CONTENTS

Preface xv
About the Editors xxi
About LESI xxiii

Part 1
TERRITORIAL COMMENTARIES

1 Licensing and Technology Transfer to China: A Roadmap 3
by Henry Beck and Xichun (Catherine) Pan

Introduction 3
“Free Riding” Past and Present 3
China Joins the World Economy 4

Intellectual Property Protection and Enforcement 5
Intellectual Property Rights Have Little Extraterritorial Force 5
International Treaties and Conventions/Trade Remedies 5
China’s Intellectual Property Protection Regimes 7

Enforcement of Intellectual Property Rights and the Threat of Trade Sanctions 9

U.S. and Chinese Export and Import Control Regulations:
“Outbound” and “Inbound” 17
U.S. Export Control Regulations 17
China’s Regulations for Technology Imports and Exports 22

Concluding Thoughts 24

2 Software Licensing as a Driver of the Indian Economy 27
by Rani Boazz and Subramaniam Vutha

Introduction 27
Background 27
The Scope of the Chapter 29

The Economic Impact of Software Licensing in India
and Current Business Trends 29

The Legal Framework for Software Licensing in India 32
Copyright Law 32
Contracts 32
Trade Secrets Law 32
Patent Law 33
Taxes and Duties 33
Reproduction of Software in India 34

Insights into the Special Needs and Legal Requirements
of the Indian Software Market 34
Outlook for the Indian IT Industry 35

3 The Industrialization of Korea (1962 to 2002) from the Patenting and Licensing Perspective 37
by Yoon Bae Kim
Introduction 37
Overview of the Korean Economy and Trends in Technological Development According to Historical Dates 38
Before 1962 (Japanese Colonial Rule and the Korean War) 38
From 1962 to 1991 (National Economic Development Plans) 39
From 1992 to the First Half of 1997 (between the Post-Economic Development Plan and the Foreign Currency Crisis) 42
From the Second Half of 1997 to 2002 (Foreign Currency Crisis and Innovation-Led Economic Growth) 43
Key Indicators of the Korean Economy 44
Key Indicators of Korea’s Macrotechnological Capability 45
The Impact of the Korean Patent System and Licensing Regulation on Korea’s Technological Development 47
The Patent System 48
Formulation of Law on Protection of Computer Program Copyright 49
Licensing Regulation 50
Patenting and Licensing Trends by Industry 52
Chemicals (Petrochemicals and Fine Chemicals) 53
Shipbuilding 54
Steel and Iron Manufacturing 55
Automobiles 56
Aerospace 56
Semiconductors 57
Electronics and Telecommunications 58
Conclusions 59

4 Japan on Its Way to Revitalization 63
by Jinzo Fujino
Introduction 63
Overview of Technology Trade 64
Shifting to a New Knowledge-Based Economy 65
Overhauling Japan’s Intellectual Property Scheme 66
Intellectual Property Promotion Plan 2004 67
Creation of New Inventions 67
Protection of Intellectual Properties 68
Enhancing the Utilization of Intellectual Properties 69
Promotion of the Contents Business 70
Development of Human Resources in the Intellectual Property Arena 70
Protection from Foreign Counterfeits 70
Conclusions 71
Commentary 72
5 Secrets of Successful Dealmaking in Asia
by Dennis Unkovic

Introduction 75
Factors Influencing Asian Business Deals 76
Thailand 77
Malaysia 78
Singapore 79
Indonesia 81
Asian Diversity 82

6 Modern Mexican Laws Governing Intellectual Property, Licensing, Antitrust, R&D, and Inventors’ Rights
by Oscar M. Becerril and Hector E. Chagoya

Introduction 83
The Mexican Antitrust Law 84
The North American Free Trade Agreement (NAFTA) 86
The Freedom-to-Research Issue 87
Benefiting from the Mexican Industrial Property and Licensing System: Some Hints 88
Franchise Contracts 89
Licensing in the Pharmaceutical Sector 89
Licensing of Biotechnology 90
Licensing of Copyrights 90
R&D Contracts 91
The Mexican Employees’ Inventions System: Another Reason to Consider Mexico for R&D Activities 92
Patenting Controversial Technologies in Mexico 94
Computer-Implemented Technologies 94
Biotechnology 94
Remuneration to Employees for Their Inventions under Mexican Law 93
Conclusions 95

7 Licensing in Scandinavia: Home of Entrepreneurial Inventors, Industrialists, and Philanthropists
by Robert Goldscheider and Jonas Gulliksson

Introduction 99
Scandinavian Creativity 99
Finland’s Impact 100
Success Factors 101
“Scandinavian-Bred” Technology 102
Karl V. Palmaer 102
Haldex All Wheel Drive System 103
Ole-Bendt Rasmussen 104
Conclusions 106
Part 2
SCIENTIFIC ISSUES

8 Global Innovation and Licensing Opportunities on the Internet  
by John G. Palfrey, Jr.

Introduction 111
The Digital Media Revolution 112
The First Clash: Digital Music 112
The First Success: Apple’s iTunes 113
Globalization and the Internet 114
Outsourcing of Software Development Services 114
Open Source Software Development 115
Other Global Effects of the Information Technologies Boom 116
Looking Ahead: Web Logs, Syndication, and Aggregation 117
The Phenomenon of Web Logs 118
Really Simple Syndication 119
Conclusions 120

9 Energy and the Environment: Driving Technology and Licensing  
by Walter G. Copan

Energy and Human Progress 123
Energy in the Petroleum Age 124
The Environment and Sustainability 127
Global Climate Change and Emissions Trading Markets 128
A Triple Bottom Line 130
New Technologies Driving Technology Transfer 130
Energy Efficiency and Resource Conservation 130
Green Buildings 131
Energy Efficiency and Emissions Control for Transportation 132
Electric and Hybrid Vehicles 133
Hybrid Vehicle License Strategies 133
Evolution of Fuels 134
Natural Gas Fuel 135
Biofuels 135
Distributed Power 136
Power Plants 137
Renewable Energy 137
The Hydrogen Economy 139
Fuel Cells 140
Venture Capital and Institutional Investment 140
The Role of Licensing in the Energy World 142
New Value Options for Licensing in Energy and the Environment 143
Risk Management Value 145
Emissions Reduction Value 145
Direct Policy Incentives 145
Reduced Resource Use 146
Corporate Social Responsibility 146
Societal Economic Benefits 146
Technology Transfer Value 147
Acknowledgments 147

10 Essentials of Licensing Biotechnology, Nanotechnology, and Other Cutting-Edge Technologies 151

by Manya S. Deehr and Mary Ann Stretch

Introduction 151
Definitions 152
Improvements 153
Field of Use 154
License Grant 154
Information, Data, and Results 155
Source of Intellectual Property: Federal Funding and Academic Contributions 156
License or Divestiture 158
Patent Sections 159
Conclusions 160

11 The Big Picture: Nanotechnology Impacts Everyone 163

by Robert C. Shaddox

Introduction 163
Licensing Nanotechnology 164
Overview 164
Definitions 165
Ownership/Encumbrances 166
Timing 167

Technology Licensing 168
Overview 168
Definition of Licensed Property/Licensed Products 168
Granting Clause 169
Termination Provisions 169
Consideration 169
Territory or Field of Use 170
Patent Protection 172
Infringement Actions 173
Confidentiality 175
Assignment and Sublicense 175
Conclusions 176

12 Ensuring Royalty Compliance in High-Technology Licensing 179

by Arthur M. Nutter

Introduction 179
Intellectual Property versus Real Property 179
High-Technology Licensing Programs 180
Phase One 180
Technical Investigations: Treasure Hunting 182
Courtroom Discovery versus Reverse Engineering 182
Analyzing Semiconductors 183
Contents

Microcontroller-Based Product Analysis 184
Black Box Testing 184
Dumb Patents 185
Software 186
New Laws in the United States 186
Open Source Strategies 187

Part 3
BUSINESS, LEGAL, AND PROFESSIONAL ISSUES

13 Licensing Challenges Encountered by a Multinational Law Firm 191
by Michael A. Epstein
Introduction 191
Knowledge Management 192
Maintaining Geographical Spread 193
Providing Subject Matter Diversity 194
Utilizing Litigation Expertise 195
Preserving Experience as to Past Deals 197
Leveraging Relationships 198
Conclusions 198

14 Small Companies’ View of Licensing 201
by Norman A. Jacobs
Introduction 201
Acquiring Technology (Licensing In) 202
Granting Technology Rights (Licensing Out) 203
Identify Potential Licensees 204
Overcome the Confidential Disclosure Barrier 205
Consider a Joint Development Program 205
Define Fields of Use 206
Consider Novel Royalty Structures 206
Use a “Distress” License to Increase Product Sales 207
Determining the Value of Technology 207
Ensuring Licensee Diligence 208
Conclusions 209

15 Managing Intellectual Property Allocation in Joint Ventures 211
by Ron Laurie
Introduction 211
JV Structural Models 211
The Contractual Model 212
The Entity Model 212
The Two-Stage Model 213
Intellectual Property Allocation in General 214
The Default Allocation Paradigm: Joint Ownership 214
Preferred Intellectual Property Allocation Strategies 217
Contents  xiii

Application of Intellectual Property Allocation
Strategies to the JV Structural Models  218
   The Contractual Model  218
   The Entity Model  220
   The Two-Stage Model  222
Exit Strategies  226
   Merger or Acquisition of the JV Entity  226
   Dissolution of the JV Entity  226
Conclusions  228

16 Experience in Norway with Strategic Alliances as a Work Form When Commercializing Technology
by Håkon Haugen and Tor Oppedal
Introduction  231
The Particle Business in DYNO—and Beyond  231
From Idea to Market  232
Critical Success Factors for a Company Based on New, Advanced Technology  233
   Technology  233
   Infrastructure  233
   Products  233
   Market Apparatus  233
   Alternative Strategies  234
DYNO’s Particle Development: A Strategic Evaluation  234
Establishment and Execution of Strategic Alliances:
   A General Evaluation of Relationships  234
      Choice of Partner  235
      Establishing the Alliance  235
      Administration and Leadership of Joint Activities  236
Experiences of Dyno Particles: Examples  237
      Dynal Biotech ASA: Biomagnetic Separation  237
      Pharmacia Biotech AB: Chromatographic Purification of Biomaterial  238
General Conclusions Based on Our Experiences  239

17 Application of Game Theory to Intellectual Property Royalty Negotiations
by John C. Jarosz and Michael J. Chapman
Introduction  241
Usefulness of Game Theory  241
Bargaining Basics  243
   A Simple Bargaining Game  244
   An Intellectual Property Licensing Game  245
The Nash Bargaining Solution (NBS)  247
   Description  247
   Extension to Licensing  252
Estimation of NBS  258
   Disagreement Profits ($d_f$)  259
Contents

Total Profits (II) 260
Bargaining Power (α) 260
Conclusions 263

18  Administration and Auditing of License Agreements to Promote Control and Harmony 267
by Margaret (Peggy) Moizel
Introduction 267
Management Plan for Maintaining Licensee Agreements 267
  Negotiation Steps 268
Inventory of Agreements 270
  Remuneration Calculation 270
Conclusions 272

Suggested Reading List 273

Index 279