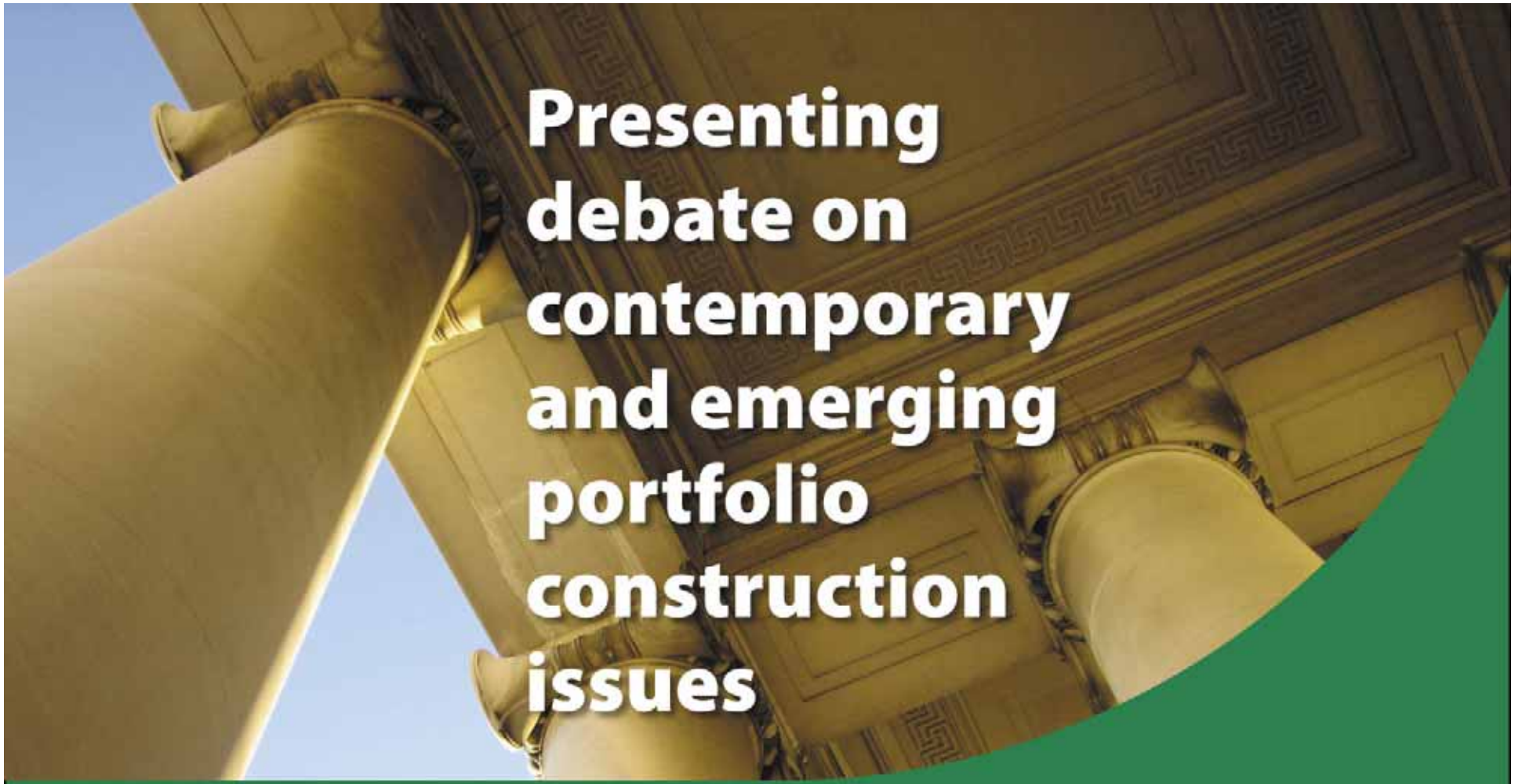


Presenting debate on contemporary and emerging portfolio construction issues

portfolio construction

CONFERENCE

15 & 16 August 2007 | AJC Convention Centre, Randwick, Sydney

INDIA – AHH!

THE "RENT-a- BRAIN"

SUPERMART

INDIA – AHH!

"BLESSED ARE THE M(G)EEK FOR THEY SHALL INHERIT THE EARTH".

(Adapted with full humility from the Holy Bible; Matthew, Chap.5, Verse 5)

INDIA
THE I.T. SUPERPOWER
THE NEW NIRVANA
INDIA`S I.T. GEEKS ON A ROLL ! !

INDIA-AHH !

FOR DECADES AFTER INDEPENDENCE IN 1945, INDIA WAS PILLORIED FOR:

-A POOR GDP GROWTH RATE OF 2%-3% WHILST THE ASIAN 'TIGERS' WERE BOOMING.

-BEING UNDER THE INFLUENCE OF THE USSR.

-SETTING UP 'WHITE ELEPHANT' EDUCATIONAL & SCIENTIFIC ESTABLISHMENTS PRODUCING JOBLESS GRADUATES.

INDIA-AHH !

MANY CAUSTIC COMMENTS WERE MADE ABOUT

INDIA & INDIANS. THE MOST FAMOUS ONE:-

'"I WOULDN'T F.....G HELP THE INDIANS, THEY ARE NO DAMN GOOD." - Richard Nixon

WELL, GUESS WHAT?

revenge of the nerds !!!

INDIA AND KNOWLEDGE

" THE WEST CREATED WEALTH THROUGH THE INDUSTRIAL REVOLUTION, WEST ASIA THROUGH OIL. NOW IT IS INDIA'S TURN TO CREATE WEALTH USING THE HUMAN MIND".

- Rajendra Pawar – Chairman, NIIT Ltd.

INDIA AND KNOWLEDGE

- **VEDAS (ANCIENT TEXTS) DESCRIBE KNOWLEDGE AS 'WEALTH'.**

- **MEDICAL SCIENCES, ASTRONOMY, METALLURGY FLOURISHED IN ANCIENT INDIA.**

INDIA AND KNOWLEDGE

BRIEF HISTORY : INDIAN SOFTWARE INDUSTRY

- ANCIENT INDIA LAID THE FOUNDATIONS OF MODERN ARITHMETIC, ALGEBRA,GEOMETRY, TRIGNOMETRY.

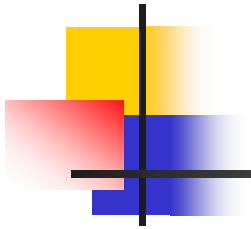
- INDIA GAVE THE WORLD:
- THE (ARABIC?) NUMERALS
- THE CONCEPT OF 'ZERO'
- THE DECIMAL SYSTEM.
- CONCEPTS OF FRACTIONS, SQUARE / CUBE ROOTS
- THE MINUS (-) SIGN
- CALCULATION OF 'pi'

INDIA AND KNOWLEDGE

BRIEF HISTORY : INDIAN SOFTWARE INDUSTRY

- **THE FIRST SOFTWARE PROGRAMS *(logical statements for problem solving)* WERE WRITTEN AS EARLY AS 476 A.D. (Bhaskara).**

- **MODERN I.T. CAME INTO EXISTENCE WHEN INDIA INVESTED IN EDUCATIONAL, R&D INSTITUTIONS AFTER INDEPENDENCE.**



INDIA AND KNOWLEDGE

BRIEF HISTORY : INDIAN SOFTWARE INDUSTRY

- **1956 : PURCHASE OF FIRST DIGITAL COMPUTER**
- **1963 : IIT BOMBAY GETS RUSSIAN RYAD COMPUTER**

1974 : SANCTIONS IMPOSED AFTER FIRST NUCLEAR TESTS

- **1975 : INDIA ESTABLISHES COMPUTER HARDWARE SELF RELIANCE PROGRAM WITH HELP FROM USSR AND FRANCE.**

INDIA AND KNOWLEDGE

BRIEF HISTORY : INDIAN SOFTWARE INDUSTRY

- **1974 : TCS ESTABLISHED. STARTS EXPORTS OF IT SERVICES TO BURROUGHS U.S.A.**

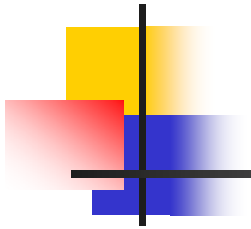
- **1977 : 1ST NON CONGRESS GOVT. EXPELS IBM AND ICL. LAID OFF ENGINEERS START I.T. SERVICES COMPANIES.**

- **1980 : HIGH COSTS OF HARDWARE AND LITTLE FOREIGN EXCHANGE MAKES INDIAN ENGINEERS CONNECT LOWER COST MINICOMPUTERS – THE WORLD GETS COMPUTER 'NETWORKS'!**

INDIA AND KNOWLEDGE

BRIEF HISTORY : INDIAN SOFTWARE INDUSTRY

- **1982 : SOFTWARE COMPANIES INCREASE EXPORTS TO PAY FOR BORROWED FOREIGN EXCHANGE.**
- **1984: RAJIV GANDHI LIBERALISES HARDWARE IMPORTS. DOMESTIC SOFTWARE MARKET PERKS UP.**
- **1985: BRITISH AIRWAYS, SWISS AIR, CITIBANK SET UP IT BACK UP OPERATIONS IN INDIA.**



INDIA AND KNOWLEDGE

BRIEF HISTORY : INDIAN SOFTWARE INDUSTRY

- **1986: TEXAS INSTRUMENTS ESTABLISHES FIRST 100% EXPORT SOFTWARE UNIT IN BANGALORE.**
- **1989: H.P. ESTABLISHES SOFTWARE EXPORT UNIT.**
- **1991: GOVT. ESTABLISHES SOFTWARE TECH. PARKS**

INDIA AND KNOWLEDGE

BRIEF HISTORY : INDIAN SOFTWARE INDUSTRY

1992 – INDIAN SOFTWARE ENGINEERS COMPLETE SWISS RAILWAYS PROJECT IN RECORD TIME AND WITH NO BUGS!

The 'Techno Coolies' were now a 'Class Act'.

1995 – 2000 : " GET THE INDIANS TO FIX THE Y2K DOOSMDAY SCENARIO".

1999-2001: " NOW GET THEM TO FIX THE 'EURO' THING"

INDIA AND KNOWLEDGE

- **EXPORTS OF I.T. /I.T. SERVICES = $ 50 BILLION p.a.**
  (TARGET = $ 60 BILLION BY 2010.)
- **400 OUT OF 500 FORTUNE 500 COMPANIES HAVE INVESTED.**

- **OVER 200 OF THEM HAVE DESIGN AND/OR BPO CENTRES.**

- **INDIA QUALIFIES ANNUALLY:**
  - 3.5 MILLION GRADUATES
  - 1 MILLION POST GRADUATES
  GROWING AT 10 – 15 % PER ANNUM.

INDIA AND KNOWLEDGE

SOME POPULAR SOFTWARE DEVELOPED IN INDIA

- GOOGLE ENTERPRISE SOLUTIONS
- BEIJING OLYMPICS CRM / BILLING SOFTWARE
- IBM LOTUS NOTES
- MS SHAREPOINT
- MICROSOFT 'MEDIA PLAYER-10', MUSIC SHARING
- RADIO 'MUNDU' (Internet Radio on Mobile phones)
- MOTOROLA 'RIZR' MULTIMEDIA SOFTWARE

INDIA AND KNOWLEDGE

% of all High Tech start up companies in the USA by Indians in period 1999 – 2005:

U.S.A. (OVERALL): 25% +

California: 39%

New Jersey: 37.8%

Michigan: 32.8%

of which:

Software: 46%

Innovation & Manufacturing: 44%

- **"Americas new Immigrant Entrepreneurs"**
- **- Report by Duke University (Jan. 2007)**

INDIA AND KNOWLEDGE

PERCENTAGE OF INDIANS AS EMPLOYEES OF :

- **IBM – 28%**
- **MICROSOFT – 22%**
- **INTEL – 17%**
- **XEROX – 13%**

TOMORROW'S INDIA

EMERGENCE AS THE WORLD'S R&D / DESIGN HUB

Some of the companies with major Global R&D in India:

Google, Yahoo, Intel, IBM, Adobe, Microsoft, Nokia, Adobe,

Daimler Benz (for biodiesel cars), Huawei & ZTE (China), SAP,

Oracle, Siemens, GE, Eli Lilly, Bayer, Motorola, Du Pont,

Astra Zeneca, Renault, Honeywell etc.

60% + of World's leading product companies source a part of their technology from India.

TOMORROW'S INDIA

EMERGENCE AS THE WORLD'S R&D/ DESIGN HUB

- India has in excess of 110 chip design entities.
- Entities in India have designed:
  - The IPOD chip (by PINEXE SYSTEMS, HYDERABAD)
  - Most DVD player chips
  - The 'Slingbox'

AND.....>

cingular
12:34 PM
SMS
9
Text
Calendar
Photos
Camera
Calculator
Stocks
Maps
Weather
Notes
Clock
Settings

TOMORROW'S INDIA

EMERGENCE AS THE WORLD'S R&D / DESIGN HUB

THE APPLE 'I – PHONE' CHIPS :

- MAIN PROCESSOR – SAMSUNG DESIGN, BANGALORE
- AUDIO PROCESSOR – WOLFSON MICRO, BANGALORE
- WI-FI CHIP – MARVELL, PUNE
- POWER AMP – SKYWORKS, NOIDA
- BLUETOOTH – CSR, BANGALORE
- RADIO – INFINEON, BANGALORE
- CONTROL CHIP – ARM, BANGALORE

TOMORROW'S INDIA

EMERGENCE AS THE WORLD'S R&D / DESIGN HUB

THE WORLD CLASS ECOSYTEM

R & D / DESIGN EXPORT REVENUES:
2005 - $ 8.5 BILLION
2010 - $ 30 BILLION (Est.)

•AUTOMOTIVE / AEROSPACE / ENGG. DESIGN : $ 2.5 BILLION IN 2006.

•BY YEAR 2015:
- 20 MILLION STUDENTS IN HIGHER LEARNING
- 2 MILLION ENGINEERING STUDENTS
- 75,000 PH.D's
- 270 + UNIVERSITIES

TOMORROW'S INDIA

EMERGENCE AS THE WORLD'S R&D / DESIGN HUB

NUMBERS OF R&D / DESIGN ESTABLISHMENTS : YEAR 2006

-INDIAN ENTITIES: 1500 +

-MULTINATIONALS / FOREIGN: 250+(Not incl. Chip designing)

-NATIONAL LABORATORIES : 200

- 25% + GLOBAL R&D SPEND IS IN INDIA.

TOMORROW'S INDIA

EMERGENCE AS THE WORLD'S R&D / DESIGN HUB

PRINCIPAL DISCIPLINES

- AEROSPACE / AVIONICS
- AUTOMOTIVE
- SHIP DESIGNING
- OIL RIG DESIGNING
- ELECTRONICS & GAMING
- ELECTRICAL MACHINES
- MECHANICAL ENGINEERING
- INTEGRATED CIRCUIT CHIP DESIGNING

TOMORROW'S INDIA

EMERGENCE AS THE WORLD'S R&D / DESIGN HUB

EMERGING AREAS OF R&D

- 3D MODELLING
- FINITE ANALYSIS
- COMPUTATIONAL FLUID DYNAMICS
- PLANT ENGINEERING
- PRODUCT RE-DESIGNING
- VALUE ENGINEERING
- CRASH SIMULATION
- TECHNICAL MANUALS
- CLINICAL RESEARCH etc.

TOMORROW'S INDIA

EMERGENCE AS THE WORLD'S R&D / DESIGN HUB

- **MULTINATIONAL GLOBAL DESIGN CENTRES e.g.**
  - Robert Bosch, Cummins, Johnson Controls, Piaggio, John Deere,Renault etc. etc.

- **INDEPENDENT DESIGN CENTRES e.g.**
  -Infotech Enterprises (Designing Airbus 350), Quest, EASI, Neilsoft, Quantech Global, Ramco, TCS, TCS-Ferrari, Infosys, Pelorus, HCL (for Konica – Minolta) etc.

TOMORROW'S INDIA

KNOWLEDGE PROCESS OUTSOURCING (KPO)

YEAR 2010: US$ 17 BILLION EXPORTS

EMERGING AREAS

LEGAL SERVICES, INSURANCE, EDUCATION , TRAINING, DRUG DISCOVERY, CLINICAL TRIALS, SHIP AND AIRCRAFT DESIGNING, BIOTECH, NANOTECH, PRESCRIPTION OPTICS, RADIOLOGY, MOVIE ANIMATION / TRANSLATION / SUBTITLING, PUBLISHING, ARCHITECTURAL DESIGNING etc. etc.

Think of a subject , it's already being done!

TOMORROW'S INDIA

MEDICAL TOURISM HUB

- **$ 2 BILLION BY YEAR 2012.**

e.g.

- **HEART SURGERY FOR $ 20K vs $ 200K (USA)**

- **MAJOR DRUG DEVELOPMENT COST**
  - ONLY $ 50 MILLION vs $ 1 BILLION (USA)

SUGGESTED READING: " STATE BY HEART – A Medical Tourist's True Story of Life saving surgery in India."
- Maggi Grace (Publishers : Harbinger)

TOMORROW'S INDIA

" AS EVERYONE KNOWS, INDIA HAS BECOME A GLOBAL LEADER IN INFORMATION TECHNOLOGY AND OTHER HIGH – TECH FIELDS SUCH AS PHARMACEUTICALS, TELECOMMUNICATIONS AND TELECOM BASED BUSINESS SERVICES.

ONE DAY, WE MAY LOOK BACK ON INDIA'S PROGRESS DURING THIS DECADE AS ONE OF THE GREAT HUMANITARIAN ACHIEVEMENTS OF OUR TIME."

- BILL GATES (In 'OUTLOOK BUSINESS' – MAY 2007)

TOMORROW'S INDIA

" INDIA IS THE HUB FOR HIGH – VALUE GLOBAL INNOVATION"

- SAM PALIMISANO, CHAIRMAN IBM (May, 2007)

DOES THIS SUM IT ALL? (From BBC)