

Recruiting & Retaining Engineers from India

Pradeep Anand

@

Hart's Recruiting & Retention Conference

December 2006

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Agenda

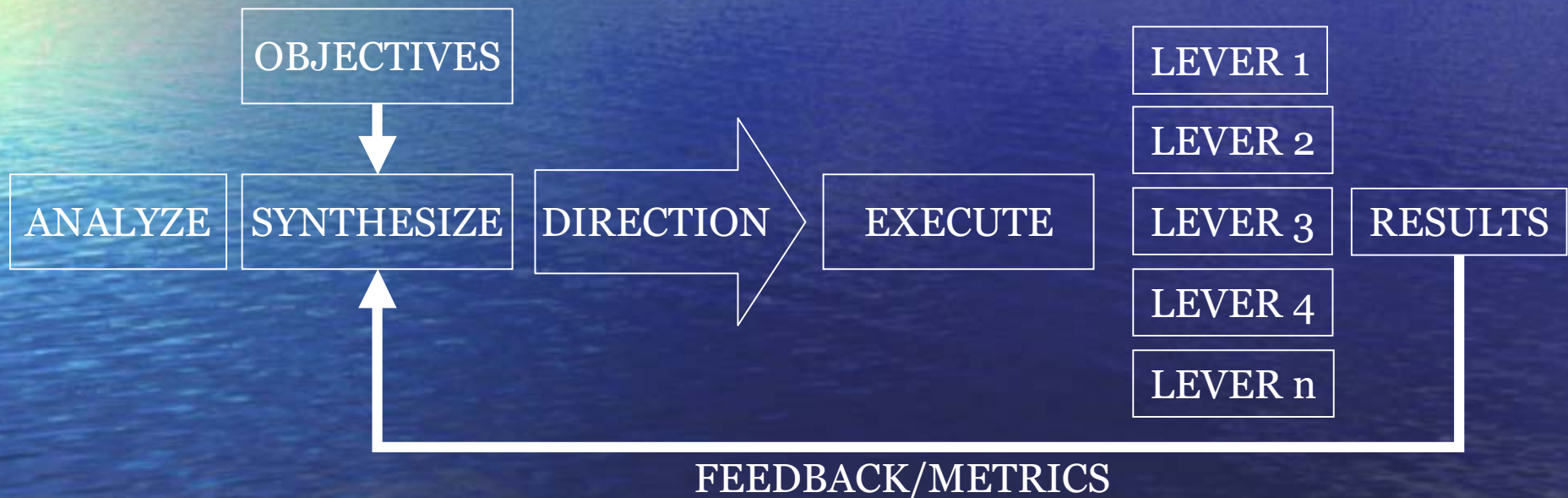
- Framework
- Understanding India & Indians
- Indian Engineers & Scientists
- IIT Engineers

3 Questions

Where are we?

Where should we go?

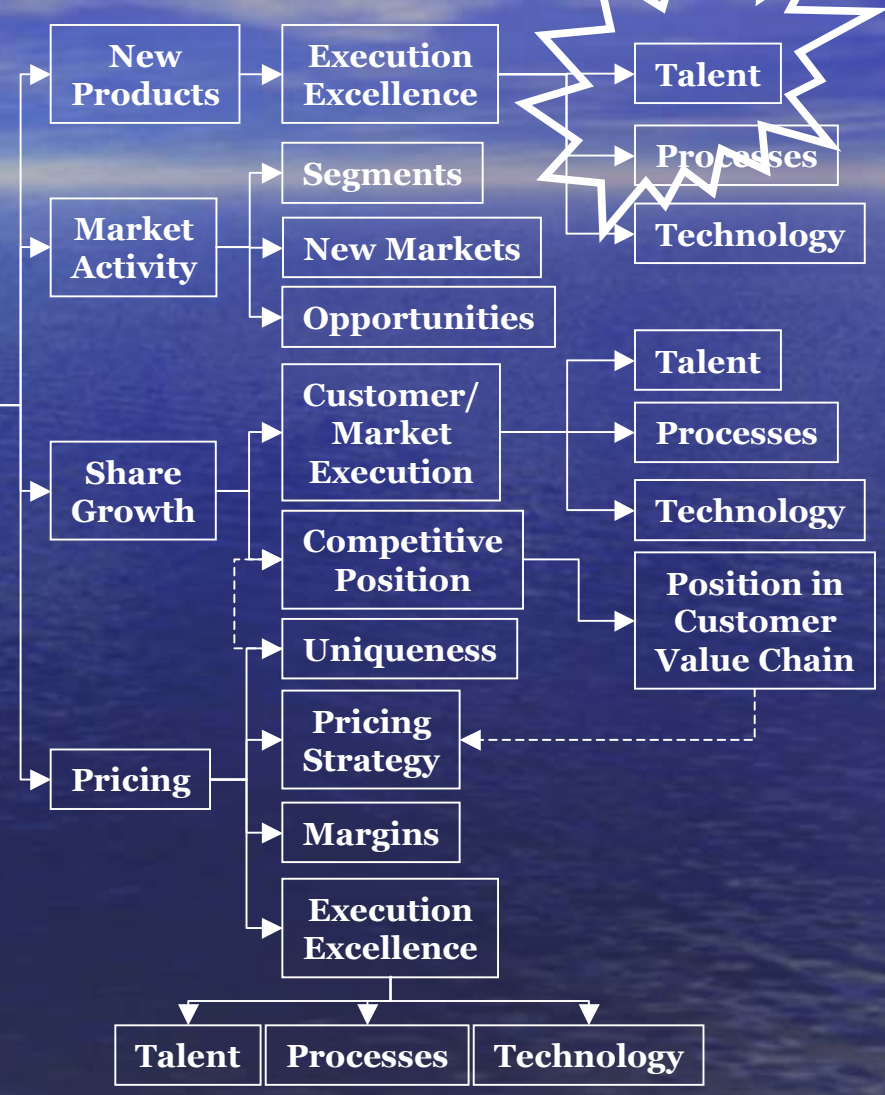
How do we get there?



Where are we?

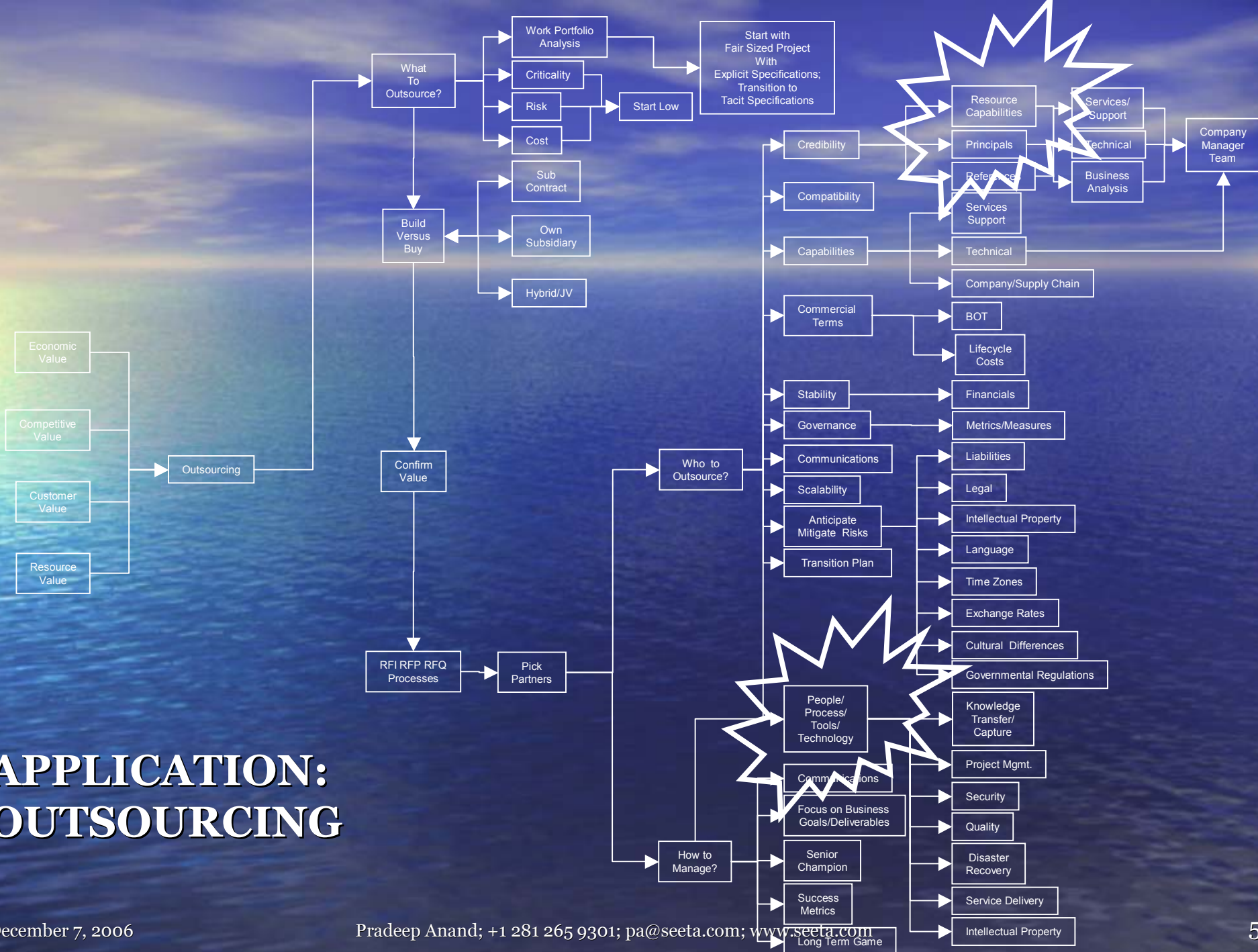
Where should we go?

How do we get there?



**APPLICATION:
REVENUE/MARGIN
GROWTH**

APPLICATION: OUTSOURCING

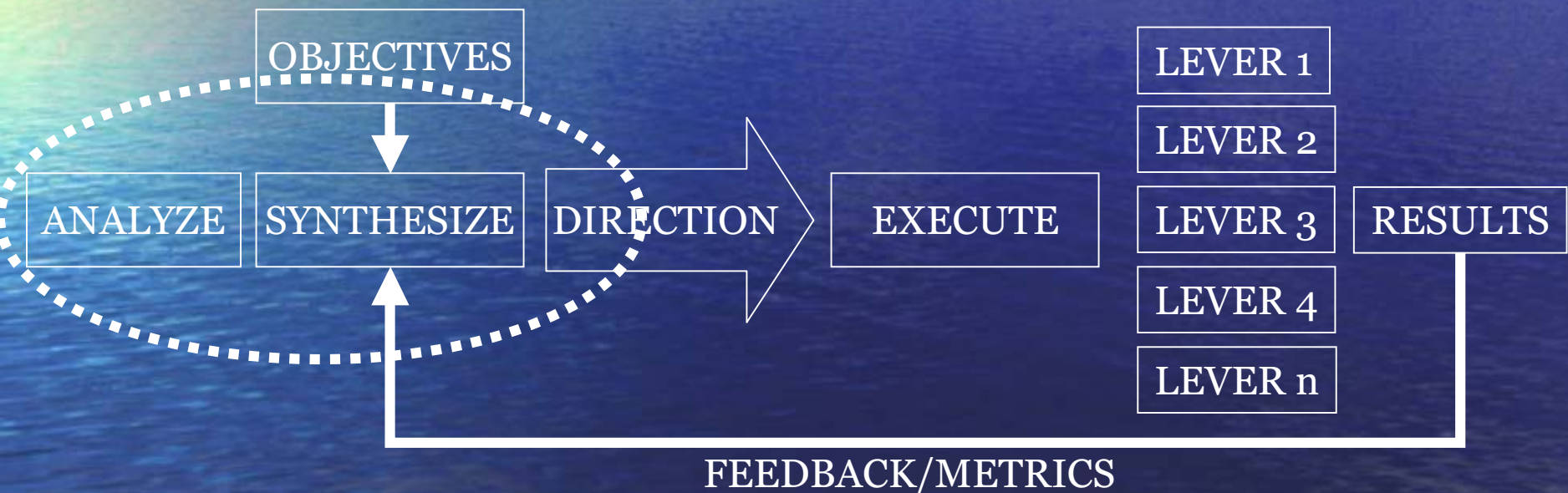


3 Questions & Indian Engineers

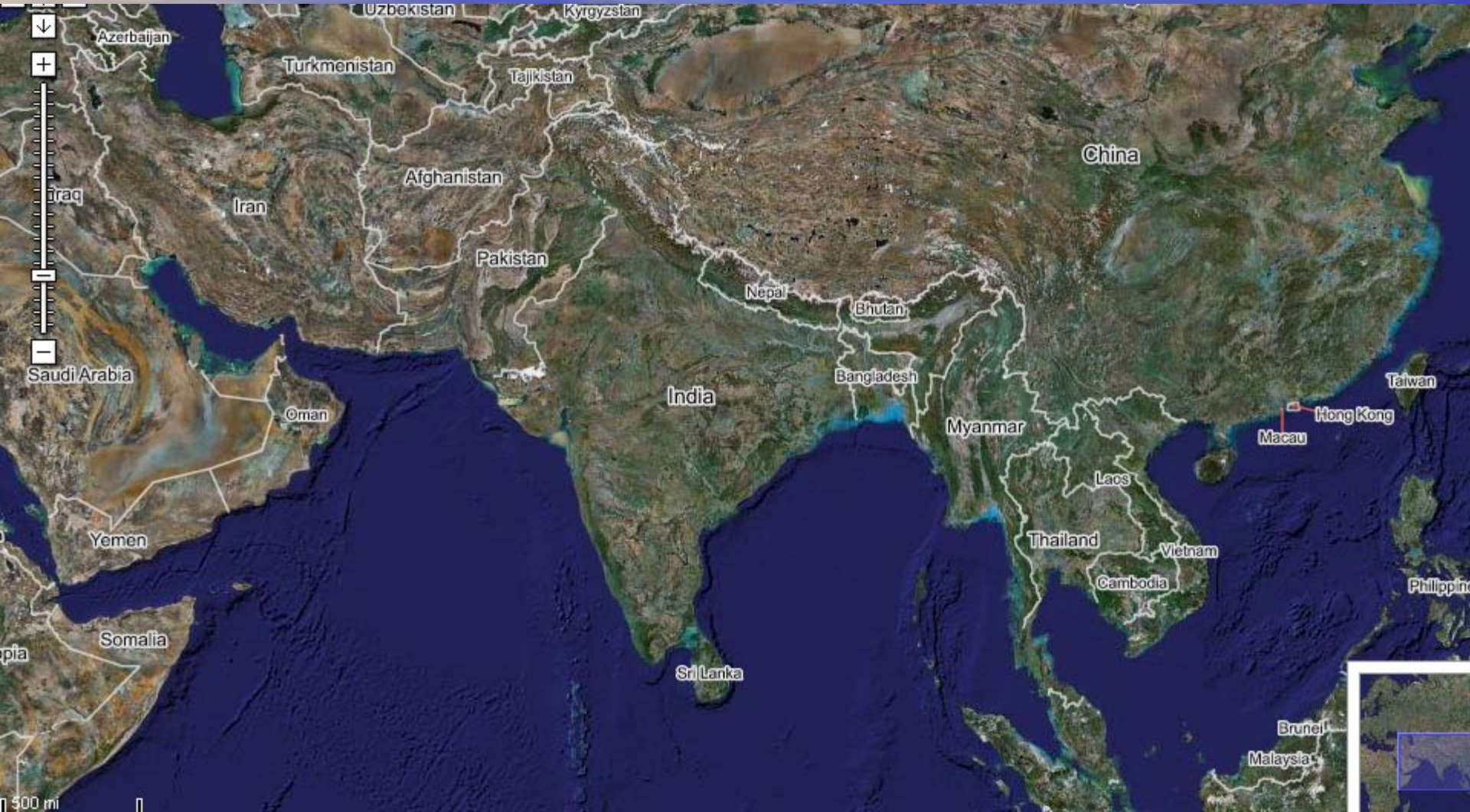
Where are we?

Where should we go?

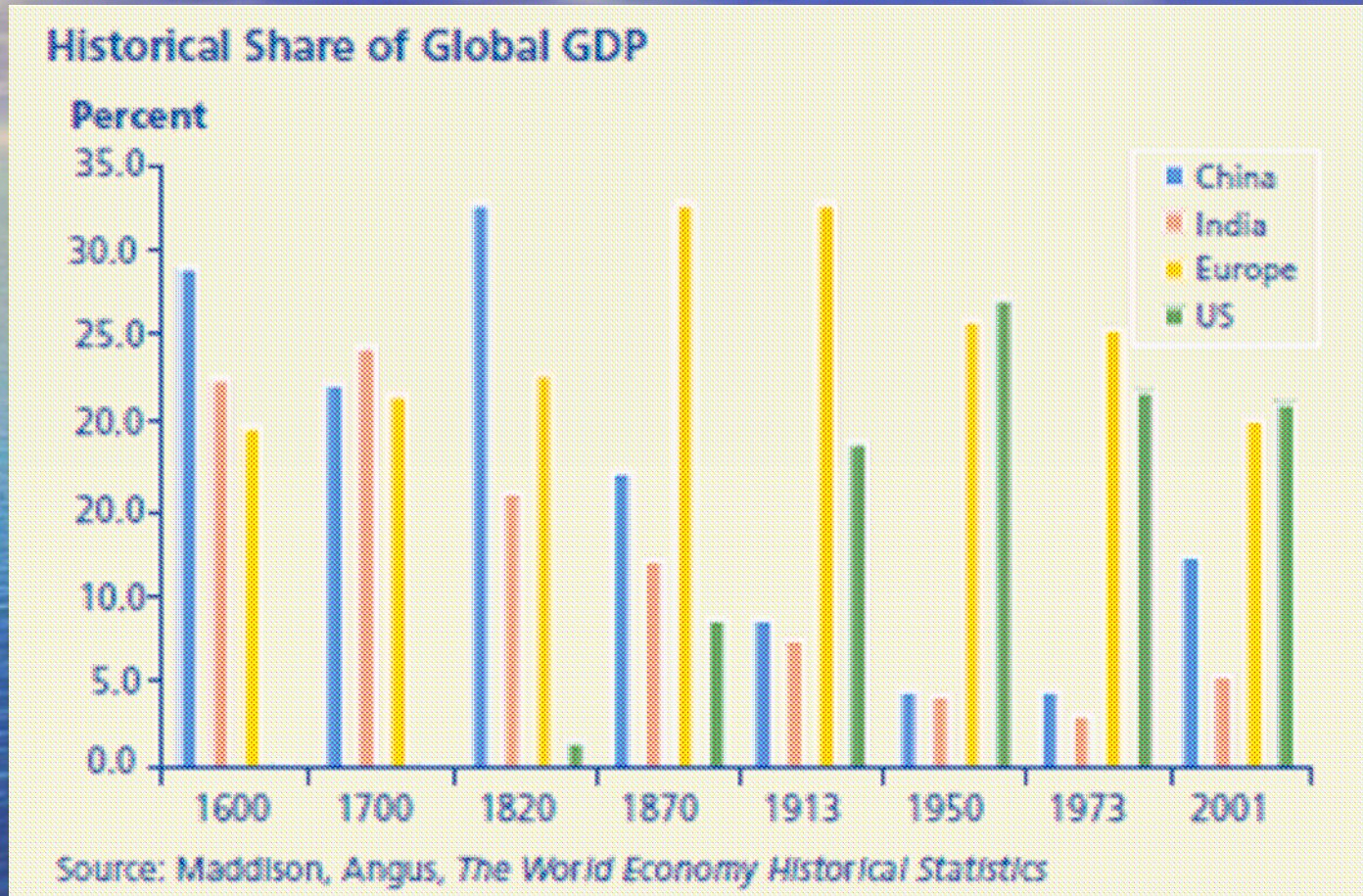
How do we get there?



India: Geography



India: History



Macro Influencers

- Growth
- Maturity
- Decline
- Revival

- Neutral
- Equidistant
- Separation of Church & State

- Lifecycle
- Mythology
- Hinduism
- Buddhism
- Sikhism
- Jainism
- Zoroastrianism
- Christianity
- Islam
- Judaism
- Secularism
- Brahmin
- Kshatriya
- Vaishya
- Shudra
- Assamese
- Bengali
- English
- Gujarati
- Hindi
- Kannada
- Malayalam
- Marathi
- Oriya
- Punjabi
- Rajasthani
- Tamil
- Telugu
- Urdu

Micro Influencers

- Pre-Colonial
- Colonial
- Post-Colonial
- Medicine
- Mathematics
- Astronomy
- Science
- Politics
- Music
- Architecture
- History
- Spirituality
- Caste
- Geography
- Weather
- Language
- Neighbors
- Migration
- Profession
- Demographics
- Ethics
- Cuisine
- Gender
- Education
- Class
- Culture
- Art

UNDERSTANDING INDIA & INDIANS

- Natural Resources
- Energy
- Water
- Food
- Capital
- Workforce
- Health
- Weather

Resources

- Training
- Demographics
- Work Ethic

- China
- Pakistan
- Sri Lanka
- Bangla Desh
- Nepal
- Myanmar
- Southeast Asia
- Middle East
- East Africa
- Governance
- Law
- Politics
- Infrastructure
- Bureaucracy
- Economics
- Security
- Taxes
- Capitalism
- Socialism

Institutions

Indian Engineers/Scientists

- 200 Million children
- Education as an ethic
- Science & Math tradition
- English is an 'official' language
- Educational resources supplemented by:
 - NGOs
 - Private schools and colleges

Top 100 Engineering Colleges

OUTLOOK india .com

Top 100 Engineering Colleges In India

A recent flurry of private institutes has helped improve the scene, especially in south India

Rank	Name of Institute	City	G/P	IC (30)	I&F (20)	PS (15)	II (15)	P (20)	T (100)
Government = G; Private = P; Intellectual capital =IC; Infrastructure and Facilities=I&F; Pedagogic Systems=PS; Industry Interface=II; Placements=P; T= Total;									
1	IIT Kanpur	Kanpur	G	28.3	18.9	13.8	13.2	18.5	92.7
2	IIT Kharagpur	Kharagpur	G	27.9	18.8	13.7	13.5	18.3	92.2
3	IIT Bombay	Mumbai	G	27.2	18.6	13.0	13.7	18.7	91.2
4	IIT Madras	Chennai	G	26.7	18.3	13.3	12.9	17.8	89.1
5	IIT Delhi	Delhi	G	26.1	18.5	12.7	13.4	18.1	88.8
6	BITS Pilani	Pilani	P	25.8	17.8	13.5	13.5	17.3	87.9
7	IIT Roorkee	Roorkee	G	25.5	18.6	12.9	12.4	16.3	85.6
8	IIT-BHU	Varanasi	G	23.9	18.2	12.7	11.9	15.9	82.6
9	IIT Guwahati	Guwahati	G	25.2	18.1	12.5	10.5	15.1	81.4
10	College of Engg. Anna University	Guindy	G	25.3	16.7	12.4	12.8	14.1	81.3
11	Jawahar Institute of Technology, Faculty of Engg & Tech	Calcutta	G	25.2	16.4	11.7	11.4	15.4	80.1
12	Indian School of Mines	Dhanbad	G	24.7	15.5	12.2	12.2	14.7	79.3
13	NIT	Warangal	G	24.9	16.9	11.8	11.5	14.0	79.1
14	BIT, Mesra	Ranchi	P	23.6	13.7	12.3	12.3	14.2	76.1
15	NIT	Trichy	G	24.0	17.3	10.4	10.5	13.5	75.7
16	Delhi College of Engineering	New Delhi	G	22.4	15.9	12.6	10.8	13.8	75.5
17	Punjab Engineering College	Chandigarh	G	22.0	17.7	10.1	09.3	15.8	74.9
18	NIT	Surat	G	23.9	17.1	10.3	10.1	13.3	74.7
19	Motilal Nehru National Inst. of Technology	Allahabad	G	22.8	16.5	11.3	09.9	14.1	74.6
20	Thapar Inst of Engineering & Technology	Patiala	P	21.6	16.3	12.3	12.2	12.0	74.4
21	Bengal Eng and Science University, Shibpur	Hovrah	G	23.0	15.7	12.0	10.5	12.1	73.3
22	MANT	Bhopal	G	23.5	16.3	10.6	10.4	12.4	73.2
23	PSG College of Technology	Coimbatore	G	21.8	14.9	09.8	13.6	12.8	72.9
24	IIT	Hyderabad	G	21.3	16.3	10.3	10.7	13.9	72.5
25	Harcourt Butler Technological Institute	Kanpur	G	23.0	15.5	11.3	10.2	12.4	72.4
26	Malviya National Institute of Technology	Jaipur	G	22.5	16.5	10.4	09.2	13.0	71.6
27	VNIT	Nagpur	G	21.8	15.7	10.8	10.2	12.5	71.0
28	NIT	Kozhikode	G	21.9	16.8	09.9	10.2	11.9	70.7
29	Dhirubhai Ambani ICT	Gandhinagar	P	22.7	16.3	10.6	09.6	11.2	70.4
30	Osmania Univ. College of Engineering	Hyderabad	G	22.7	14.0	10.3	10.9	12.4	70.3

31	College of Engineering, Andhra University	Vishakhapatnam	G	22.5	12.7	10.7	10.8	13.5	70.2
32	Netaji Subhas Institute of Technology	New Delhi	G	22.0	16.5	09.3	09.7	12.0	69.5
33	NIT	Kurukshetra	G	21.8	15.7	09.9	09.6	12.0	69.1
34	NIT	Rourkela	G	20.4	14.6	10.3	10.3	13.3	68.9
35	SVNIT	Surat	G	20.3	14.2	10.1	10.6	13.6	68.8
36	Govt. College of Engineering	Pune	G	21.2	12.2	11.1	11.5	12.7	68.7
37	Manipal Institute of Technology	Manipal	P	21.7	12.8	11.2	10.4	12.5	68.6
38	JNTU	Hyderabad	G	21.8	12.5	10.9	10.2	12.9	68.3
39	R.V. College of Engineering	Bangalore	P	20.6	13.2	10.8	10.6	13.0	68.2
40	NIT	Jamshedpur	G	19.9	13.4	10.4	10.4	14.0	68.1
41	University Visvesvaraya College of Engg.	Bangalore	G	22.0	13.3	09.6	09.9	12.8	67.6
42	V.JTI	Mumbai	G	20.3	12.6	10.7	10.5	13.4	67.5
43	Vellore Institute of Technology	Vellore	P	20.3	16.9	09.8	10.1	10.3	67.4
44	Coimbatore Institute of Technology	Coimbatore	G	20.4	13.0	10.8	12.2	10.9	67.3
45	SSN College of Engineering	Chennai	P	21.4	12.7	11.3	11.2	10.6	67.2
46	IIT	Allahabad	G	19.2	13.6	12.0	10.5	11.8	67.1
47	College of Engineering	Trivandrum	G	19.3	16.1	08.9	09.4	13.3	67.0
48	NIT Durgapur	Durgapur	G	20.5	12.4	11.3	10.7	12.0	66.9
49	SIT	Calcutta	G	22.9	13.4	10.1	08.9	11.5	66.8
50	Mumbai University Inst of Chemical Tech	Mumbai	G	20.2	12.5	11.4	10.0	12.6	66.7
51	Sardar Patel College of Engineering	Mumbai	P	20.1	12.7	10.2	10.4	13.2	66.6
52	P.E.S. Institute of Technology	Bangalore	P	19.5	13.1	11.0	11.7	11.0	66.3
53	Maharashtra Institute of Technology	Pune	P	20.3	13.4	10.0	10.2	12.3	66.2
54	Amrita Institute of Technology & Science	Coimbatore	P	19.8	12.2	12.1	10.5	11.5	66.1
55	National Institute of Engineering	Mysore	P	19.6	11.9	12.0	10.2	12.2	65.9
56	B.M.S. College of Engineering	Bangalore	P	19.7	13.1	10.9	09.6	12.3	65.6
57	Laxminarayan Institute Of Tech.	Nagpur	G	20.3	12.4	10.3	10.1	12.4	65.5
58	Nirma Institute of Technology	Ahmedabad	P	19.3	13.9	10.2	10.0	12.0	65.4
59	IIT	Pune	G	19.4	12.6	10.2	10.3	12.7	65.2
60	Amity School of Engineering	Noida	P	19.7	13.5	09.3	10.1	12.5	65.1
61	JNTU	Kakinada	G	19.8	12.9	09.8	10.1	12.4	65.1
62	S.J. College of Engineering	Mysore	P	19.7	12.8	10.8	09.4	11.9	64.6
63	Chaitanya Bharathi Inst. of Technology	Hyderabad	P	19.3	13.3	09.8	09.2	12.9	64.5
64	IIT	Bangalore	G	19.0	11.6	12.1	10.7	10.9	64.3
65	SRM Institute of Science and Technology	Chennai	P	21.0	12.4	09.3	08.4	13.1	64.2
66	SASTRA	Thanjavur	P	18.5	13.2	12.0	10.3	10.1	64.1
67	Bangalore Institute of Technology	Bangalore	P	19.5	11.8	10.5	10.2	12.0	64.0
68	The Technological Inst. of Textile & Sciences	Bhiwani	G	19.7	12.9	11.3	09.3	10.7	63.9
69	IIT	Gwalior	G	19.7	12.7	10.2	10.3	10.9	63.8
70	JNTU	Anantpur	G	18.9	12.4	11.3	09.0	11.8	63.4
71	M.S. Ramaiah Institute of Technology	Bangalore	P	18.7	14.2	10.1	08.7	11.5	63.2
72	Gitam	Vishakhapatnam	P	19.2	14.8	10.6	06.2	12.3	63.1
73	NIT	Hamirpur	G	18.3	14.8	09.7	07.9	12.2	62.9
74	NIT	Jalandhar	G	19.6	12.7	09.3	09.1	12.2	62.8
75	SV University Engineering College	Tirupati	G	19.8	11.5	10.3	10.1	10.7	62.4
76	NIT	Raipur	G	18.7	13.1	09.6	09.1	11.8	62.3
77	Vasavi College of Engineering	Hyderabad	P	19.6	14.1	09.6	07.1	11.8	62.2
78	The ICFAI Inst of Science and Technology	Hyderabad	P	20.5	08.4	11.9	11.6	09.7	62.1
79	NIT	Patna	G	19.7	12.2	10.7	09.2	10.2	62.0
80	Cummins College of Engg for Women	Pune	G	20.1	08.7	11.7	11.3	10.1	61.9
81	VIT	Pune	P	17.9	11.2	11.7	10.0	10.5	61.3
82	Shri Ramdeo Baba K.N. Engineering College	Nagpur	P	18.7	13.3	10.4	08.2	09.7	60.3
83	Muffakham Jah Engineering College	Hyderabad	P	17.1	12.2	08.1	10.2	12.4	60.0
84	Karunya Institute of Technology	Coimbatore	P	18.1	12.1	08.9	08.4	12.3	59.8
85	D.J. Sanghvi	Mumbai	P	18.2	12.9	08.1	09.5	11.0	59.7
86	Sathyabhama Engineering College	Chennai	P	17.6	12.4	09.5	08.2	11.8	59.5
87	Kongu Engineering College	Erode	P	17.8	12.7	09.3	08.5	11.2	59.4
88	Mepco Schlenk Engineering College	Sivakasi	P	17.5	13.8	08.7	08.5	10.8	59.3
89	Guru Nanak Dev Engineering College	Ludhiana	G	17.7	12.4	08.6	08.8	11.6	59.1
90	Hindustan Inst of Engineering Technology	Chennai	P	18.9	11.3	09.2	09.3	10.2	58.9
91	SDM College of Engineering	Dharwad	P	16.5	12.7	08.0	09.6	11.7	58.5
92	R.V.R. & J.C. College Of Engg	Guntur	P	16.8	12.1	09.6	08.7	11.2	58.4
93	Jamia Millia Islamia, New Delhi	New Delhi	G	19.8	10.2	08.8	08.7	10.8	58.3
94	K.L. College of Engineering	Veddeswaram	P	17.8	12.8	09.4	07.5	10.7	58.2
95	Dharmasinh Desai Institute of Technology	Nadiad	P	18.1	12.1	10.3	09.1	10.1	57.7
96	S.G.S. Institute of Technology & Science	Indore	G	16.1	11.3	09.8	09.5	10.3	57.0
97	Jabalpur Engineering College	Jabalpur	G	15.9	12.5	08.2	08.5	11.8	56.9
98	Sree Chitra Thirunal College of Engineering	Trivandrum	P	15.5	12.5	07.9	08.7	09.9	54.5
99	G.H. Patel College of Engg & Technology	Vidyanagar	G	15.1	12.8	09.5	07.4	09.6	54.4
100	Kalinga Institute of Industrial Technology	Bhubaneswar	P	14.9	12.9	08.1	08.5	09.8	54.2

17th July 2006

The IITs

- 7 campuses
 - Chennai
 - Delhi
 - Guwahati
 - Kanpur
 - Kharagpur
 - Mumbai
 - Roorkee
- >5000 graduates per year
- Engineering, Sciences, Geosciences





"Pradeep Anand has put together a collection of highly enjoyable stories about the many challenges of being a brown-skinned techie in Texas. Immigrants everywhere will relate to this perceptive and relevant book."

Chitra Divakaruni, award-winning author and poet

"*An Indian in Cowboy Country* is a must read. Pradeep has done an amazing job, with great simplicity, in chronicling, through stories about Satish Sharma, an Asian Indian's journey in an alien society, simultaneously maintaining one's moorings and moral center."

Nandan Nilekani, CEO, Infosys Technologies Limited

"Businesses, business schools, and cultural studies departments at schools and colleges will benefit immensely from this book. Pradeep Anand weaves, with fascinating simplicity, warm and authentic stories about Asian Indian immigrants and their experiences in America."

Amar Bhidé, Lawrence D. Glaubinger Professor of Business,
Columbia University Graduate School of Business

Pradeep Anand is a graduate of the Indian Institute of Technology, a prestigious engineering school in Bombay, India, and has an MBA from the University of Houston. He is president of Seeta Resources (www.seeta.com) and lives with his family in a Houston suburb.



AN INDIAN IN COWBOY COUNTRY

Pradeep Anand

AN INDIAN IN COWBOY COUNTRY

Stories from an Immigrant's Life

Foreword by
Nandan Nilekani, CEO, Infosys Technologies Limited

"Pradeep Anand has given voice, in a very sincere, real way, to the phenomenon of overachieving Indians assimilating into the fabric of American life. This journey is comical, poignant, and – until now – little known outside the world of those experiencing it. A good read, whether you grew up in India, the U.S., or anywhere else!"

Michael Berry, Mayor Pro Tem, Houston, Texas

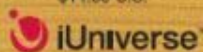
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