Contents

PART 1: HEALTHCARE FACILITY PLANNING: PAST, PRESENT, AND FUTURE				
Growth				
 Health Services Management: Recent Advances and Future Trends The Art and Science of Medicine The Hospital Hospitals: The Challenge of Change Hospital Organization and Structure Growth of the Modern Hospital Standards of Construction Changing System of Health Services Concepts Changing Concepts in the Health Facility Planning 	3 14 18 25 42 52 70 83 88			
Planning				
 10. Regional Planning The Planning Organization Machinery 11. Planning Health Facilities 12. Renovation 13. The Process of Planning 	95 101 104 109 111			
Emerging Approaches				
 14. Evidence-based Design: A New Concept that Puts the Focus on Patients 15. Sustainable Hospital Design 16. Designing Green Hospitals 17. Towards Total Health Care 18. The Patient-centred Approach 19. Patient-focused Hospital 20. Emerging Approaches in Hospital Design 21. Nucleus Concept 22. Modular Building Concept 23. Hospital Modernization 24. Cutting Construction Costs 	122 135 146 153 156 157 166 176 179 181			
Recent Trends				
 25. Humanizing Healthcare Facilities 26. Autonomous Healthcare Facilities 27. Recent Trends in Hospital Architecture 28. Future Trends 29. The Hospital of Tomorrow 	186 187 188 195 198			
PART 2: HOSPITAL: DESIGN AND DEVELOPMENT				
From "An" Idea to "The " Idea				
30. Hospital: From the Center of Excellence to Community Support31. Fundamentals of Design32. Functional Design	217 231 238			

33.	Profile of the Hospital Environment	247
34.	Environment	251
35.	Influence of Climate on Buildings	261
36.	Space Programming and Functional Systems	267
	Hospital Patient	280
38.	Floors, Walls, and Installations	286
Des	sign and Construction	
39.	The Nursing Zone	292
40.	The Clinical Zone	312
	- Emergency Department	312
	- Outpatient Department	319
	 Operating Department 	326
	 Critical Care Units 	347
	 Multidisciplinary Intensive Care Unit 	363
	- Emerging Trends in Intensive Therapy Unit	370
	- Acute Nursing Care Units	373
	- Medical Monitoring	376
	- Isolation of Patients	380
	- Obstetrics Department	382 392
	Day Care FacilitiesAmbulatory Surgery Facility	392
	 Hospital Standards for the Care of HIV-infected Persons 	402
	- Healthcare Facilities for Elderly People	408
	Special Care Department: Renal Dialysis Unit	416
	- Cardiac Catheterization Laboratory	419
	- Pulmonary Medicine	422
	- In Vitro Fertilization Laboratory—Assisted Reproductive Technology	424
41.	Mental Health Facilities	432
42.	The Support Zone	443
	 Physical Medicine and Rehabilitation 	443
	 Laboratory Planning and Layout 	453
	 Planning a Medical Laser Program 	469
	 Radiodiagnosis Department 	473
	- Medical Resonance Imaging	484
	- Comparison of Various Imaging Techniques	490
	- Positron Emission Tomography	492
	Designing a CT Scan Room Extracorporal Shadkyaya Lithetripsy	497
	Extracorporeal Shockwave LithotripsyRadiation Oncology Department	501 505
	- The Brachytherapy	514
	Nuclear Medicine Department	518
	- Blood Transfusion Center	526
	- Hospital Blood Bank	534
	- Medical Informatics	538
	- Medical Records Department	545
	– Electronic Healthcare Record	551
	 Central Sterile Service Department 	560
	- Dietary Services	571
	- The Hospital Pharmacy	581
	 Planning of Laundry Services 	593
	 Medical-Surgical Gases and Vacuum 	599
	- Libraries in Hospitals	602
	Planning a District Hospital	618
	Planning of Health Centers	631
	Hospital Engineering Services	633
40.	Fire Safety in Healthcare Facility	645

	Contents	XV
47. Morgue/Mortuary		651
48. Housing Facilities		653
 Research Facilities 		655
49. Landscaping		657
50. Parking		658
PART 3: HOSPITAL ADMINISTRATION		
51. Hospital Acquired Infection		661
52. Management: A Conceptual and Experiential Approach		671
53. Staffing Pattern		692
54. Healthcare Waste Management and Ecohealth		698
55. Telemedicine		708
PART 4: THE ENLIGHTENMENT AND SCIENTIFIC REVOLUTION		
Recent Advances and Future Trends		
56. Shaping Tomorrow's Hospitals Today		713
57. The Hospitals of the Future		734
58. Project Management		750
59. Recent Trends in Hospital Design and Construction		762
60. The Physical Environment in the Hospital		786
61. Radiation Safety in Hospitals		795
62. Outpatient Services		809
63. Emergency Department		828
64. Recent Trends in Nursing Unit		856
65. Recent Trends in ICU Planning and Designing		882
66. Cardiac Catheterization Laboratory		912
67. Planning Patient-focused Surgical Suite System (Operating Department)		936
68. Managing Biomedical Equipment		964
69. Renal Dialysis Unit 70. Rehabilitation Medicine		969 982
71. Human Resource Planning		990
71. Recent Advances and Future Trends in Quality Management		1004
73. Some Most Beautiful Hospitals in the World		1004
74. Physician Oaths		1022
Glossary		1037
·		1039
Appendices		1040
Appendix 1: Constitution of the Community Hospital		1049
Appendix 2: General Evaluation and Checklist for any Existing Building		1051
Appendix 3: Fire Safety in Hospitals		1053
Index		1057