HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING COURSE

DIPLOMA PROJECT

ROBOTICS APPLIED IN TELEMEDICINE

E.1425

NIKOS VOURKAS

JUNE 2007

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CONTENTS

ACKNOWLEDGEMENTS 3
CHAPTER 1 4
INTRODUCTION 4
CHAPTER 2 5
WIRELESS TECHNOLOGIES 5
2.1 INTRODUCTION 5
2.2 WIRELESS TECHNOLOGIES OVERVIEW 6
2.3 WI-MAX OVERVIEW 11
2.4 SHORT RANGE TECHNOLOGIES 14
2.4.1 BLUETOOTH OVERVIEW 14
2.4.2 *ULTRA WIDE BAND OVERVIEW* 23
2.5 WIRELESS TECHNOLOGIES COMPARISON 26
Infrared Wireless 26
Radio Frequency (RF) 27
Wireless Protocols 27
Wireless Application Protocol (WAP) 27
Protecting WTLS WAP Gateways 28
Bluetooth 28
Bluetooth Security Issues 29
Securing Bluetooth 29
802.11 Current 30
Access Control 31
Wired Equivalent Privacy (WEP) 31
802.11b Security 31
802.11 Future 32
Top 5 Security Issues 33
1. Eavesdropping 33
2. Theft or Loss of wireless devices 33
3. Denial of Service 34
4. Wireless viruses 35
5. Masquerading 35
3 Wireless Cheat Sheet 37
4 Bluetooth vs. 802.11 38
2.6 COMPETING WIRELESS TECHNOLOGIES 38
CHAPTER 3 44
SATELLITE COMMUNICATIONS 44
System Architectures 44
Emerging Applications 46
ATM Over Satellite Technology 49
Geostationary Orbits 53
Polar Orbits 54
Inclined Orbits 55
History 56
Early missions 56
Applications 57
Telephony 57
Satellite Television and radio 57
Mobile satellite technologies 60

Amateur radio 60
Satellite broadband 60
5 CHAPTER 4 61
6 TELE-ECHOGRAPHY : THE MARTE PROJECT 61
6.1 INTRODUCTION 61
CHAPTER 5 69
TELE-ECHOGRAPHY : THE OTELO PROJECT 69
Fig. 23(a): Tele-examination from Spain Fig. 23(b): Tele-examination from France 76
CHAPTER 6 78
EMERGENCY TELEORTHOPEDICS 78
CHAPTER 7 84
CONCLUSIONS 84

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CHAPTER 1

INTRODUCTION

The scope of this project is to gather information about how robotics can be applied in telemedicine. This research includes simple and technical information on how this can be done.

The purpose of this system is to help people living in remote areas get the medical help they need from doctors all around the world, without the time and money consuming need to travel long distances.

This project includes information on how people can take advantage of the vast capabilities of robotics and wireless technology, for the sake of medicine.

CHAPTER 2

WIRELESS TECHNOLOGIES

2.1 INTRODUCTION

Wireless technologies represent a rapidly emerging area of growth and importance for providing ubiquitous access to the network for all of the campus community. Students, faculty and staff increasingly want un-tethered network access from general-purpose classrooms, meeting rooms, auditoriums, and even the hallways of campus buildings. There is interest in creating mobile computing labs utilizing laptop computers equipped with wireless Ethernet cards. Recently, industry has made significant progress in resolving some constraints to the widespread adoption of wireless technologies. Some of the constraints have included disparate standards, low bandwidth, and high infrastructure and service cost. Wireless technologies can both support the institution mission and provide cost-effective solutions. Wireless is being adopted for many new applications: to connect computers, to allow remote monitoring and data acquisition, to provide access control and security, and to provide a solution for environments where wires may not be the best solution.

What follows is an overview of existing wireless technologies and related issues.