ve bir kongre ve kültür merkezinin erişilebilirliği, ADA standartları ve ülkemizde kullanılan Türk standartları (TS) kullanılarak değerlendirme formları hazırlanmıştır. Örneklem grubu olarak belirlenen 3 yapı bu yöntemle değerlendirilerek mevcut sorunları tespit edilerek yapılardaki problemlerin giderilebilmesi için öneriler getirilmiştir.

Accessibility of University Campus Buildings an Evaluation on Nigde Ömer Halisdemir University

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ABSTRACT

As the increase in the proportion of elderly and disabled people with special needs compared to the general population shows, every member of society may require special needs at some point in their lives. This emphasizes the need for the physical environment to be built to meet the needs of all individuals. The creation of a suitable physical environment and the autonomous and comfortable use of the built environments by all individuals, without the need for further modifications or improvements for those with special needs and limitations, is essential to ensure accessibility. Education is one of the fundamental human rights that every individual should have access

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to. Accessibility should also extend to the university campus environment and structures, which have a significant positive impact on social, intellectual and personal development. Campuses are the main areas that need to be improved as they have the socio-cultural environment and user diversity of a small city. The difficulties that people with physical disabilities encounter on college campuses were the subject of this study. Using ADA standards and Turkish standards (TS) that are employed in our nation, assessment forms were created for the accessibility of an administration building, an education building, and a congress and culture center at the Niğde Ömer Halisdemir University Central Campus, which was chosen as a model. Using this procedure, the three buildings chosen as a sample group were assessed, present issues were noted, and recommendations were made to fix the issues.
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1. Introduction

According to the estimated data published by the World Health Organization, approximately 16% of the world population lives with a temporary or permanent disability (WHO, 2024). In our country, according to the report published by the Ministry of Family and Social Services in April 2023, the ratio of individuals with at least one disability to the total population was determined as 6.9%. With these increasing rates in the world and in our country, it is mentioned that there is a large population that is disabled and inaccessible (EYHGM Disability and Elderly Statistics Bulletin, 2023).

The main purpose of concepts such as equal access, universal design, design for all is to provide equal opportunities for all. All products and spaces can be seen as part of a chain and a chain is only as strong as its weakest link (Aslaksen, 1995). The concepts of design for all and accessibility have attracted more attention in recent years and efforts are being made to ensure that every individual has equal opportunities to participate in society. The position of each individual in society is significantly affected by accessibility. With the 20th century, the popularity of the concepts of inclusive design, universal design and design for all has increased and continues to increase with initiatives in different disciplines. In this context, it is seen that there has been an increase in accessibility solutions with the studies carried out/implemented. This has led to the rapid development of regulations and improvements to ensure that all user groups can use public institutions, private buildings, educational institutions, sports and entertainment facilities, social and cultural spaces and complex structures such as shopping centers equally and easily.

The ability to move freely between spaces is recognized as a fundamental human right. Every person, regardless of age, physical condition, different abilities and limitations, should have access to all the spaces and places they may need in their daily lives. It is recognized that differences in human abilities such as cognition, vision, hearing and speech, body, hand and arm functions can affect the usability of products, services and spaces. However, the built environment and accompanying services are designed for standard users. For this reason, structured spaces and places may not meet the needs and desires of all user groups. Spaces that all members of society have the right to use, including people with disabilities, the elderly, children, people of large or small size, people carrying loads, etc., should be accessible (Demir-Mishchenko et al., 2010).

Architectural barriers in the built environment are related to the inaccessibility of the environment. Architectural barriers refer to the physical characteristics of the building and its surroundings that restrict movements that pose a danger in the built environment with their presence, absence and design. The concept of universal design and accessibility aims to remove barriers in the built environment and ensure equal access and use of public spaces by all individuals (Evcil, 2009). Education is the most important factor in improving the quality of life of individuals with permanent or temporary disabilities and their integration into society. In pre-university educational institutions, students with disabilities have the right to receive accommodations in their educational environment to meet their needs or to receive special education tailored to their needs. However, in universities, students with disabilities are integrated into the general student population. Although many facilities are provided to students with disabilities, students with disabilities face problems related to accessibility (Lombardi and Murray, 2011).

In recent years, there have been many regulations and policies regarding barrier-free campuses and accessibility in higher education institutions. More modern, functional and egalitarian public spaces can be created by making the physical environment accessible and accessible to everyone at the campus and building scale (Ökten, 2018).

In this study, the physical barriers faced by people with temporary or permanent physical limitations while studying or working at universities were tried to be identified through research and observations. In this context, forms created through fieldwork were used to determine the accessibility of three selected sample buildings. The study emphasized that by raising awareness about people with disabilities and their impact on campus life and reducing barriers in the built environment through appropriate design, equal access can be achieved for all people.

Academic studies and workshops supporting the consideration of universal design and accessibility concepts (Ünver and Yamaçlı, 2014; Dikel, 2019; Gökdal and Ünal, 2020) are regularly conducted in Turkey (National Barrier-Free Universities Workshop Reports). There are studies on barrier-free university campuses in the literature(Çınar, 2010; Demiroğlu, Çoban and Özgür, 2016; Dişyapar and Güngör, 2015; Hilmioğlu and Seçer Kariptaş, 2021). However, the creation of the parameters used in the determination of the current situation in the method of the study, the analysis and unification of the standards, the evaluation of the accessibility of the buildings on the campus of Niğde Ömer Halisdemir University, the sample considered in the field study, and the suggestions for design improvements in this context reveal the originality of the research.

2. Theoretical Framework

Considering the possibility of being temporarily or permanently disabled at some point in our lives, there is a large population of people with disabilities and people who are hindered by the built environment. Wheelchair users, passengers carrying suitcases, parents pushing strollers may face

various obstacles in the built environment. As all these limitations are directly linked to the built environment rather than a specific medical condition, it is important to take this into account when designing these places and spaces. Although definitions of disability and disability laws vary between countries, it is emphasized that people with all kinds of limitations have different needs from other members of society and that these needs should be met without creating social exclusion.

It is crucial to comprehend the ideas of impediment, disability, and accessibility in order to guarantee accessibility in the built environment and to ensure that the designs are developed without any issues. According to the Turkish Language Association, disability is the state of being disabled, and a person is considered disabled if they have lost their physical, mental, spiritual, and social abilities from birth or later and struggle to adapt in social situations and day-to-day life (TDK, 2024). In the United Nations Convention on the Rights of Persons with Disabilities, disability is defined as people with long-term physical, mental, perceptual impairment that prevents them from participating in society under equal conditions with other individuals (United Nations General Assembly, 1993). In the Law No. 5378 published in our country, disability is defined as individuals who are affected by attitudes and environmental conditions that limit the full and effective participation of individuals with physical, mental, sensory limitations on equal terms with other individuals who make up the society (Law No. 5378 on Persons with Disabilities, 2005).

The concepts of disability and disability have been defined in different ways in many different institutions, laws and studies from past to present in the world and in our country. With the Americans with Disabilities Act (1990), which is accepted as the turning point of the disability movement, regulations were introduced to facilitate access to private and public buildings and transportation vehicles for individuals with physical limitations. This law is the most widely accepted and comprehensive regulation in the international arena.

Table 1. Distribution by disability groups registered in the data system in Turkey (Disability and Elderly Statistics Bulletin, April, 2023)

Disability Group	Number of People	The Rate (%)
Visually impaired	215.076	9.53
Hearing impaired	179.867	7.97
Speech impaired	33.686	1.49
Orthopedic disabled	311.131	13.78
Mentally disabled	385.313	17.07
Mentally and emotionally disabled	170.927	7.57
Chronic disease	917.259	40.63
Others	44.248	1.96

In the past, people with disabilities have been excluded or kept away from society. With the increase in disability awareness, the visibility of disabled people in society has also increased. The concept of disability is defined as the state of being disabled in the Turkish Language Association (TDK, 2024). Disability is a disease or a condition of being restricted that makes it difficult or hinders the actions of other individuals in the society. In the study conducted by (Koca and Yılmaz, 2017), disability conditions were classified as physical disability, visual limitation and mental disability. The Swiss Center for Customized Buildings for People with Disabilities explains disabilities as physical, mental, visual and auditory disabilities (Fink, 2000). Since different disabilities require different needs, all kinds of products, services and spaces should be designed to be accessible. Open spaces, transportation vehicles, public spaces should be designed/regulated to be accessible and accessible to all user groups with different constraints.

In recent years, higher education institutions have been organized and improved in line with the principles of lifelong learning, knowledge acquisition and innovation. Spatial transformation is an important factor in improving accessibility and teaching in higher education institutions. In this context, design improvements are made from building scale to campus-wide. Today, although comprehensive studies and arrangements are being made to ensure that individuals with disabilities can benefit from their right to education in the best way possible, fully accessible environments and spaces have still not been achieved.

3. Material and Method

Within the scope of the study, architectural barriers in university campuses and buildings, inaccessible or inappropriate campus buildings, circulation areas, accommodation areas, social areas, barriers in educational spaces constitute the subject of the research. Within the scope of the field study, Niğde Ömer Halisdemir University central campus was determined as a sample. In 1992, it started education under the name of Niğde University and has been continuing higher education as Niğde Ömer Halisdemir University since September 7, 2016. The central campus includes the Faculty of Education, Faculty of Science and Literature, Faculty of Engineering, Faculty of Economics and Administrative Sciences, Faculty of Architecture, Faculty of Communication, Faculty of Islamic Sciences, Faculty of Medicine, Faculty of Agricultural Sciences and Technologies, Faculty of Dentistry, Faculty of Fine Arts, Central Library, Congress Center, a kindergarten, Ayhan Şahenk Student Dormitory and dormitories affiliated to the Ministry of Youth and Sports (URL-1).

Figure 1. Nigde OHU central campus site plan (URL-2)

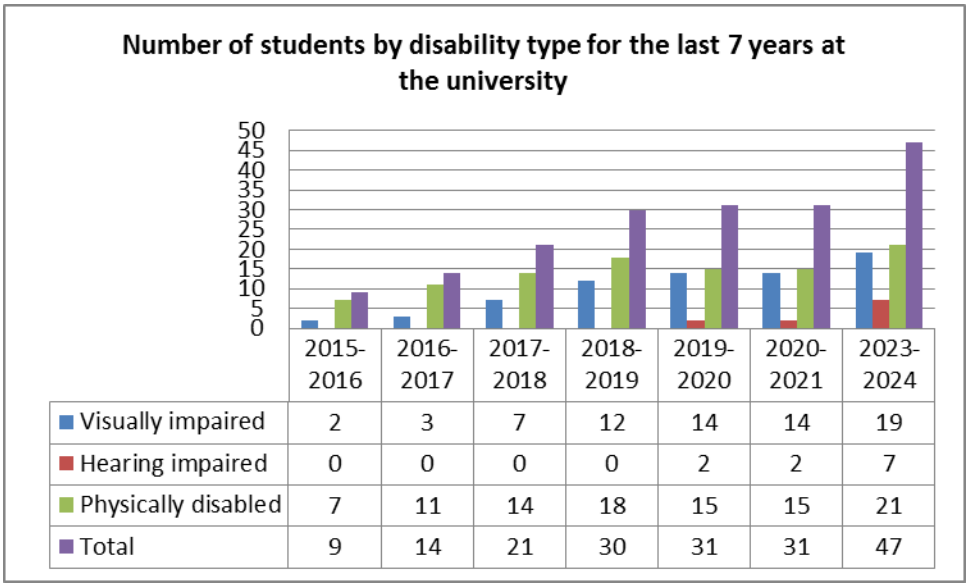
Within the scope of the research, the obstacles that wheelchair users, those who have difficulty in walking and climbing stairs, hearing and visual impairment, and individuals with any temporary or permanent limitation have been taken into consideration. In the study, the issues that should be considered in the design of barrier-free university campuses and spaces were included in order for the determined disability group to experience independent and easy education and training in university campuses and buildings. As a result of the research and evaluations, accessibility criteria were determined in university campuses. The sample of the study consists of Niğde Ömer Halisdemir University campuses and buildings. While creating the methodology of the study, TS (Turkish Standards) standards accepted in Turkey, accessibility guide including TS standards prepared by experts working in the field, and ADA (American Disability Act Standards for Accessible Design) standards adopted in the world were taken into consideration and accessibility forms were prepared.

In order to ensure the integrity and comprehensibility of the study, while creating the forms, restrictions were imposed on the types of spaces that could be examined within the research parameters. A total of 135 questions were prepared for 7 sections covering topics such as parking lots, accessible roads, sidewalks and ramps; transportation between floors, toilets; lecture halls and classrooms. After the preparation of the forms, the study area was evaluated to include the academic building (Faculty of Architecture), the administrative building (Rectorate Building) and the socio-cultural area (Cultural Center), which hosts many cultural events. In addition to the fact that these buildings are used almost every day by the staff and students working on the campus, the variables in user intensity have been the determining factor in the evaluation of these buildings in the field study.

According to the activity report published by the university in 2020, the number of disabled students enrolled at the university between 2015-2021 and the disability conditions included in the study are shown in Table 2. With the increase in disability and accessibility awareness, the number of disabled students enrolled at the University has increased. While the number of students with visual, hearing

and physical disabilities was 9 between 2015-2016, this number increased to 31 between 2019-2020. The total number of disabled students enrolled in the 2023-2024 academic year is 47.

Table 2. Number of students according to the types of disabilities at Niğde Ömer Halisdemir University (Edited according to the data taken from Niğde OHU Annual Report 2020).



	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2023-2024
Visually impaired	2	3	7	12	14	14	19
Hearing impaired	0	0	0	0	2	2	7
Physically disabled	7	11	14	18	15	15	21
Total	9	14	21	30	31	31	47

4. Findings and Discussion

Education is one of the most fundamental human rights that every individual in society should have access to. Ensuring accessibility in all educational institutions, from kindergartens to high schools, from high schools to universities, should be organized in line with the needs of all user groups. Individuals with disabilities working or studying at universities face physical and spatial limitations and are hindered by course/classroom materials and wrong attitudinal behaviors. Various environmental and cultural barriers are encountered in higher education campus and building designs. Inclusive design approach aims to ensure that the arrangements created/designed in the built environment are used by all user groups without the need for too much customization and modification.

Within the scope of the research, the accessibility of the Faculty of Architecture, Rectorate Building and Cultural Center buildings were evaluated. The fact that these three buildings have different functions and different user diversity was effective in the selection of these three buildings as a sample. While creating the methodology of the study, legislation and regulations on accessibility in Turkey and abroad were examined, and a comprehensive literature study on design for all and accessibility was conducted.

Whether disabled or not, everyone has the right to a life worthy of human dignity as well as the right to a minimum level of education and training. The right to education, which is the cornerstone of the social state approach, aims to guarantee equal access to education for everyone in society (Şişman,

2014). Since education is one of the main purposes of universities, it is very important to provide a barrier-free campus environment and infrastructure to provide equal opportunities for all students, including students with disabilities. The following broad issues were found during the study's observations and on-site inspections at the Niğde OHU Campus.

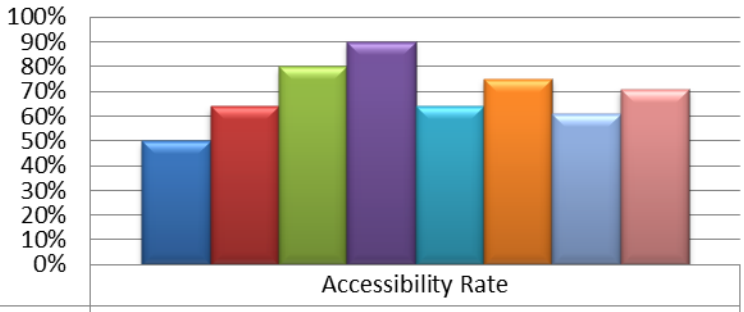
- Accessible routes
- Inadequate parking lots
- Transportation to the desired buildings (building entrances and exits)
- Freedom of movement within the building - access to different levels
- Use all equipment in buildings
- Accessible toilets
- Access to classrooms, workshops, laboratories
- Guidance and information in buildings
- Safe evacuation in emergency situations.

The evaluation forms prepared in the light of these items and with the help of existing standards were divided into seven separate sections and data were obtained, and the accessibility compliance rates of the buildings selected as a sample with different functions and user groups were determined.

4.1 Faculty of Architecture

Niğde OHU Faculty of Architecture, which started undergraduate education in 2013-2014 academic year, includes the Department of Architecture, Department of Interior Architecture, Department of Urban Regional Planning and Department of Landscape Architecture. The faculty consists of two separate buildings. The smaller building houses the administrative department (Dean's Office), while the other building contains classrooms and academician rooms. In the study, the immediate surroundings of both buildings and the accessibility of the main building, which has a high user density, were evaluated. The basement, which is located on the lower floor of the building, was not included in the evaluation because it only contains warehouses. The building has a card access entrance used by academics and a general main entrance. In the main building, there are two lecture halls, two workshops, four classrooms, a canteen and servant rooms on the ground floor; three workshops, a computer laboratory and six classrooms on the first floor, and the workplaces of the teaching staff on the second floor. Within the scope of the study, the roads extending from the parking lot and public transportation vehicles to the building entrances as well as the areas and spaces inside the building were evaluated.

Table 3. Faculty of Architecture accessibility compliance rates



	Accessibility Rate
Parking Lot	50%
Accessibility Route	64%
Sidewalks and Ramps	80%
Building Entrances and Exits	90%
İnter Floor Access	64%
WC	75%
Lecture hall, Classroom and Corridor	61%
Total	71%

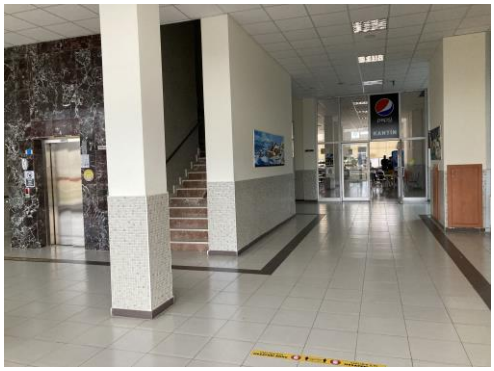


Figure 2-3-4. Faculty of Architecture accessibility arrangements; entrance, interior and WC visuals (Seval Yılmaz, 2022)

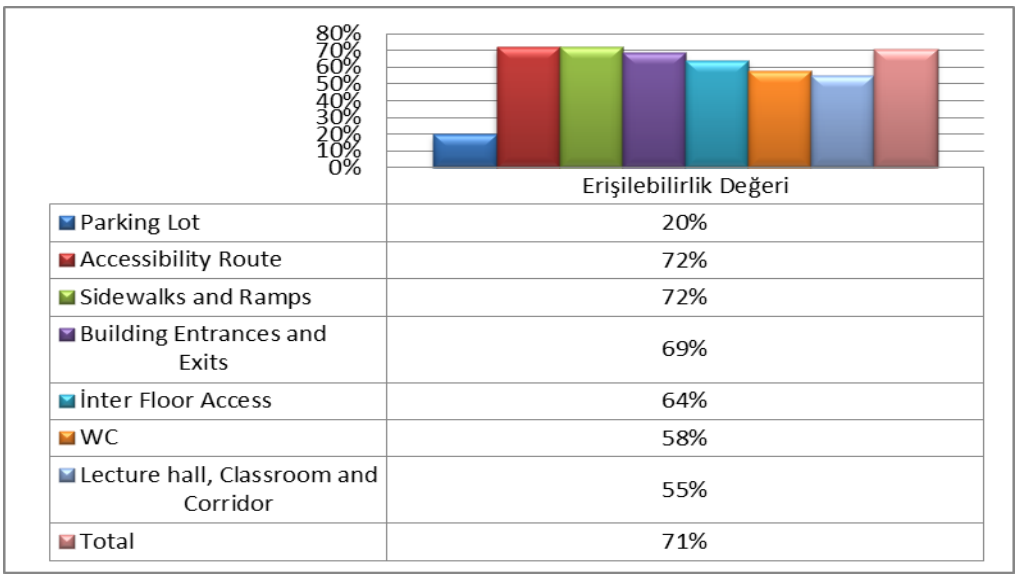
The Faculty of Architecture is among the campus's best-maintained faculty buildings, if a comparison of all the buildings is conducted. The fact that the compliance rates of the sections other than the

parking lot are above 50% shows that the building and its surroundings can be easily used by all user groups. In addition, the faculty building is used as a disabled exam center.

4.2 Nigde OHU Congress and Culture Center

The facility, which opened in 2014, consists of nine halls spread across 7993 square meters. The building on campus is also utilized by the Niğde community. The building, which has a variety and density of users, has hosted many cultural activities, meetings, seminars, panels and symposiums since the day it was put into use.

Table 4. Congress and Culture Center accessibility compliance rates



	Erişilebilirlik Değeri
Parking Lot	20%
Accessibility Route	72%
Sidewalks and Ramps	72%
Building Entrances and Exits	69%
İnter Floor Access	64%
WC	58%
Lecture hall, Classroom and Corridor	55%
Total	71%

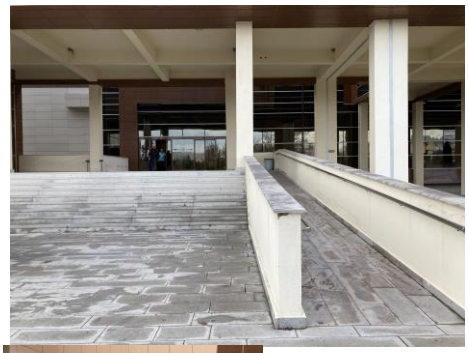


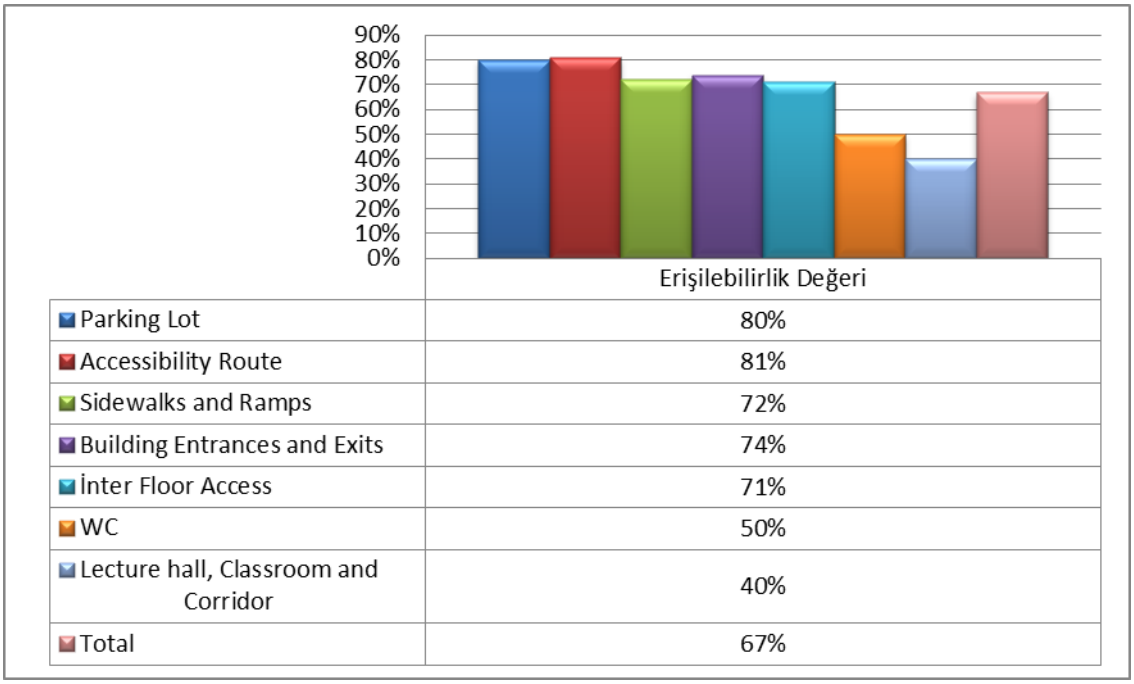
Figure 5-6-7. Congre and Culture Center accessibility arrangements; entrance, interior and WC visuals (Seval Yılmaz, 2022)

The building, which is located on the left side of the main campus entrance and has hosted many social and cultural events, was included in the sample group due to its user density and diversity. According to the evaluation results, the compliance rate of the Congress and Culture Center is 71%. The compliance rate of the parking lots located right behind the building entrance is 20%. According to a general assessment of the accessible routes and portions, the building's accessibility is in acceptable shape, with the exception of the parking lots' accessibility and its distance from public transportation. The stairs at the entrance of the building have been solved, but since the elevator has been solved inside the entrance, its visibility has been prevented. Another problem identified is that only one solution has been produced as a disabled toilet. Flexibility and accessible solutions have been considered in the designs of the halls on the first floor. Accessible spaces and areas can be provided for everyone with the improvement works to be carried out in the problematic areas and spaces identified as a result of the current situation analysis.

4.3 Nigde OHU Rectorate Building

The Rectorate building has been in service since 1993 and stands out at the entrance of the campus with its unique architectural design. The building consists of two separate structures connected by a bridge. The three-story large building was assessed as part of the study because of the variety and intensity of its users. On the ground floor of the three-storey building, there are medico-social units and ÖSYM office. The building has two entrances. However, the entrance in the center of the building has the highest user density. On the first floor of the building are the Student Affairs and Health, Culture and Sports Departments, on the second floor are the Administrative Financial Affairs and Revolving Fund Treasury. On the upper floor are the Departments of Construction Works and Information Technologies. The fact that it serves as an administrative building and that the ÖSYM office, which increases and diversifies the user density, is located in this building was effective in the selection of the sample group for the study.

Table 5. Rectorate Building accessibility compliance rates



	Erişilebilirlik Değeri
Parking Lot	80%
Accessibility Route	81%
Sidewalks and Ramps	72%
Building Entrances and Exits	74%
İnter Floor Access	71%
WC	50%
Lecture hall, Classroom and Corridor	40%
Total	67%

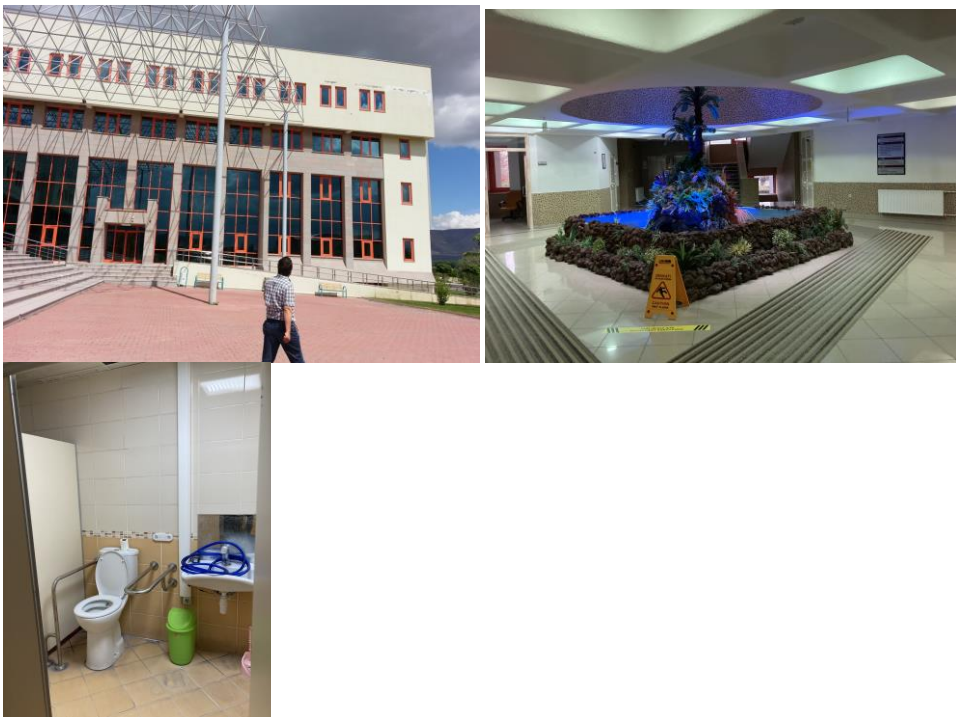


Figure 8-9-10. Rectorate Building accessibility arrangements; entrance, interior and WC visuals (Seval Yılmaz, 2022)

Although the building with different function groups was built before the accessibility legislation and regulations were published, the compliance rate was determined as 67%. The parking lots of the Rectorate building have the highest compliance rate due to both the number of disabled parking lots and their location close to the entrance. Sanctions are imposed in cases of unnecessary occupation of the disabled parking lot and obstruction of transportation and access. The administrative building has

the lowest compliance rate for restrooms among the buildings evaluated. While the evaluation forms related to lecture halls, classrooms and corridors were used, only questions about corridor-related regulations were included in the study since there were no lecture halls and classrooms in the building. According to the form evaluation, the compliance rate of corridors is 40%. The aquarium at the entrance of the building and the lack of sufficient space for circulation, deficiencies in lighting and orientation make it difficult to access the space.

Table 6. Comparative analysis of the sample group

Units		**Faculty of Architecture**	**Congress and Culture Center**	**Rectorate Building**
Accessibility Route- Parking Lot	sidewalk dimensions	✓	✓	✓
	sidewalk ramps	✓	✓	✓
	parking lot dimensions	✓	✓	✓
	parking lot numbers	×	×	×
	access corridor	✓	×	✓
	guidance and warning signs	×	×	×
Building Entrances and exits	accessible entrance and exits	✓	✓	✓
	accessible doors	✓	✓	✓
	availability of ramp	✓	✓	✓
	ramp width	✓	✓	✓
	ramp slope	✓	✓	✓
	Use of suitable materials on ramps and stairs	✓	✓	✓
	sensible surfaces	×	×	×
	guidance and warning systems	×	×	×
	accessible emergency escapes	×	×	×
İnter Floor Access, Stairs- Lifts	availability of stairs	✓	✓	✓
	step width	✓	✓	✓
	Riser height	✓	✓	✓
	non-slip tapes	✓	✓	✓
	grab bars	×	×	×
	height of grab bar	×	×	×
	sensible surfaces	×	×	×

	sensible surfaces	×	×	×
	availability of elevator	✓	✓	✓
	elevator cabin dimensions	✓	✓	✓
	door type and width	✓	✓	✓
	height of grab bar	✓	✓	×
	audio stimulators	×	×	×
	Button heights	✓	✓	×
	Braille alphabet on buttons	✓	✓	✓
	Elevator Interior Lighting	✓	✓	✓
	Elevator floor material	✓	✓	✓

**(✓: Compatible , X: İncompatible)

Table 6. Comparative analysis of the sample group

Units		**Faculty of Architecture**	**Congress and Culture Center**	**Rectorate Building**
Accessible Toilets	availability of accessible toilets	✓	✓	✓
	Toilet cabin dimensions	✓	✓	✓
	Door widths	✓	✓	×
	Door opening directions	×	✓	✓
	Maneuvering space	✓	✓	✓
	Grab bar availability	✓	✓	✓
	Grab bar heights	×	×	×
	reinforcement sizes	✓	×	×
	toilet floor material	×	×	×
	Tactile signs identifying toilets	×	×	×
Corridors	Corridor widths	✓	✓	✓
	Floor materials	×	×	×
	Door opening directions	✓	✓	×
	sensible surfaces	×	×	×
	guidance and warning systems	✓	✓	✓

Lecture Halls And Classrooms	Door width	✓	✓	
	Door opening direction	✓	✓	
	Fixed reinforcement dimensions used	✓	✓	
	Availability of space for wheelchair users	×	×	
	Flexible layout planning	×	×	
	Required lighting	✓	✓	
	Accessible stairs	×	✓	
	Accessible ramps	×	×	
	Corridor width	✓	✓	
	Colour contrast in furniture	×	×	
	Tactile surfaces for the visually impaired	×	×	

**(✓: Compatible, X: Incompatible)

**Since there is no lecture hall or classroom in the Rectorate building, it was not taken into consideration.

5. Conclusion and Recommendations

Over the years, societies have been adopting a more inclusive perspective in which everyone is included, seen as equal and on equal footing, rather than the differences in beliefs, gender, age, various physiological systems, level of education, etc. that have existed over time. Accessibility for all is now recognized as a basic need and efforts are being made globally to adapt to it. Barrier-free design is becoming indispensable in every space and area.

As a result of research, observations and interviews, the problems encountered with the campus environment and structures ;

- Accessibility to all buildings on campus
- Accessibility of building entrances and comfortable and independent movement within the building
- All user groups can access between floors
- All users can easily use the building equipment within the building
- Providing barrier-free access to lecture halls, classrooms, workshops and laboratories
- Presence of information, guidance, warning signs and signs
- The ability of any test equipment to serve a different user group

- Stairs and elevators providing access between floors can serve every user group with different abilities and constraints
- Ensuring the safe evacuation of all individuals from buildings in the event of an emergency is essential for accessibility solutions and approaches in the campus environment and structures.

We can list the design and improvement suggestions for eliminating the deficiencies and problems identified in the buildings in the sample group as follows.

Faculty of Architecture

- Disabled parking spaces should be identified and unnecessary occupation should be prevented.
- Accessible routes from parking lots to the building should be expanded by adding tactile surfaces that facilitate access for the visually impaired. The materials to be used should be durable, non-slip and suitable for climatic conditions.
- Main entrances-exits and emergency escape routes should be designed so that users can exit safely in an emergency.
- Arrangements and improvements should be made in the building in accordance with the guidelines for the visually and hearing impaired.
- Orientation, information and warning signs should be arranged in sizes and heights in accordance with the standards.
- Interior and exterior toilet doors on all floors should be arranged to open outwards.
- Since adding ramps to the existing lecture halls in the faculty will cause problems, maneuvering areas should be left in the lecture hall entrance areas for wheelchair users to move easily. Since the fixed equipment in the classrooms are also not suitable for wheelchair users, areas should be created for comfortable use.
- Color contrasts should be created in the furniture in lecture halls, classrooms and corridors so that visually impaired individuals can identify the equipment.
- The accessibility of hearing and visually impaired people in the space should be increased with audio, tactile and stimulating arrangements to be added to the corridors.
- The steps should have handrails installed on one side, with the handrails beginning 30 cm before the stairs begin and ending 30 cm after the stairs finish.

Martyr Omer Halisdemir Congress and Culture Center

- Parking lots and building entrances are more than 30 meters apart. Since moving the parking lot and building entry would be challenging, the path leading from the parking lot to the building should be set up according to the guidelines, making sure that people with physical disabilities can enter independently and conveniently.

- Emergency exit instructions and directions should be organized in a way that everyone can easily see.
- Improvements should be made in the building in accordance with the regulations for the visually and hearing impaired.
- Guidance and information systems within the building should be improved so that visually and hearing impaired people can use them.
- There is only one independent disabled restroom on each floor. Since this situation will create a feeling of exclusion for individuals and there may be an increase in the number of users during events, conferences or exhibitions, troublesome situations may arise. In this context, separate cabins should be designed inside the men's and women's toilets, and if possible, all cabins should be arranged in a way suitable for the use of all user groups.
- The dimensions of the fittings in the toilets should be changed/regulated in accordance with the standards.
- The existing lecture halls do not have ramps of the required size and dimensions. Only in Hall 1071, access is provided using the elevator system. These solutions should also be applied to other lecture halls. The halls on the first floor, which are designed with flexible and accessible solutions and can be combined when necessary, serve all kinds of events and user groups.
- Color contrast should be created in fixed and movable furniture in the building.
- Audible, tactile and stimulating signs and arrangements should be included in the building entrance and corridors where circulation is intense; accessibility of hearing and visually impaired people in the space should be increased.
- Perception of the main elevator located far from the building entrance may pose a problem for the first time visitors. Necessary guidance is required.

Rectorate Building

- The Rectorate building is the most compliant building on campus with the standards for disabled parking lots. Tactile surfaces should be added to the route that provides access from the parking lot to the building, which will facilitate the access of individuals with visual impairments and provide guidance.
- There are no different exits for emergency escapes. This situation should be resolved as it may pose a danger.
- Although there are visually and hearing impaired employees in the administrative building, there are no arrangements for the visually and hearing impaired. Improvements and arrangements in accordance with the standards will be made to ensure a more comfortable and easy use.

- Guidance and information systems within the building should be organized in such a way that visually and hearing impaired people can also use them.
- Each floor has a disabled toilet located inside the men's and women's restrooms. However, wheelchair users may experience difficulties in crossing the corridor from the sinks to the cabins. This problematic situation should be eliminated. It has been observed that some disabled cabins are used as storerooms. This situation should be ended and it should be ensured that the cabins serve all users at all times, not only when necessary.
- The fittings in the toilet cubicles should be replaced with those that comply with the standards.
- In the corridors where circulation is intense in the building, audible, tactile and stimulating arrangements should be included to facilitate access for the hearing and visually impaired.
- Reducing or removing the size of the aquarium located at the entrance of the building will increase accessibility by preventing accidents that may occur.

Conflict of Interest Statement

The authors declares no conflict of interest.

Summary of Researchers' Contribution Rate Declaration

The authors declare that they have contributed equally to the article.

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