

# *Welcome to this Presentation*

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- \* Resources (Staff Strength, Teaching & Research Facilities)
- \* Unique Features, Achievement and New Direction
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- \* Scholarship, Prize and External Awards
- \* Distinct Features of the 3 Engineering Programmes
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- \* More about the BEMTE Programme
- \* More about the BSIEEM Programme

# Milestones

- 84 Oct Inauguration of **City Polytechnic**
- 86 Nov 1<sup>st</sup> Academic Awards Ceremony at City Hall
- 87 Jul Establishment of **ME Department**
- 88 Sep Introduction of *HDME FT & PTE* programmes
- 89 Apr Relocation of campus  
Oct Introduction of **BEME FT** & *PgDEM* programmes. Accreditation of BEME by IProdE for 3 yrs
- 90 Sep Introduction of **BEME PTE** programme. De-centralization of the Centralized Laboratories.  
Oct Establishment of FST
- 91 Sep Discontinuation of *HDME FT & PTE* programmes
- 92 Sep Introduction of **BEMTE FT** & *MScIA* programmes. Upgrading of *PgDEM* to **MScEM**

- 93 Sep Introduction of **BEMTE PTE**. Graduation of the 1<sup>st</sup> MPhil student
- 94 Jan Renaming of City Poly. to **City U.**  
Sep Introduction of **BScDT PT** programme. Accreditation of BEME & BEMTE by IEE for 3 yrs
- 95 Sep Introduction of **MEMEBM** programme and conversion of MScIA to **MScASM**.  
Establishment of CIDAM
- 96 Jul Renaming of ME to **MEEM Department**.
- 97 Jan Accreditation of BEME & BEMTE by HKIE for 5 yrs  
Sep Introduction of **BScIEEM** programme. Implementation of **CUS**  
Nov Graduation of the 1<sup>st</sup> PhD student
- 99 Sep Admission of new students from mainland.
- 00 Aug New HoD, new direction in teaching & research

## **Staff Strength (as at 6/9/00)**

### **Academic Staff : 34**

(including 3 Chair Professors, 17 Associate Professors, 11 Assistant Professors, 1 Temporary Lecturer and 2 Temporary Instructors)

Professor (Chair) of Materials Engineering - *Prof. MAI Yiu-Wing*, also Head of Dept.

Professor (Chair) of Mechatronics and Automation - *Prof. TSO S.K.*, also Director of CIDAM

Professor (Chair) of Manufacturing Engineering - *Prof. PATRI K.V.*

### **Research Supporting Staff : 44**

### **Technical Staff : 27**

(including 1 Lab. Manager, 1 Computer Officer, 3 Senior Technicians, 17 Technicians and 5 Artisans.)

### **Administrative Staff : 8**

(including 1 EO, 1 CO I and 6 CO II)

## Teaching and Research Facilities

Total Lab. Area : **2,600 m<sup>2</sup>** approx.

No. of Laboratories : **18**

(including 1 workshop and 4 funded research centres, namely, **CIDAM, RPTC, ACARL, Desktop CIM s/w**)

Equipment values: **over \$120 million** , including  
HMC, VMC, CNC Miller, CNC Lathe, CNC Grinder, EDM, Wire-cut EDM, FMC,  
Laser Machining Centre, CMM, RP Machines, Cutting Force Measurement System  
Power Press, Injection Moulding Machine, Robots, Conveyor Systems,  
Surface and Roundness Measuring Systems, Laser Measurement System  
Atomic Force Microscope, Scanning Electronic Microscope,  
Condition Monitoring System, Universal Dynamic Testing Machine,  
Computer h/w & s/w, CAD/CAM system etc.

## Unique Features, Achievement and New Direction

- Pioneer in the teaching of Mechatronic Engineering, and Engineering Management
- State-of-the-art laboratory facilities
- Student Centred Learning
- Final year student project
- Quality teaching and research, same professor teaching FT and PT students
- Good graduate employment records
- Wide application of computer science and IT in teaching and as tools to manage and control a manufacturing system or an enterprise
- New approach on e-learning and e-manufacturing, extensive use of Internet and Intranet for teaching

## Degree Programmes & Intake Quota

### Undergraduate Level:

Degree Programme	Full-time	Part-time
BEng(H) in Manufacturing Engineering, <b>BEME</b>	60	40
BEng(H) in Mechatronics Engineering, <b>BEMTE</b>	40	40
BSc in Industrial Engineering & Engineering Management, <b>BScIEEM</b>	60	
BSc in Design & Technology, <b>BScDT</b> (a self-financing programme)		40
MEng in Manufacturing Engineering with Business Management, <b>MEMEBM</b> (an extension of BEME)	18	

### Postgraduate Level:

Degree Programme	Part-time
MSc in Engineering Management, <b>MScEM</b>	30
MSc in Automation Systems and Management, <b>MScASM</b>	30

### Research Level (as at 9/9/00):

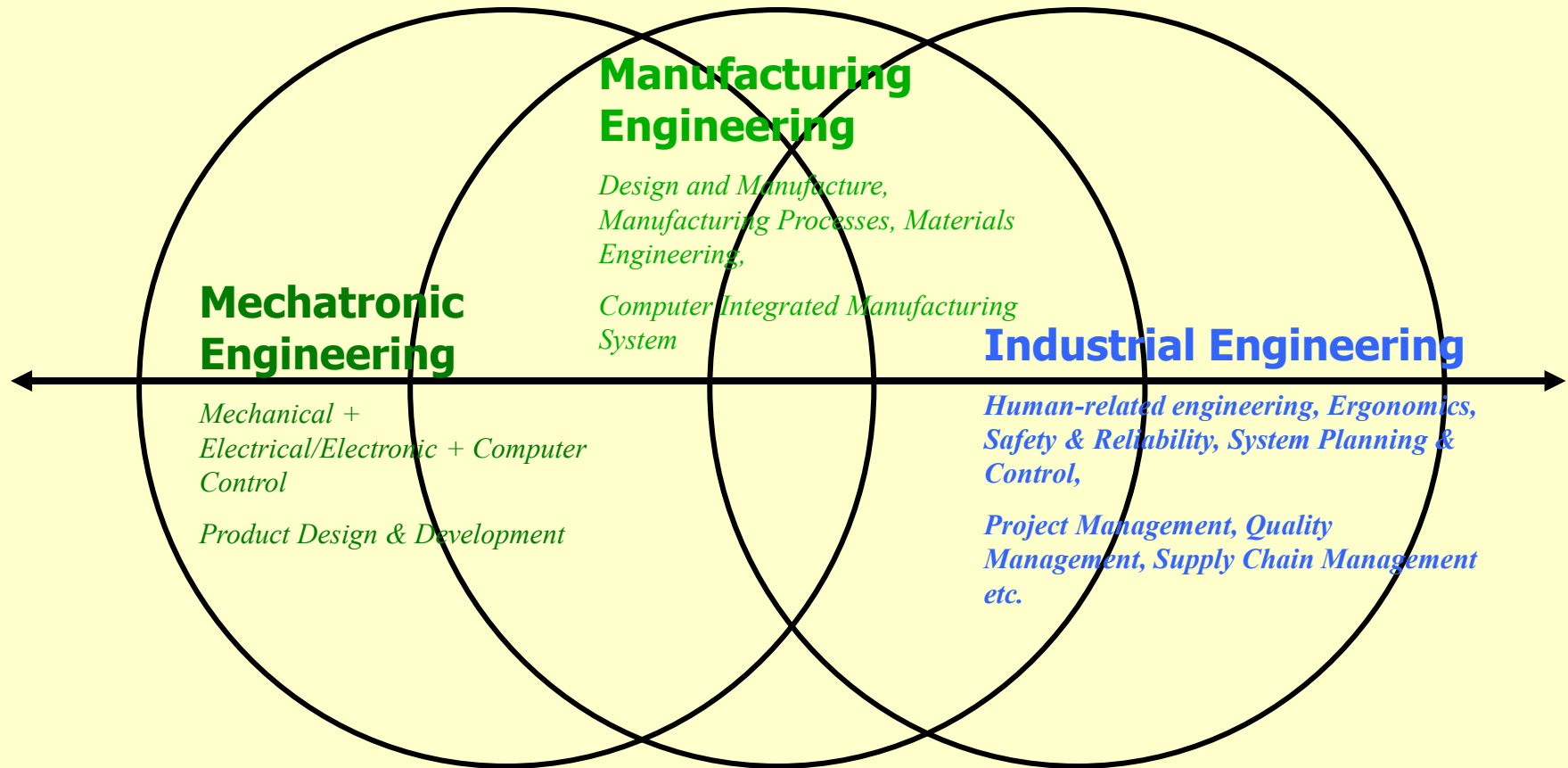
Degree Programme	On-going (Full-time)	On-going (Part-time)	Graduated
MPhil	24	10	29
PhD	15	3	9

## Scholarship, Prize and External Award

Name of Award	Amount (HK\$)
Chen Hsong Industrial Scholarship	9,000~22,500
Chiap Hua Cheng's Foundation Scholarship	9,000
CMA & Donors Scholarship	2,500
Dean's Scholarship	25,000
Dr. R. C. Lee and Esther Yewpick Charitable Foundation Scholarship	600,000 (for PhD research)
Electronic Sales Ltd Scholarship	5,000~6,000
Fitness Concept's Outstanding Sports Scholarship	5,000
HKIE Prizes	500
IEE Manufacturing Engineering Student Prize	1,200
Joyce M. Kuok Foundation Scholarship	20,600~22,600
Li Po Chun Charitable Trust Fund Scholarship	8,700~22,000
Motorola Semiconductors Scholarships	11,680~14,033
<b>Programme Entrance Scholarship</b> <i>offered by FSE, depends on HKALE results, based on recommendation from school principals, subject to programme-specific criteria, to be interviewed.</i>	<b>10,000~20,000</b>
Shell Outward Bound Scholarship	10,350
Simatelex Charitable Foundation Scholarship	10,000
Sir Edward Youde Memorial Fellowship Scholarship	10,000~35,000
Sylva Semiconductor Scholarship	3,500
<b>Student Exchange Fund</b>	<b>1,5000 max.</b>
Taipei Trade Centre Scholarship	16,666



# Distinct Features of the 3 Engineering Degree Programmes



# Structural Changes of Hong Kong's Economy and Industry

- \* Finance & Service Centre
- \* Manufacturing creates wealth and generates growth
- \* Expansion in volume of production
- \* From shop-floor production to
  - product design management,
  - project management, logistic,
  - system planning and scheduling,
  - supply chain management,
  - marketing, warehousing, transportation etc.
- \* From digital factory to **e-manufacturing**, service-enhanced manufacturing

# Graduate Employment Survey

(within the 1<sup>st</sup> 6 months after final examination)

## **BEng (Hons) in Manufacturing Engineering**

Yr of Graduation	Mean starting salary (\$)	Min. starting salary (\$)	Max. starting salary (\$)	No. of graduates	Employed + under-employed	Un-employed	Further studies	Not seeking employment
1992	7,577	4,200	9,300	66	64 (97.0%)	1 (1.5%)	1 (1.5%)	
1993	8,407	6,500	13,000	68	60 (93.8%)	1 (1.5%)	3 (4.7%)	
1994	9,423	7,500	27,000	70	62 (90.0%)	1 (1.4%)	5 (7.2%)	1 (1.4%)
1995	9,696	5,000	14,000	89	79 (89.9%)	3 (3.4%)	4 (4.5%)	2 (2.2%)
1996	10,029	5,000	27,245	50	44 (88.0%)	3 (6.0%)	1 (2.0%)	2 (4.0%)
1997	10,542	8,000	13,000	72	56 (81.2%)	8 (11.5%)	5 (7.2%)	
1998	10,584	7,500	30,000	79	64 (84.2%)	8 (10.5%)	4 (5.3%)	
1999	9,299	6,000	18,190	101	79 (84.9%)	11(11.8%)	2 (2.2%)	1 (1.1%)
2000								

## **BEng (Hons) in Mechatronic Engineering**

Yr of Graduation	Mean starting salary (\$)	Min. starting salary (\$)	Max. starting salary (\$)	No. of graduates	Employed	Un-employed	Further studies	Not seeking employment
1995	10,281	8,500	14,000	33	27 (81.8%)	2 (6.1%)	4(12.1%)	
1996	10,587	8,000	18,000	35	31 (91.2%)		3 (8.8%)	
1997	11,309	9,000	18,000	41*	34 (82.9%)	2 (4.9%)	4 (9.8%)	1 (2.4%)
1998	9,768	7,500	18,965	39	24 (64.9%)	6 (16.2%)	7(18.9%)	
1999	9,745	5,000	17,460	34	28 (82.4%)	2 (5.9%)	4(11.8%)	
2000								

Note: \* two graduates are employed by KMY Instruments Inc. at San Jose, CA 95131, USA

# Admission Results

## BEng (Hons) in Manufacturing Engineering (JUPAS:1602)

### Full-time

yr	JUPAS										Direct Entry				
	Intake quota	Band A	Band B	Band C	Band D	Band E	Total No. of Applicants	No. Offer-ed	Appli cation to Place Ratio	No. Reg .	Offer-ed Quota	No. of 1 <sup>st</sup> choice	No. of 2 <sup>nd</sup> choice	Applic ation to Place Ratio	No. Reg .
97	60	18 296	6 332	8 396	7 406	8 481	1911	47	<b>40.7:1</b>	46	20	126	141	<b>13.4:1</b>	11
98	53	24 446	15 429	6 453	2 397	1 504	2229	48	<b>46.4:1</b>	48	11	160	147	<b>27.9:1</b>	8
99	53	13 433	22 499	6 542	5 452	528	2454	46	<b>53.3:1</b>	42	20	151	127	<b>13.9:1</b>	7
00	53	26 531	13 507	4 527	2 418	0 514	2497	45	<b>55.5:1</b>	45	17	110	119	<b>13.5:1</b>	6

### Part-time

yr	Intake quota	No. of 1 <sup>st</sup> Choice	No. of 2 <sup>nd</sup> Choice	No. of offers made	Application to Place Ratio	No. Registered
97	40	257	162	55	<b>7.6:1</b>	45
98	40	234	163	37	<b>10.7:1</b>	32
99	30	220	144	41	<b>8.9:1</b>	35
00	30	179	138	39	<b>8.1:1</b>	32

# Admission Results

## BEng (Hons) in Mechatronic Engineering (JUPAS:1614)

### Full-time

yr	JUPAS										Direct Entry				
	Intake quota	Band A	Band B	Band C	Band D	Band E	Total No. of Applicants	No. Offer-ed	Appli cation to Place Ratio	No. Reg.	Offer-ed quota	No. of 1 <sup>st</sup> choice	No. of 2 <sup>nd</sup> choice	Appli cation to Place Ratio	No. Reg.
97	39	12 132	6 270	10 343	5 323	2 326	1394	35	<b>39.8:1</b>	32	7	71	73	<b>20.6:1</b>	6
98	40	17 214	12 281	5 359	2 304	0 340	1498	36	<b>41.6:1</b>	36	9	102	104	<b>22.9:1</b>	7
99	40	16 235	14 374	3 437	1 362	1 412	1820	35	<b>52.0:1</b>	34	11	105	80	<b>16.8:1</b>	6
00	40	23 342	7 423	1 467	0 367	0 408	2007	31	<b>64.7:1</b>	31	18	67	43	<b>6.1:1</b>	7

### Part-time

yr	Intake quota	No. of 1 <sup>st</sup> Choice	No. of 2 <sup>nd</sup> Choice	No. of offers made	Application to Place Ratio	No. Registered
97	40	176	243	55	<b>7.6:1</b>	42
98	40	227	197	43	<b>9.9:1</b>	31
99	30	174	190	46	<b>7.9:1</b>	37
00	30	137	177	40	<b>7.9:1</b>	31

## Admission Results

### BSc in Industrial Engineering & Engineering Management (JUPAS:1652)

#### Full-time

yr	JUPAS										Direct Entry				
	Intake quota	Band A	Band B	Band C	Band D	Band E	Total No. of Applicants	No. Offer-ed	Appli-cation to Place Ratio	No. Reg .	Offer-ed Quota	No. of 1 <sup>st</sup> choice	No. of 2 <sup>nd</sup> choice	Applic-ation to Place Ratio	No. Reg .
97	60	16 165	14 265	9 385	6 346	3 409	1570	48	<b>32.7:1</b>	48	16	134	179	<b>19.6:1</b>	9
98	52	16 207	11 285	12 519	4 464	4 476	1951	47	<b>41.5:1</b>	47	14	126	126	<b>18.0:1</b>	5
99	52	17 260	21 432	5 600	2 506	4 540	2338	45	<b>47.7:1</b>	45	13	108	99	<b>15.9:1</b>	7
00	52	16 382	13 534	4 644	4 522	1 542	2624	38	<b>69.1:1</b>	38	18	85	64	<b>8.3:1</b>	13

# Science

*discovery*

*in pursuit of systematic and formulated knowledge*

# Engineering

*application of knowledge*

*creation, design, application and integration of technology*

*problems solving, system building*

# **Engineers are Professional**

*A professional engineer is a properly educated and trained specialist possessing qualifications recognized by national and international professional bodies, and by Governments*

*Professional engineers need to top up knowledge continuously*

***The Hong Kong Institution of Engineers (HKIE) and the Engineers Registration Board govern and improve engineering standards***

***BEME and BEMTE programmes are fully accredited by the HKIE***



## Route to become a corporate member of the HKIE\*\* (MHKIE) and a registered professional engineer (RPE)\* of Hong Kong

3 years of study in a recognised engineering degree programme

+

2 years of formalised postgraduate training

+

a minimum of 2 years of responsible experience.

Then qualified to apply for professional assessment for corporate membership.

\*\* Hong Kong is one of the eight signatories of the *Washington Accord*

\* A Bill entitled *“Engineers Registration Ordinance 1990”* was passed by the LEGCO on 2/5/90.

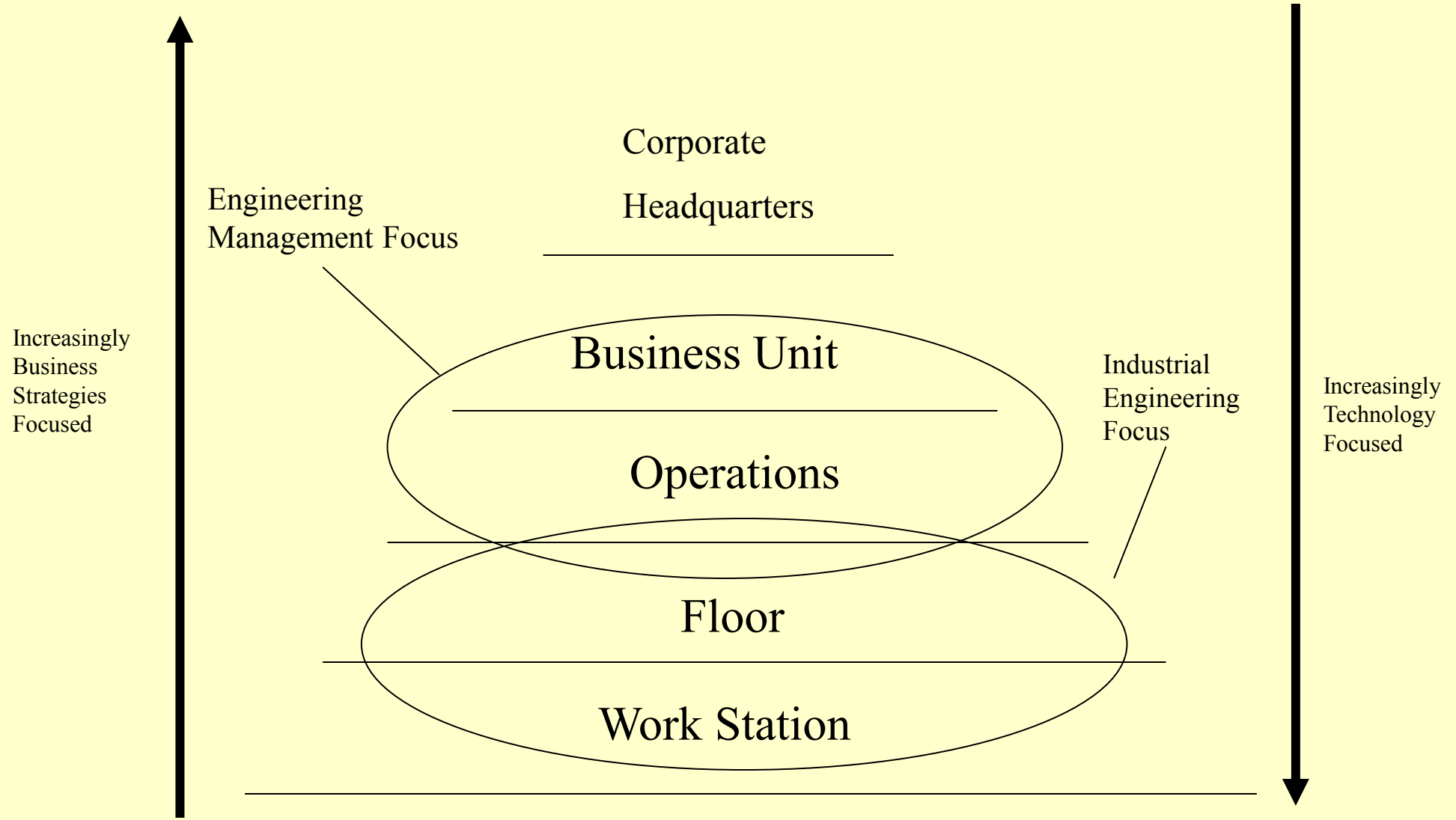


BSc (Hons) in Industrial Engineering and Engineering  
Management (BScIEEM) *JUPAS CODE: 1652*

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*What is IEEM ?*

**IEEM works on**  
**continuous improvements**  
**of an**  
**Integrated systems**  
**of Men, Materials and Equipment,**  
**using scientific methods of**  
**management and technology**



# Integration Block

Industrial  
Engineering  
Block

Engineering  
Management  
Block

# Technology Block

# Foundation Block

# BSc (Hons) in Industrial Engineering and Engineering Management (BScIEEM) *JUPAS CODE: 1652*

## **What to learn ?**

### Technologies :

Advanced Product Development Technologies, Computer Integrated Manufacturing, Automation ...

### Industrial Engineering :

Work Design, Ergonomics, Operations Planning and Control, Industrial Information System, Occupational Safety, Reliability Engineering ...

### Engineering Management :

Project Management, Quality Management, Maintenance Management, Supply Chain Management ...

## BSc (Hons) in Industrial Engineering and Engineering Management (BScIEEM) JUPAS CODE: 1652

### **Career Prospects:**

With the ever expanding engineering industry in Asia, graduates of this programme will find ample job opportunities. Graduates can work as engineers in engineering and servicing sectors. Typical job titles include:-

*Industrial Engineer*  
*Project Engineer*  
*Production Planner*  
*Material Controller*  
*IT Engineer*  
*Quality Engineer*  
*Management Trainee ...*

# BSc (Hons) in Industrial Engineering and Engineering Management (BScIEEM) JUPAS CODE: 1652

## *Examples of Increasing Needs for IEEM Graduates*

Supply Chain Design - developing technologies (concepts, methodologies and algorithms) that optimize material sourcing, distribution networks, facility location/operation and inventories

Management Systems – developing various management systems, e.g. ISO 9000- Quality Management System, ISO 14000- Environmental Management System.

E-Commerce Logistics - developing technologies that support physical logistics processes related to electronic commerce and the Internet