

DISABILITY AND SPORTS: ANALYSING THE ACCESSIBILITY

Samruddhi Kulkarni¹, Ar. Payal Musmade², Ar. Priti Patwari²

¹Research Scholar, Dayanand College of Architecture, Latur.

²Ar. Payal Musmade, Assistant Professor, Dayanand College of Architecture, Latur.

²Prof. Priti Patwari, Professor, Dayanand College of Architecture, Latur.

ABSTRACT

Sports complex for disabled people play important role overall fitness and well-being. This paper focuses on research and analysis of role of sports complexes for disabled people and stimulating the growth in the field. They have a have a look at delves into the numerous components of designing and building sports complexes that cater to the specific wishes of disabled people.

It examines the significance of accessibility, adaptive device, and specialized schooling programs in developing an inclusive environment. Additionally, paper focuses on vital impacts of sports field on our physical, mental and social improvement, specially for people with disabilities. Study is majorly based on analysis of present scenarios, case studies and literature reviews. The paper and research focuses on planning fundamentals, layout concpets, increasing inclusivity of the sports activities in India and boost the sports activities for disabled people.

Keywords: physically challenged, disabled, paralympic, accessibility, disabilities

1. INTRODUCTION:

Disability does not hinder integration, as people with disabilities are always part of society. It is for people without disabilities. Enhancing competencies through coordination is a team spirit. Sports play major role in improving physical fitness, mental health and social networking. Sports complexes are the base and route cause of all the sports activities of the country, hence they play crucial role of social empowerment of the field by transforming community attitudes and overall development of the field.

Present conditions of Sports infrastructure for disabled players in India, majorly reflect lack of proper planning, lack in structural organization, accessibility etc. Therefore, the study and research in this field is needed, as this is a major obstruction for disabled athletes in terms of health, involvement. By offering them a proper infrastructure and awaremenss can contribute in sense and space to remain active and overall development in the field.

Current study based on recreational activities of the disabled people show that, participation of disabled players in the sports field is majorly obstructed due to many aspects. This shows that the intensive analysis in sports and recreational activities reveals the fact that original sports facilities were tailored differently for the disabled individuals, hence enabling overall integration.

2. BACKGROUND:

The persistent attempts of current sports complexes and accessible facilities aims to create more adaptive sports opportunities. The universal accessibility standards of athletic facilities highlights all the activities and details of the past events.

In the 20th century, the recorded history of the Paralympic sports give the detail insights of general practices of physical wellness for the players with the impairments, along with providing complexes with special inclusions with eventually resulted in equitable participation of physically and mentally disabled players.

3. NEED OF THE TOPIC:

- This topic can help in identifying the challenges which are faced by disabled people in sports and physical activities.
- It can also help in recognizing the facilities required in sports complexes

- This study also helps in to realize the benefits of sports and physical activities for physically challenged people.
- To understand how sports and physical activities can improve their health, social interaction and spread awareness and positive impact in the world.
- To understand the opportunities and development due to availability and improvement of this sports centers for disabled people

4. AIM:

To discover the importance and impact of sports activities complexes for bodily challenged human beings. This studies paper may also discuss the capabilities of a sports activities that it will likely be smooth to access for disabled people. Complicated. It may be going to spotlight the accessible infrastructure, adaptive device so

Overall, these studies will explore the imminent factors and development in recreation complexes for physically challenged humans. These complexes aim to create inclusive environments where physically challenged individuals may enjoy various physical exercises suited to their distinct limitations.

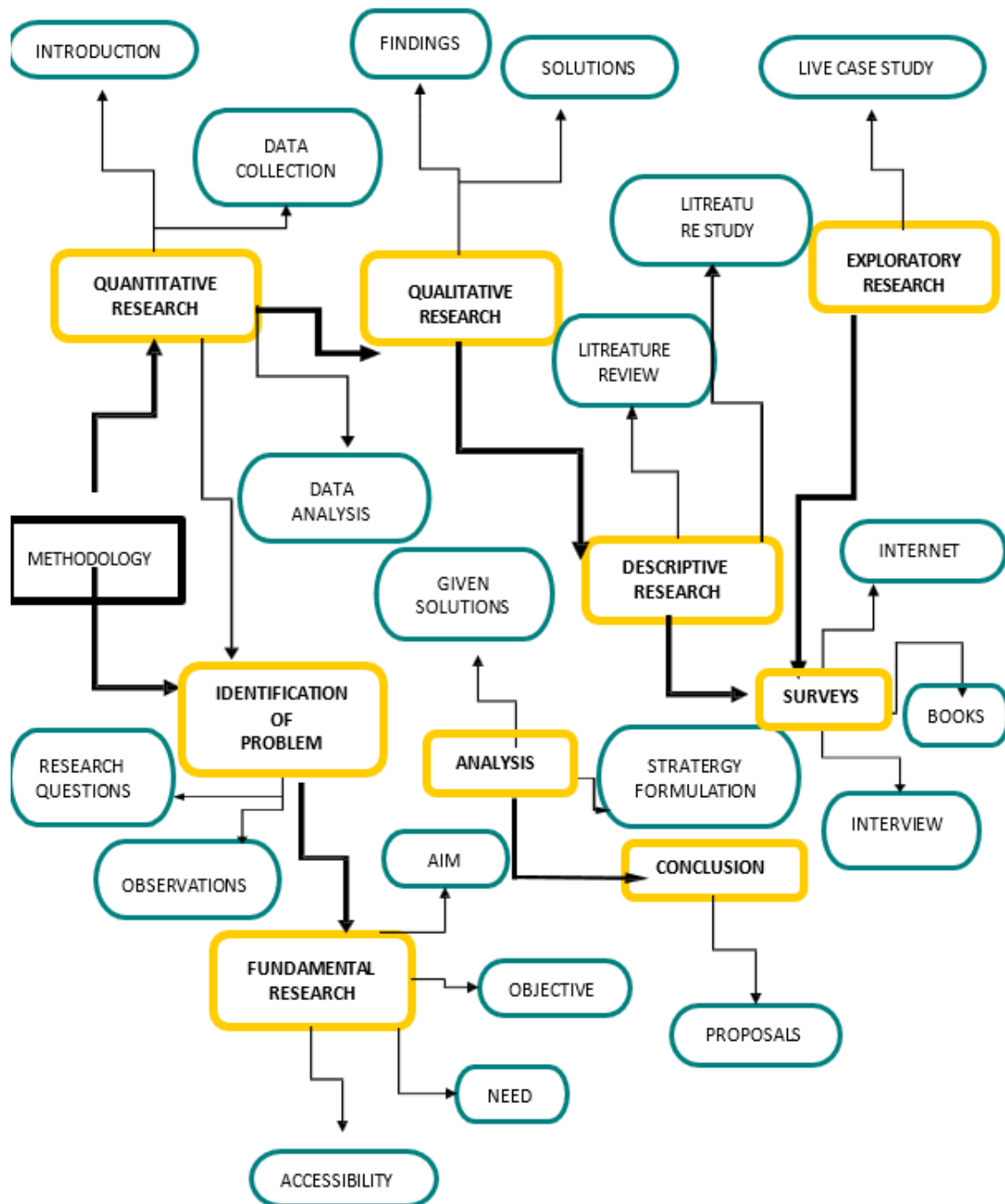
5. OBJECTIVE:

- To provide solutions and opportunities for upcoming time period structures.
- To study the ways of easy availability of this thought and improved design, facilities, and accessibility.
- To discuss current situations and availability along with facilities and design problems.
- To analyse new opportunities and development which can be achieved for sports complexes specially for physically disabled people.

6. RESEARCH QUESTIONS:

1. Which sports activities are mostly participated and accessed by the physically challenges players in the sports complex?
2. Which sports activities are mostly participated and accessed by the mentally challenges players in the sports complex?
3. How can we use modern technology in sports complexes to improve the overall experience for players with the impairments?
4. What is the role of planning and infrastructure of these sports complexes of the disabled people to enhance the future development in this area.

7. METHODOLOGY:



LITREATURE STUDY

7.1 LITREATURE REVIEW: SPORTS FOR DISABLED PEOPLE IN INDIA: NEERAJ KUMAR MEHRA

The research paper delves into adaptive sports in India. It studies opportunities for disabled people. Various aspects are explored. Challenges are detailed. Initiatives for inclusive sports participation are discussed.

Complex challenges are covered in this paper. Disabled people in India face social stigmatization. Inaccessible infrastructure poses problems. Opportunities for personal development are limited. The paper focuses on sports participation. It suggests inclusion as a solution.

Olympic pedagogy is the next topic. This research explains its application in India. The term denotes teaching methodologies. They relate to Olympic sports. Concepts like personal growth figure prominently. Teamwork is encouraged. Resilience is developed. Fair play is championed.

The research shows potential benefits of Olympic pedagogy. Disabled individuals can benefit from it in sports programs. Overall well-being can be improved positively.

Success stories form part of this research too. Some sports initiatives have adopted these principles already for disabled individuals in India. They stand as transformative case studies. The power of sports becomes apparent here.

The research underlines sport's inclusivity also. It has provided skill development opportunities to disabled individuals in India. Disabled participants find a sense of belonging there too from these case studies of Olympic pedagogy application.

Self-confidence increases with sports participation among the disabled people according to the research findings shown here on India's experience so far with Olympic pedagogy-driven initiatives which also shows improvement in physical health as well as mental health among participants captured by this study on adaptive sports programs- detailing combining sporting principles with special ability philosophy thereby creating an ecosystem which allows equal participation while focusing mainly on finding ways to deal with different expectancies coming out from this ambitious transformation taking place inside Indian society today through such crucial interventions via initiatives covered by this study aiming at analyzable growth judging prospectively how well or bad these experiments turn out eventually for those working towards charisma realization within these adapted sporting needs fitting limited life choices.

7.2 PEOPLE WITH DISABILITIES AND SPORT: AN EXPLORATION OF TOPIC INCLUSION IN SPORT MANAGEMENT

AUTHOR: BRENDA PITTA AND DEBORAH R. SHAPIRO

This studies paper indicates the underneath – explored region of incapacity inclusions inside the field of sport management. This paper objectives to shed mild at the importance of promoting inclusivity and variety in sports groups and control practices, with a selected awareness at the studies of human beings with disabilities.

Also, the examine contributes to a deeper information of the demanding situations and possibilities related to disability inclusion in sport management. The real purpose of the paper is to encourage fine modifications and foster a greater inclusive and diverse sports industry that celebrates and empowers humans with disabilities.

The findings from the literature review reveal that although development has been made in current years, there is still a lack of instructional packages, training, and resources to be had to ability game managers to well cope with the desires and demanding situations of individuals with disabilities.

This deficiency hampers the whole integration of humans with disabilities into control positions within the sports activities industry.

Based on these findings, the writer outlines numerous pointers for improving inclusion in recreation management.

These pointers encompass incorporating incapacity-related curriculum and education in game management education packages, establishing partnerships between game companies and disability advocacy corporations, and enforcing handy centers, technology, and services to deal with individuals with disabilities.

7.3 CREATING OPPORTUNITIES IN SPORT FOR PEOPLE WITH DISABILITIES AUTHOR: IVANA KATSAROVA

This studies paper dig into the vast in sports activities by using offering equal possibilities for bodily challenged people. This paper aims to discover the challenges faced with the aid of the humans with disabilities in getting access to sports activities opportunities and become aware of the important thing strategies which can decorate their participation and involvement in sports community.

The paper examines a hit project aimed toward creating opportunities for humans with disabilities in sports. Examples include adaptive sports activities packages, para-athletic competitions, and the provision of specialized equipment and facilities. Katsarova discusses the fine effect of such tasks, not best on person athletes but additionally on society, by means of challenging stereotypes and promoting inclusivity.

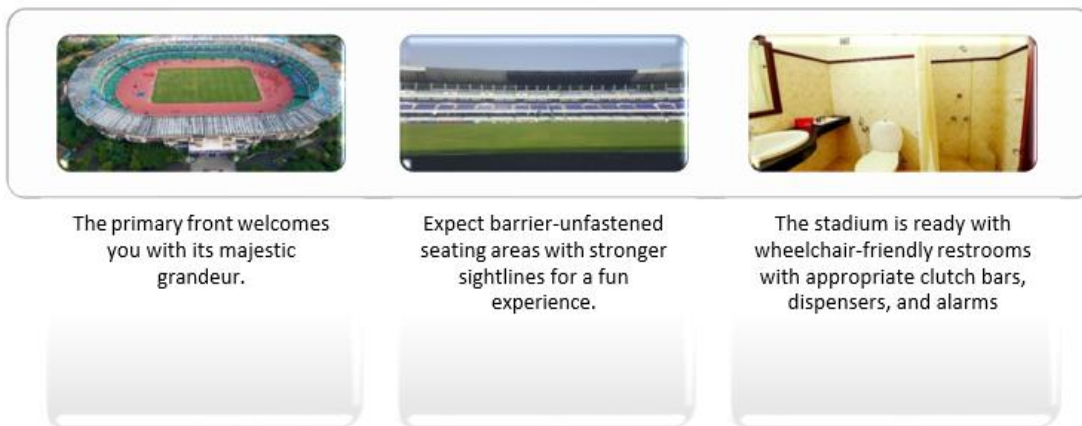
The look at of this research paper indicates the significance of sports and potential impact it can have at the lives of people with disabilities.

Ivana Katsarova’s research paper seeks to pave the way for improved opportunities and empowerment in sports activities for bodily challenged humans.

8. LITREATURE STUDY:

8.1 JAWAHARLAL NEHRU STADIUM, NEW DELHI

Jawaharlal Nehru Stadium, New Delhi, is one of the maximum hand and inclusive sports arenas in India, presenting exquisite center for physically challenged people.



9.2.1 FACILITIES FOR PHYSICALLY CHALLENGED PEOPLE AT THE STADIUM:

The stadium gives an array of incapacity-pleasant facilities to make your go to a snug one. Assistance and guide from educated volunteers are with ease to be had.

- **ACCESSIBLE PARKING:**

There are unique parking areas closer to the stadium entrances for customers with disabilities.

At the gate’s, educated personnel are available to assist with wheelchairs.

- **AUDIO AID SYSTEM:** To offer powerful audio communications, the audio-aid gadget is set up, specifically for the hearing-impaired.

- **MEDICAL ROOM AND FIRST AID:** The clinical team at the stadium is geared up to deal with minor accidents.

A separate medical room for athletes and customers is available.

- **OPEN SEATING**

The seating for human beings with disabilities is strategically located to permit for easy entry and go out, and greatest view of the court or pitch.

- **ACCESSIBLE SUITES**

Accessible suites have been especially designed for enthusiasts with disabilities, presenting extra area and comfort.

- **WHEELCHAIR SEATING**

The stadium offers complementary wheelchairs for lovers to apply during the game.

9.2.2 TRAINING PROGRAMS AND OPPORTUNITIES FOR DISABLED ATHLETES

- Jawaharlal Nehru stadium affords several programs and resources for disabled athletes, empowering them with a sense of self-belief and motivation.
- Disabled athletes are not any much less than able athletes. they provide a huge range of education programs, modern-day centers, and expert coaches to help them reach their most ability. says the leader coach of the disabled athlete’s application at the stadium.

9.2.3 FUTURE PLANS FOR IMPROVING ACCESSIBILITY AT THE STADIUM:

- The stadium is continually seeking to enhance its accessibility features and provide the nice feasible revel in to fans and athletes with disabilities.



The stadium has on hand pavements that lead towards on hand parking and seating areas



With trendy health club centers, disabled athletes can teach and prepare themselves to reach their dreams.



The physiotherapy department offers vital treatment to athletes.

Enhanced Accessibility and Mobility Assistance
<ul style="list-style-type: none"> • Expanded seating options that allow for greater mobility and luxury, at the side of the potential for superior personnel assistance, can be added to enhance accessibility.

Improved Connective Infrastructure
<ul style="list-style-type: none"> • A barrier-free pedestrian and vehicular environment, at the side of an integrated community of public transportation, will make the journey to the stadium smoother and greater handy.

Community Outreach and Advocacy
<ul style="list-style-type: none"> • The stadium will preserve its advocacy and community outreach programs to elevate consciousness about the specific wishes of human beings with disabilities and the significance of sports and athletics of their lives.

Jawaharlal Nehru Stadium, positioned in New Delhi, is a multi-reason sports arena that caters to a extensive range of sports and occasions. In phrases of accessibility for physically challenged people, the stadium has taken measures to ensure inclusivity.

- 1) **Wheelchair Accessibility:** The stadium offers on hand ramps and wheelchair centers, enabling smooth movement for physically challenged spectators. There are regions in the seating association for wheelchair users, making sure a snug viewing experience.
- 2) **Accessible Entrances:** The entrances to the stadium are equipped with wheelchair ramps and handrails, permitting smooth get admission to for individuals with constrained mobility.
- 3) **Accessible Seating:** There are certain seating regions in the stadium specifically for physically challenged individuals and their partners. These seating regions provide enough space to house wheelchairs and an unrestricted view of the gambling discipline.
- 4) **Accessible Toilets:** The stadium includes handy rest room facilities prepared with take hold of bars and adequate space for wheelchair maneuverability. These facilities are conveniently located in the stadium premises.

- 5) **Assistance:** Support personnel and volunteers are to be had in the stadium to assist bodily challenged people, making sure a hassle-free revel in during their visit.

9.4 DIVYAANG MYITHRI SPORTS ACADEMY

- The center existence of Divyaang Myithri Sports Academy (DMSA) is to encourage differently abled individuals to take-up Para- sports activities at very young age and assist the certified para-athletes to acquire their intension by using offering education, specialized coaches, infrastructure, sports equipment's and help financially to participate in worldwide occasions and sooner or later Paralympics.
- Sports Academy (DM) desires to be an Incubator and enabler in producing Paralympics champions and be one of the main academies in India in generating prominent Paralympics champions. Make India a Para-sports dominant Nation in the world.



FIG. SHOWS THE GROUND



FIG. LOGO OF ACADEMY

9.5 STOKE MANDEVILLE STADIUM ENGLAND

- Stoke Mandeville Stadium inside the United Kingdom is identified because the "domestic of wheelchair sport" and the "birthplace of the Paralympic Games".
- Stoke Mandeville Stadium is committed to providing a range of facilities specifically designed to cater to the needs of disabled people.
- The stadium offers accessible parking spaces near the entrance, along with ramps and wide doorways to accommodate wheelchair users and individuals.



FIG. INFRASTRUCTURE OF BUILDING



FIG. WHEELCHAIR GROUND



FIG. COURT

- Additionally, there is a Changing Places facility equipped with hoists and changing benches to meet the needs of those with more complex personal care requirements. The stadium's sports facilities, including an athletics track, swimming pool with hoist access, gymnasium, and indoor sports halls, are designed to ensure inclusivity and equal opportunities for disabled athletes and visitors.

- Stoke Mandeville Stadium also provides adaptive sports equipment, such as specialized wheelchairs and sports prosthetics, enabling individuals with disabilities to fully participate in various sports activities.
- Accessible accommodation options are available, featuring wheelchair-friendly features and facilities. The stadium's supportive staff members are trained to assist disabled individuals, and accessible conference rooms and event spaces ensure participation in various gatherings.
- Stoke Mandeville Stadium strives to create an inclusive environment, promoting equal opportunities and accessibility for all visitors to enjoy sports, recreational activities, and events with ease.

9.7 HALL OF THE OLYMPIC PREPARATIONS CENTRE

- The Spala Paralympic Training Centre in Poland is a famous facility for schooling and preparing Paralympic athletes. It is part of the broader Olympic Sports Centre in Spala, Poland, Europe. which serves as an expert training base for country wide and Olympic groups throughout diverse disciplines. The Spala Paralympic Training Centre is identified for its contemporary facilities, making it one of the most superior sports activities facilities in Poland and Europe.



BOTH FIG. SHOWS THE INFRASTRUCTURE OF TRAINING CENTRE

- Tartan-surface athletic tune: The middle boasts a 400-meter tartan-surfaced athletic tune ready with jumping and throwing sections. It meets the trendy international athletics standards and has been granted an IAAF certificate.
- Indoor athletic halls: The facility includes one in all the most important indoor athletic halls in Poland, proposing a 2 hundred-meter Mondo runway, which incorporates a 60-meter sprint tune. This hall gives a conducive environment for year-round training and competitions.
- Adaptive sports device: The center gives specialized adaptive sports activities device tailored to the wishes of Paralympic athletes. This ensures that athletes can educate and compete successfully in their respective sports activities.
- Accessibility: Design according the rules and regulations as per physically disables players.
E. g: Pathways, Sit-outs, changing rooms, sign boards, ramps, toilets etc.
- Support services: Through technology, Medical service, psychology assistance and counselling which can boost the overall development.

9. ANTHROPOMETRY:

- Sign boards, Accessibility fundamentals like ramps, rooms, doors and windows, placements of the equipment and gathering areas etc. should be based on anthropometric measurements.
- Proper guide should be provided for seating areas, practicing and other positioning areas showing the use of anthropometric measures.
- Circulation radius of wheelchairs, pathways need to be designed using anthropometry.

- All the workstations, practice rooms, fields and other system should designed according to anthropometric measurements of physically challenged.

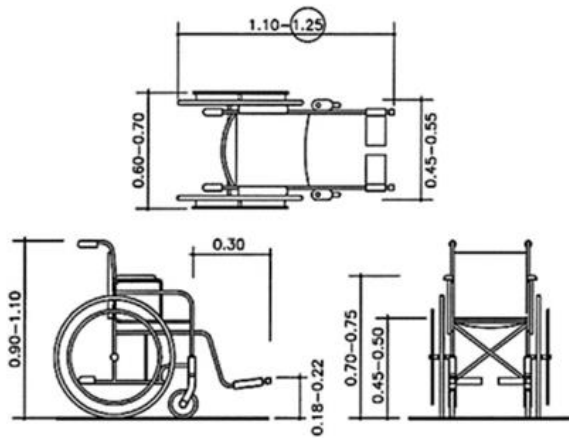


FIG. DIMENSIONS OF WHEELCHAIR

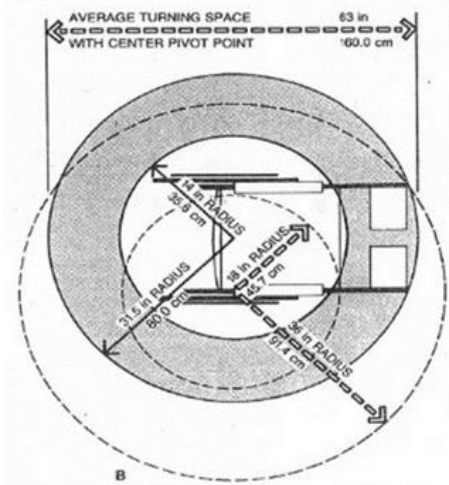


FIG. RADIUS OF WHEELCHAIR

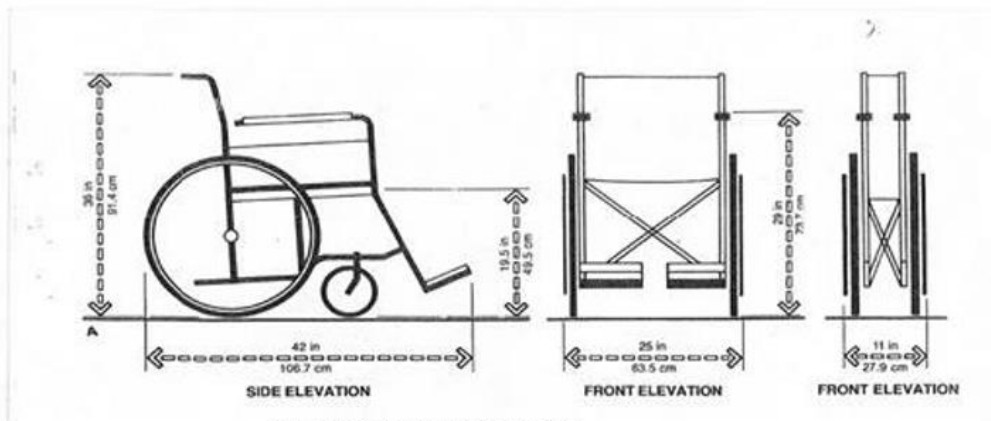


FIG. ELEVATIONS OF WHEELCHAIR

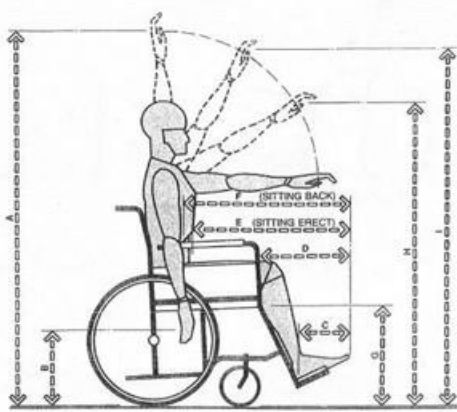


FIG. ANTHROPOMETRY OF CHAIRBOUND PEOPLE

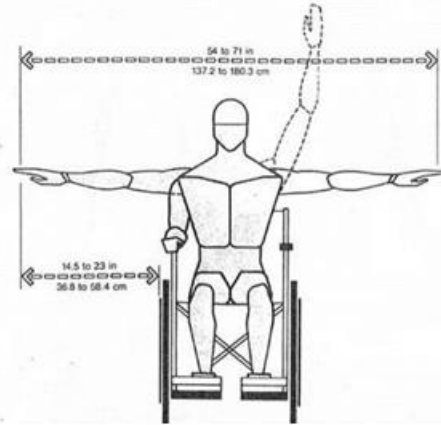


FIG. ANTHROPOMETRY OF CHAIRBOUND

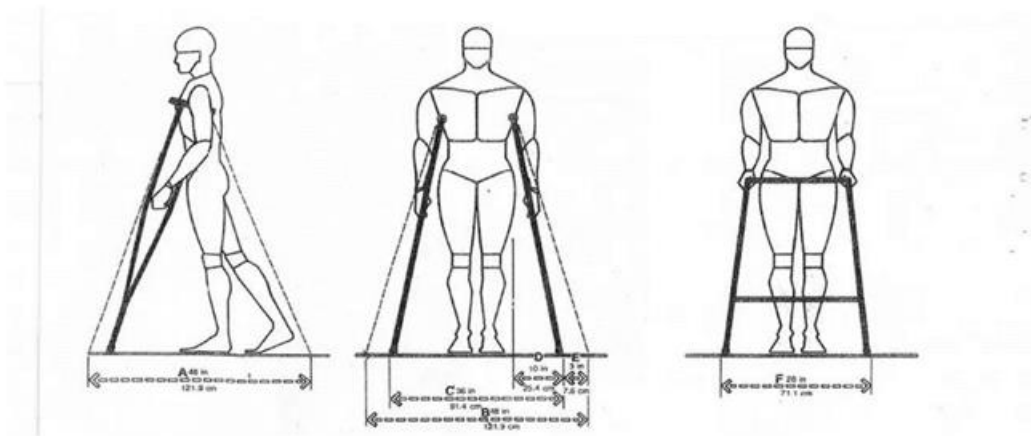
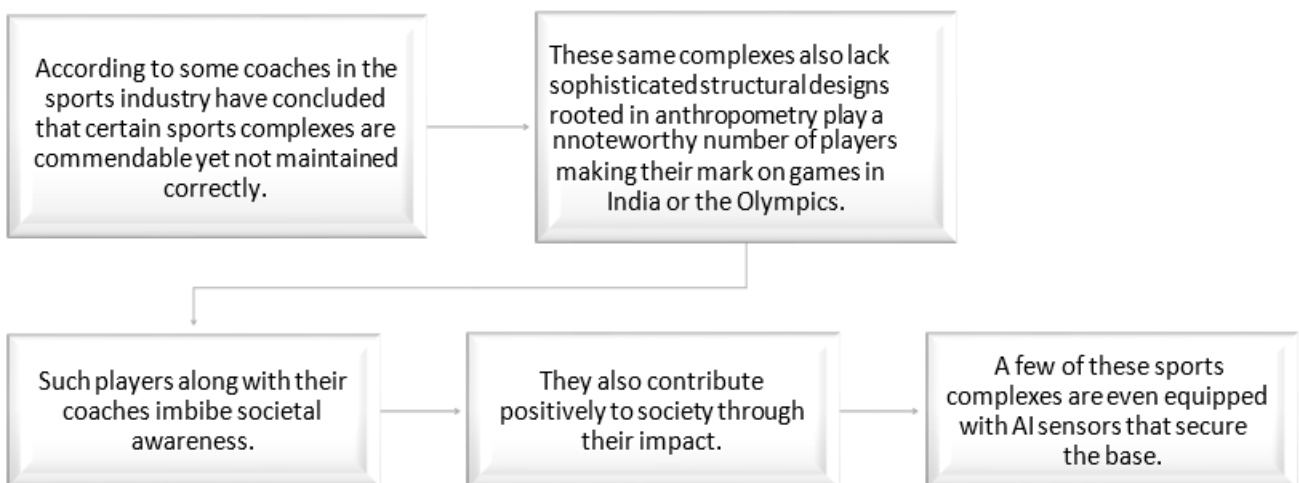


FIG. ANTHROPOMETRY OF WALKER PERSON

10. INTERVIEWS:



11. FINDINGS:

- Accessibility and Inclusivity:
 - ✓ Proper planning of sports facilities designed specifically for people with disabilities.
 - ✓ Ease of Entry and Exit at all spaces enabling comprehensive integration.
 - ✓ Appropriate sign boards, textures and warning boards enabling ease of accessibility in mind.
 - ✓ Ramps, Pathways, Spacious entry and exit, circulation radius, adaptable restrooms etc.
- Specialized Technology & Equipment: Keeping update of the latest technology and equipment to improve the overall experience of the campus and prioritizing the accommodation of various other impairments.
- Ample Opportunities in Sports Area: A varied range of sports covering wheelchair basketball, adaptive swimming, power soccer, track & field exercises etc.
- Integration: Coaching and training techniques modified in a way to suit diverse abilities enabling diversity integration.
- Policy Compliance: Sporting facilities cater specially to handicapped sports ensuring accessibility across all facilities, these initiatives prevent discrimination by promoting inclusivity.
- Inclusivity : Initiatives regarding implementation of the necessary fundamentals through administration.

12. PROPOSALS:

- Survey and Interviews: Further study and surveys are necessary with disabled sport players, to keep record of their experiences, challenges and participations in various recreational areas.
- Existing Sports Complexes: Time to time visits to sports complexes designed specially for disabled players to analyse the successful design and planning factors, latest technologies and fundamentals.
- Collaboration with Experts: Studying the strengths and weaknesses of the design and accordingly collaborating with experts to gets insights in sports, architecture and infrastructure, etc.
- Identifying Needs and Challenges: The needs and challenges about physical, mental, and various disabilities, and accordingly studying the impact on sports & recreational activities.
- Facility Design and Equipment Adaptation: Design the sports complex with inclusive and reachable functions together with ramps, elevators, tactile cues, and adaptable system to cater to the numerous wishes of disabled individuals.

13. CONCLUSION

Sports complexes for physically disabled people highly depend upon quality of layout and anthropometry followed for the physical infrastructure. This can majorly contribute in equality and integration, hence addressing the demanding problem raised by disabled players. Hence, focusing on purpose built facilities thereby achieving overall integration and empowerment. Eventually these factors will also result in increasing participation of sport players and active involvement.

By addressing the specific factors of disabled athletes and promoting inclusivity, contributions to the improvement of sports activities complexes which could without a doubt aid individual with disabilities of their pursuit of athletic excellence.

REFERENCES:

Brenda pits 'People with disabilities and sport: An exploration of topic inclusion in sport management' August 2017.
<https://www.researchgate.net/publication/319231928> People with disabilities and sport An exploration of to pic inclusion in sport management

Ivana Katsarova 'Creating opportunities in sport for people with disabilities' February 2021.

[https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/679096/EPRS_BRI\(2021\)679096_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/679096/EPRS_BRI(2021)679096_EN.pdf)

Neeraj Kumar Mehra 'sports for disabled people in India' July 2011.

https://www.academia.edu/1939895/Sports_for_Disabled_People_in_India

https://www.google.com/search?q=9.7+HALL+OF+THE+OLYMPIC+PREPARATIONS+CENTRE&oq=9.7%09HALL+OF+THE+OLYMPIC+PREPARATIONS+CENTRE&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIGCAEQRRg80gEHNTI3ajBqN6gCALACAA&sourceid=chrome&ie=UTF-8

https://www.google.com/search?q=STOKE+MANDEVILLE+STADIUM+ENGLAND&oq=STOKE+MANDEVILLE+STADIUM+ENGLAND&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTIHCAEQIRigATIHCALQIRigAdIBBzQ5MGowajeoAgCwAgA&sourceid=chrome&ie=UTF-8

https://en.wikipedia.org/wiki/Stoke_Mandeville_Stadium

https://www.google.com/search?q=divyaang+myithri+sports+academy&oq=DIVYAANG+MYITHRI+SPORTS+A CADEMY&gs_lcrp=EgZjaHJvbWUyBggAEEAAY4wIYgAQyCggAEEAAY4wIYgAQyDQgBEC4YrweYxwEYgAQyBggCEEUYOzIKCAMQABiGAXiKBTIKCAQQABiGAXiKBTIGCAUQRRg8MgYIBhBFGDzSAQc0NDRqMGo3qAIAsAIA&sourceid=chrome&ie=UTF-8

https://www.google.com/search?q=JAWAHARLAL+NEHRU+STADIUM%2C+NEW+DELHI&oq=JAWAHARLAL+NEHRU+STADIUM%2C+NEW+DELHI&gs_lcrp=EgZjaHJvbWUyBggAEEUYOTINCAEQLhivARjHARiABDIICAIQABgWGB4yCAGDEAAYFhgeMggIBBAAGBYHjIICAUQABgWGB4yCAGGEAAYFhgeMgYIBxBFGD3SAQc0NThqMGo3qAIAsAIA&sourceid=chrome&ie=UTF-8

BIOGRAPHIES

Samruddhi Kulkarni: Student
Dayanand College of Architecture, Latur



Ar. Payal Musmade : Assistant Professor
Dayanand College of Architecture, Latur



Ar. Priti V. Patwari: Proffessor
Dayanand College of Architecture, Latur