ELECTRONICS INDUSTRY

2012 MANPOWER SURVEY

STATISTICAL REPORT

ELECTRONICS AND TELECOMMUNICATIONS TRAINING BOARD

VOCATIONAL TRAINING COUNCIL

Contents

I.   INTRODUCTION

The Training Board

1.1   The Electronics and Telecommunications Training Board of the Vocational Training Council (VTC) is a statutory body appointed by the Government of the Hong Kong Special Administration Region (HKSAR) to be responsible for matters pertaining to manpower training in the electronics industry.   The Training Board comprises members nominated by major trade associations, professional bodies, workers unions, training and educational institutions, as well as representatives from government departments.   The membership and terms of reference of the Training Board are given in Annexes A and B respectively.

1.2   The Training Board is required by its terms of reference to determine the manpower needs of the electronics industry and to recommend to the VTC the development of vocational education and training facilities to meet such needs.

The Manpower Survey

1.3   The Training Board conducted a survey in April 2012 to collect up-to-date information on the manpower situation of the electronics industry.   The survey was conducted with the assistance of the Census and Statistics Department of the HKSAR Government.   Follow-up of the fieldwork finished in November and data processing was completed in January 2013.

1.4   The following manpower statistics and information were collected from the survey:

    (i)   number of employees in various principal jobs at the time of the survey;

    (ii)   number of existing vacancies;

    (iii) number of trainees;

    (iv)   employers' forecast of the total number of employees by April 2013;

    (v)   average monthly income of employees; and

    (vi)   employers' views on the preferred education, training mode and training period of employees.

1.5　　　　Employers were also requested to provide other information such as the number of technologists, technicians and craftsmen who had been promoted in the past 12 months, and also those who had been deployed to work for more than 6 months outside Hong Kong during the 12 months prior to the survey, as well as the skills their needed to enhance.

Scope of Survey

1.6　　　　The survey covered firms, relevant departments in the government and educational institutions in the following six sectors of the industry:

Sector 1: Manufacturing

Manufacturers of :

(a) Computers and peripheral equipment (HSICs 262000, 281700, 952100);

(b) Audio and video equipment (HSICs 264000, 953100);

(c) Communications equipment and cables (HSICs 263000, 273100, 952200);

(d) Magnetic and optical media, and reproduction of recorded media (HSICs 182000, 268000);

(e) Electronic parts and components for computer and telecommunication equipment (HSIC 261100);

(f) Electronic parts and components not elsewhere classified (HSIC 261900);

(g) Electronic games and toys (HSIC 324500); and

(h) Electronic industrial apparatus, and measuring testing, navigating and control equipment (HSICs 265100, 331300).

Sector 2: Trading and Services

Establishments of :

(a) Anti-burglar system, intercommunication system, telecommunications equipment and, installation and maintenance (HSICs 432104, 432105, **432106^**);

(b) Imports and exports of:

(i) Scientific and professional instruments and apparatus (HSICs 451631, 452631)*;

(ii) Telecommunications equipment and parts (HSICs 451611, 452611)*;

(iii) Electrical goods (HSICs 451452, 452452)*;

(iv) Computers and computer peripherals and computer software (HSICs 451601, 451602, 452601, 452602)*;

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(v)   Office appliances and equipment (HSICs 451634, 452634)*;

(vi)   Electronic parts (HSICs **451613, 452613^**)*

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(c)   Data processing, hosting and related activities (HSICs 620101, 620199, 620200, 620900, 631100)*; and

(d)   Other electronics engineering services not included in (a) to (c).
(Appendix A)

Sector 3: Telecommunication Services

Establishments of :

(a)   Telecommunications network operation services (HSIC 611000);

(b)   Other miscellaneous telecommunications activities nowhere else classified (HSIC 619900);

(c)   Internet access services (HSIC 619100); and

(d)   Radio broadcasting, motion picture, video and television programming, and broadcasting activities (HSICs 591100, 601000, 602000).

Sector 4: Wholesale

Establishments of wholesale of :

(a)   Telecommunications equipment and parts (HSIC 460611);

(b)   Electrical goods (excluding machinery, office and telecommunications equipment and appliances) (HSIC 460452);

(c)   Computers and computer peripheral equipment (HSICs 460601, 460602); and

(d)   Office machines, appliances and equipment (excluding computer, furniture and fixtures) (HSIC 460634).

Sector 5: Design houses and Relevant Departments in Universities and the Government

(a)   Electronics design houses;

(b)   Relevant educational institutions; and

(b)   Relevant government departments.

Sector 6: Retail Shops for Electronics Products (9 large shops)

Notes: *(1)*   *HSIC denotes Hong Kong Standard Industrial Classification*

       (2)   ** Excluding those establishments with an employment size below 10 as they are unlikely to have a significant number of technical staff.*

       (3)   *^HSICs 432106, 451613 and 452613 are newly added.*

1.7　　　　Prior to the survey, the Census and Statistics Department recorded some 7 364 establishments in the above six sectors of the electronics industry in Hong Kong.　In view of the limited resources available, a stratified random sampling method was adopted and a total of 697 samples were selected to be surveyed.　The data collected were then processed and scaled up statistically to give an overall picture of the manpower situation of the industry.

Method of the Survey

1.8　　　　Two weeks before the survey, relevant survey documents including questionnaire (Annex D), explanatory notes (Annex E) and list of principal jobs (Annex F) were mailed to the 697 establishments.　Prior publicity was also given through the local press and relevant trade and industrial organizations to solicit employers' co-operation in the survey.

1.9　　　　During the survey period, interviewing officers of the Census and Statistics Department visited all 697 establishments to collect the completed questionnaires and, where required, to assist employers in completing them.　All returned questionnaires were scrutinized and where necessary, cross checked with the respondents.

Response to the Survey

1.10　　　Of the 697 establishments, 402 completed the questionnaires and 38 refused to supply information.　The remaining 257 establishments had either moved, closed and could not be traced, or no longer engaged in the trade.　The effective response rate was 90.5%.

1.11　　　During the survey, some of the establishments just provided the rough manpower information and did not give details of their employees' monthly income, number of trainees or number of vacancies at the date of survey.　The reasons were that they were too busy and not willing to provide confidential information of their organizations.

The Report

1.12　　　After follow-up of the fieldwork and data processing, the Training Board compiled in February 2013 a statistical report which presented the main manpower data collected from the survey.　The statistical report was subsequently mounted onto the VTC website for public information.

1.13　　　This report presents all the findings of the survey together with the Training Board's forecast of the training needs of the industry and recommendations on measures to meet these needs.　In the report, the terms "employees", "workers" and "manpower" refer to the total number of persons employed in the principal jobs at the time of the survey but excluding trainees and apprentices.　The term "trainees" means all persons receiving any form of training including those registered apprentices under a contract of apprenticeship.

II. SUMMARY OF SURVEY FINDINGS

Number of Persons Employed

2.1   The survey revealed that in April 2012, a total of 135 972 persons were employed in the electronics industry in Hong Kong.   Of them, 58 631 were engaged in the principal jobs of electronics engineering and related disciplines.   The following paragraphs present only the manpower statistics of those employees employed in the principal jobs.

Distribution of Employees by Job Level and by Sector

2.2   The distribution of employees by job level and by sector of the electronics industry is shown in Table 2.1, Figure 2.1 and Figure 2.2.

Table 2.1 : Distribution of Employees by Job Level and by Sector

Sector	Job Level				Total
	Technologist	Technician	Craftsman	Operative	
1. Manufacturing	956	2 432	551	2 113	**6 052**
2. Trading and Services	7 621	21 824	3 814	1 454	**34 713**
3. Telecommunications Services	2 200	4 337	609	133	**7 279**
4. Wholesale	293	3 202	274	108	**3 877**
5. Design Houses and Relevant Departments in Universities and Government	904	2 333	962	95	**4 294**
6. Retail Shops for Electronics Products (9 large shops)	8	2 408	-	-	**2 416**
Total **(Percentage of Total Manpower)**	**11 982** 20.4%	**36 536** 62.3%	**6 210** 10.6%	**3 903** 6.7%	**58 631** 100%

Figure 2.1 :   Distribution of Employees by Job Level

Craftsman
10.6%

Operative
6.7%

Technologist
20.4%

Technician
62.3%
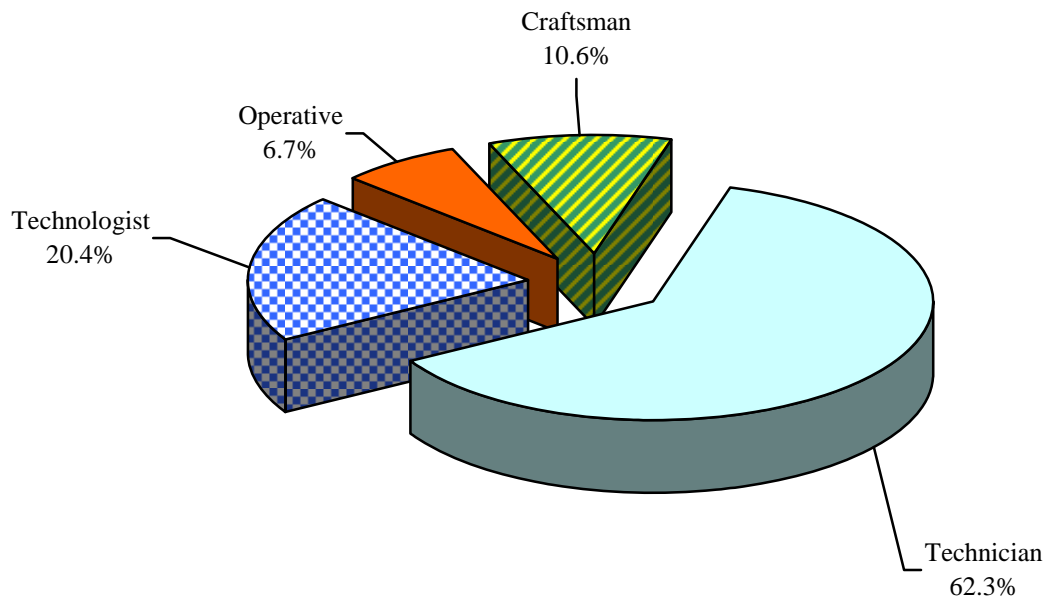
Figure 2.2 :   Distribution of Employees by Job Sector

Trading and Services
59.2%

Telecommunications
Services
12.4%

Wholesale
6.6%

Design Houses and
Relevant
Departments in
Universities and
Government
7.3%

Manufacturing
10.3%

Retail Shops for
Electronics Products
(9 large shops)
4.2%
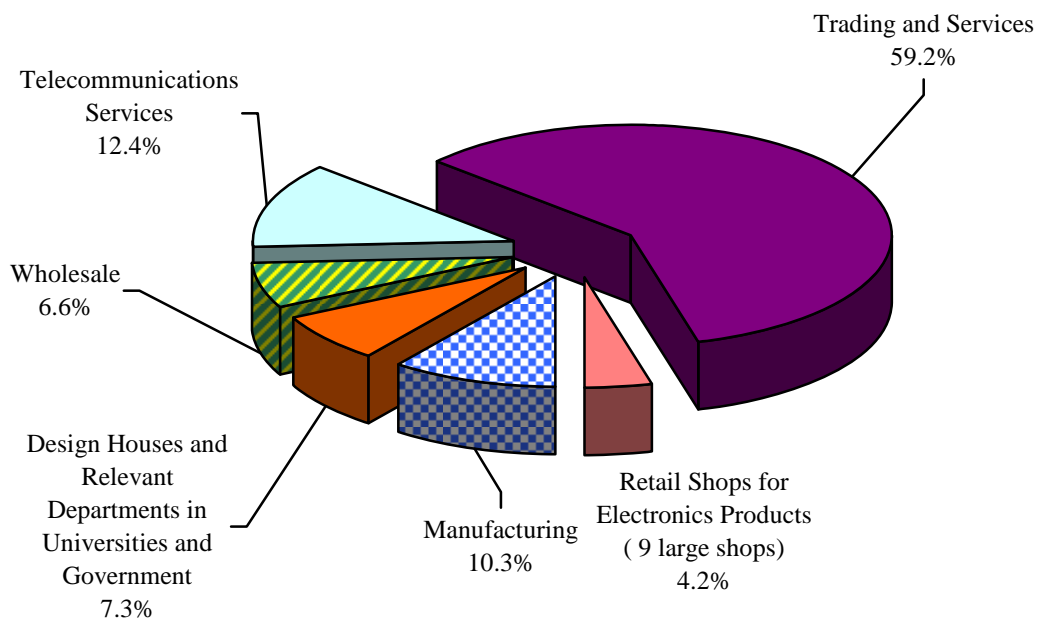
Number of Trainees

2.3   At the time of the survey, there were 799 trainees in the electronics industry. Their distribution by job level is shown in Table 2.2:

Table 2.2 : Distribution of Trainees by Job Level

Job Level	No. of Trainees (a)	No. of Employees (b)	Percentage $\frac{(a)}{(b)}$ x100%
Technologist	106	11 982	0.9%
Technician	334	36 536	0.9%
Craftsman	359	6 210	5.8%
Operative	-	3 903	0%
Total	**799**	**58 631**	**1.4%**

**Number of Vacancies at Time of Survey
and Forecast Manpower by April 2013**

2.4   The total number of job vacancies was 1 431, or 2.44% of the total number employed in the electronics industry at the time of the survey.   Employers also forecast that there would be 60 338 employees in the industry by April 2013, which is 1 707 employees (1.5%) more than that in April 2012.

2.5   A comparison of the manpower requirement at the time of survey and the employers' forecast of the number of employees by April 2013 is shown in Table 2.3 and Figure 2.3:

Table 2.3 : Comparison of Manpower Requirement
by April 2012 and April 2013

Job Level	At Time of Survey (April 2012)			Forecast Total No. of Employees by April 2013	Forecast Increase/Decrease in Manpower Requirement
	No. of Employees	No. of Vacancies	Total Manpower Requirement		
Technologist	11 982	396	12 378	12 715	+2.7%
Technician	36 536	784	37 320	37 351	+0.08%
Craftsman	6 210	174	6 384	6 309	-1.2%
Operative	3 903	77	3 980	3 963	-0.4
Total	**58 631**	**1 431**	**60 062**	**60 338**	**+1.5%**

Figure 2.3 : Comparison of Manpower Requirement
by April 2012 and April 2013

Manpower
Requirement
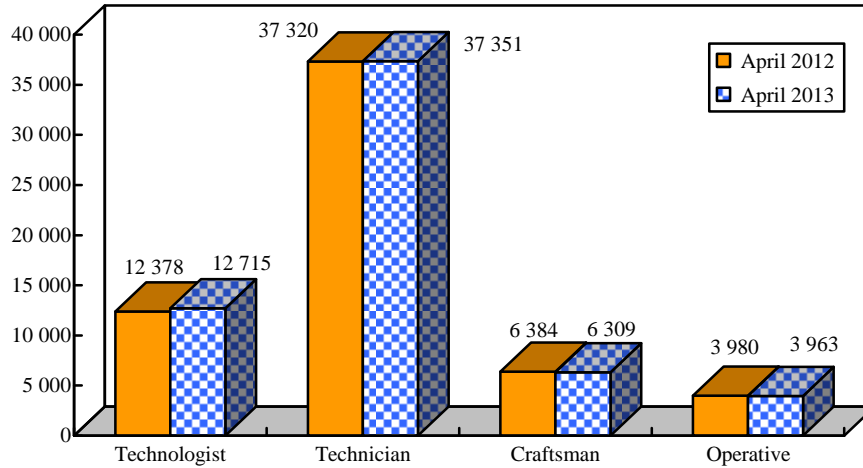
Total Monthly Income Range of Employees

2.6   The distribution of employees by total monthly income range in the electronics industry is shown in Table 2.4 and Figure 2.4:

Table 2.4 :   Distribution of Employees
by Total Monthly Income Range

Job Level	Below $8,001	$8,001-$10,000	$10,001-$15,000	$15,001-$20,000	$20,001-$25,000	$25,001-$30,000	Over $30,000	Un-specified
Technologist	-	-	32	1 142	1 333	3 551	3 711	2 213
Technician	54	627	9 101	11 734	4 704	2 802	1 173	6 341
Craftsman	64	1 024	3 899	427	-	-	-	796
Operative	603	1 866	160	-	154	-	-	1 120
Total	**721**	**3 517**	**13 192**	**13 303**	**6 191**	**6 353**	**4 884**	**10 470**

Figure 2.4 :　Distribution of Employees
by Total Monthly Income Range

No. of
Employees
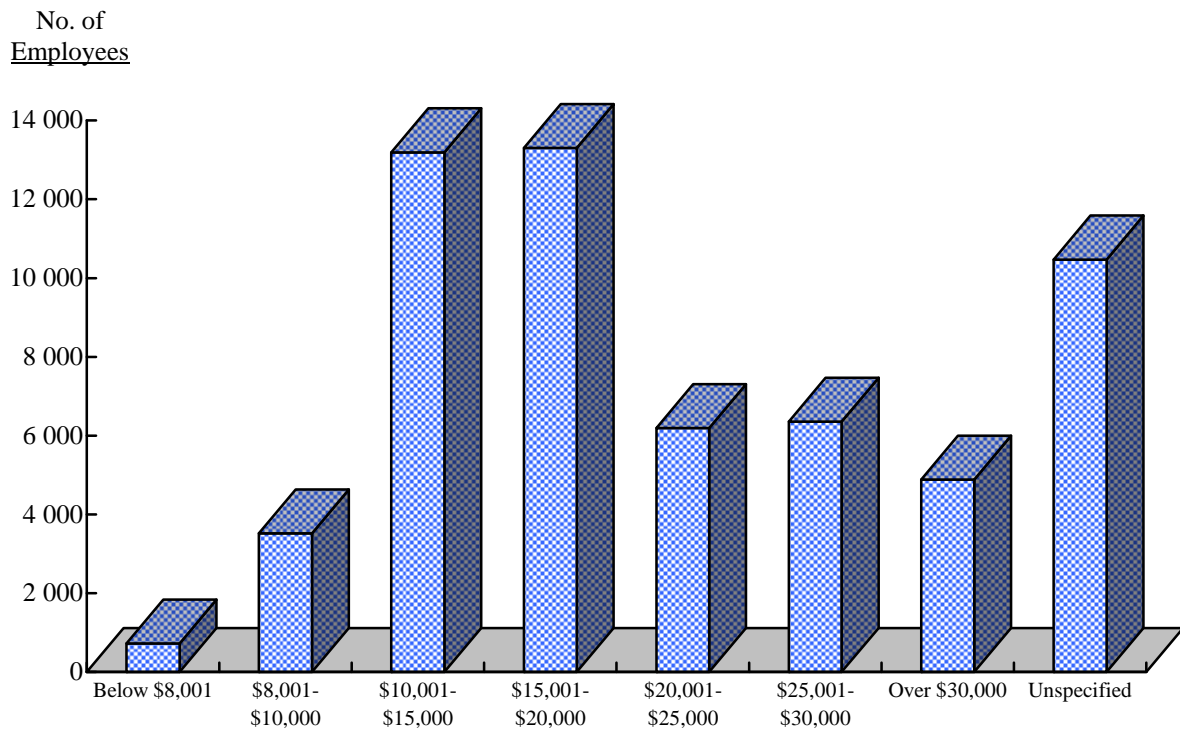
**Preferred Education, Mode of Training and
Period of Training of Employees**

2.7　　　The majority views of employers on the preferred education, mode of training and period of training of their technologists, technicians and craftsmen are shown in Table 2.5:

Table 2.5 :　Preferred Education, Mode of Training and
Period of Training of Employees

Job Level	Preferred Education	Preferred Mode of Training	Preferred Period of Training
Technologist	Degree/ Associateship or equivalent	On-the-job Training	3 – 4 years
Technician	Certificate	On-the-job Training	2 – 3 years
Craftsman	Craft Certificate	On-the-job Training	2 – 3 years

Internal Promotion

2.8   In the twelve months prior to the survey, a total of 451 employees were promoted to higher level jobs in their own companies.   Their distributions in each job level are shown below:

Table 2.6 :   Internal Promotion

Internal Promotion	No. of Employees Promoted (a)	Total No. of Employees at the Promoted Level (b)	Percentage $\frac{(a)}{(b)}$ x100%
From Technician to Technologist	133	11 982	1.1%
From Craftsman to Technician	235	36 536	0.6%
From Other Levels to Craftsman	1	6 210	0.02%
Total	**369**	**54 728**	**0.7%**

Employees Deployed to Work Outside Hong Kong

2.9   Employers reported the following number of employees who had been deployed to work outside Hong Kong more than 6 months during the 12 months prior to the survey:

Table 2.7 :   No. of Employees Deployed to Work Outside Hong Kong

Job Level	No. of Employees Deployed to Work Outside Hong Kong (a)	Total No. of Employees at Same Job Level (b)	Percentage $\frac{(a)}{(b)}$ x100%
Technologist	633	11 982	5.3%
Technician	535	36 536	1.5%
Craftsman	1	6 210	0.02%
Total	**1 169**	**54 728**	**2.1%**

Skills Employees Need to Enhance

2.10   The three most important skills that employees need to enhance are shown in Table 2.8:

Table 2.8 : No. of Employees by Skills Need to Enhance

| Job Level | The 3 most important skills that employees need to enhance | | | |
	Order	Code	Skills/ Knowledge/ Attributes	No. of Employees
Technologist	1.	103	Project management	2 417
	2.	401	Problem solving	2 366
	3.	107	Leadership skills	2 270
Technician	1.	404	Communication skills	10 611
	2.	401	Problem solving	9 499
	3.	411	Customer services skills	9 320
Craftsman	1.	401	Problem solving	1 871
	2.	404	Communication skills	1 855
	3.	411	Customer services skills	1 842

Statistical Tables

2.11   Detailed manpower statistics analysed by principal job and by sector of the electronics industry are shown in Appendices 1 to 7.   The distribution of employers by their monthly income range is shown in Appendix 8 and the number of employees by skills need to enhance is shown in Appendix 9.

MANPOWER STATISTICS OF THE ELECTRONICS INDUSTRY
電子業人力統計數字
Sector 1: Manufacturing (門類一：製造)

Job Title 職稱	Number of Workers Employed 僱員人數	Number of Trainees 受訓者人數	Number of Vacancies at Date of Survey 調查期間 空缺數目	Forecast of Total Workers by April 2013 預測至 2013 年 4 月時的僱員總數
TECHNOLOGIST LEVEL 技師級				
Electronics Engineer 電子工程師	455	9	21	474
Electrical Engineer 電機工程師	2	-	-	2
Mechanical Engineer 機械工程師	107	9	7	87
Manufacturing/Quality Assurance Engineer 製造／品質保證工程師	333	-	27	358
Chemical Engineer 化學工程師	15	-	-	15
Product/Graphic Designer 產品／平面設計員	16	-	2	18
System Analyst 系統分析員	28	-	-	24
Sub-total 小 計	956	18	57	978
TECHNICIAN LEVEL 技術員級				
Electronics Technician 電子技術員	1315	9	36	1 330
Mechanical Technician 機械技術員	219	-	4	214
Draughtsman 繪圖員	6	-	-	6
Manufacturing/Quality Assurance Technician 製造／品質保證技術員	273	-	3	276
Supervisor/Foreman/Leader 監督／管工／組長	292	-	-	292
Programmer 程序編製員	19	-	-	19
Web Developer/Designer 網站開發員／設計員	-	-	-	-
Sales Technician 推銷技術員	308	-	-	308
Sub-total 小 計	2 432	9	43	2 445
CRAFTSMAN LEVEL 技工級				
Cable Jointer/Wireman 電纜接駁技工／駁線技工	2	-	-	2
Electronics Craftsman 電子技工	405	51	9	459
Electrician 電氣技工	58	-	-	58
Mechanic 技工	86	-	-	86
Sub-total 小 計	551	51	9	605
OPERATIVE LEVEL 操作工級				
Operator 生產線操作工	2 113	-	29	2 138
Sub-total 小 計	2 113	-	29	2 138
GRAND TOTAL 總 計	**6 052**	**78**	**138**	**6 166**

MANPOWER STATISTICS OF THE ELECTRONICS INDUSTRY
電子業人力統計數字
Sector 2: Trading and Services (門類二：貿易及服務)

Job Title 職稱	Number of Workers Employed 僱員人數	Number of Trainees 受訓者人數	Number of Vacancies at Date of Survey 調查期間 空缺數目	Forecast of Total Workers by April 2013 預測至 2013 年 4 月時的僱員總數
TECHNOLOGIST LEVEL 技師級				
Electronics Engineer 電子工程師	4 383	21	95	4 475
Electrical Engineer 電機工程師	448	10	4	452
Mechanical Engineer 機械工程師	746	25	19	765
Manufacturing/Quality Assurance Engineer 製造／品質保證工程師	411	5	13	424
Chemical Engineer 化學工程師	24	-	-	24
Product/Graphic Designer 產品／平面設計員	265	-	1	266
System Analyst 系統分析員	1 344	-	22	1 362
Sub-total 小 計	7 621	61	154	7 768
TECHNICIAN LEVEL 技術員級				
Electronics Technician 電子技術員	6 680	115	276	6 960
Mechanical Technician 機械技術員	885	99	36	931
Draughtsman 繪圖員	183	-	4	185
Manufacturing/Quality Assurance Technician 製造／品質保證技術員	407	-	-	407
Supervisor/Foreman/Leader 監督／管工／組長	1 092	-	16	1 108
Programmer 程序編製員	3 487	-	26	3 516
Web Developer/Designer 網站開發員／設計員	1 127	-	65	1 192
Sales Technician 推銷技術員	7 963	-	135	8 092
Sub-total 小 計	21 824	214	558	22 391
CRAFTSMAN LEVEL 技工級				
Cable Jointer/Wireman 電纜接駁技工／駁線技工	651	-	22	669
Electronics Craftsman 電子技工	2 842	148	108	2 954
Electrician 電氣技工	175	-	10	175
Mechanic 技工	146	4	-	150
Sub-total 小 計	3 814	152	140	3 948
OPERATIVE LEVEL 操作工級				
Operator 生產線操作工	1 454	-	42	1 496
Sub-total 小 計	1 454	-	42	1 496
GRAND TOTAL 總 計	**34 713**	**427**	**894**	**35 603**

MANPOWER STATISTICS OF THE ELECTRONICS INDUSTRY
電子業人力統計數字
Sector 3: Telecommunications Services (門類三：電訊服務)

Job Title 職稱	Number of Workers Employed 僱員人數	Number of Trainees 受訓者人數	Number of Vacancies at Date of Survey 調查期間 空缺數目	Forecast of Total Workers by April 2013 預測至 2013 年 4 月時的僱員總數
TECHNOLOGIST LEVEL 技師級				
Electronics Engineer 電子工程師	1 951	-	115	2 219
Electrical Engineer 電機工程師	42	-	-	44
Mechanical Engineer 機械工程師	8	-	2	10
Manufacturing/Quality Assurance Engineer 製造／品質保證工程師	23	-	-	23
Chemical Engineer 化學工程師	-	-	-	-
Product/Graphic Designer 產品／平面設計員	24	-	-	140
System Analyst 系統分析員	152	-	-	143
Sub-total 小　計	2 200	-	117	2 579
TECHNICIAN LEVEL 技術員級				
Electronics Technician 電子技術員	2 236	-	11	2 257
Mechanical Technician 機械技術員	11	-	-	11
Draughtsman 繪圖員	43	-	1	44
Manufacturing/Quality Assurance Technician 製造／品質保證技術員	3	-	-	3
Supervisor/Foreman/Leader 監督／管工／組長	168	-	-	121
Programmer 程序編製員	246	-	-	221
Web Developer/Designer 網站開發員／設計員	636	-	10	646
Sales Technician 推銷技術員	994	-	-	994
Sub-total 小　計	4 337	-	22	4 297
CRAFTSMAN LEVEL 技工級				
Cable Jointer/Wireman 電纜接駁技工／駁線技工	20	-	-	20
Electronics Craftsman 電子技工	402	-	2	261
Electrician 電氣技工	186	-	-	186
Mechanic 技工	1	-	-	1
Sub-total 小　計	609	-	2	468
OPERATIVE LEVEL 操作工級				
Operator 生產線操作工	133	-	6	133
Sub-total 小　計	133	-	6	133
GRAND TOTAL　總　計	**7 279**	**-**	**147**	**7 477**

MANPOWER STATISTICS OF THE ELECTRONICS INDUSTRY
電子業人力統計數字
Sector 4: Wholesale (門類四：批發)

Job Title 職稱	Number of Workers Employed 僱員人數	Number of Trainees 受訓者人數	Number of Vacancies at Date of Survey 調查期間 空缺數目	Forecast of Total Workers by April 2013 預測至 2013 年 4 月時的僱員總數
TECHNOLOGIST LEVEL　技師級				
Electronics Engineer 電子工程師	227	-	42	369
Electrical Engineer 電機工程師	-	-	-	-
Mechanical Engineer 機械工程師	-	-	-	-
Manufacturing/Quality Assurance Engineer 製造／品質保證工程師	20	-	-	20
Chemical Engineer 化學工程師	-	-	-	-
Product/Graphic Designer 產品／平面設計員	10	-	-	10
System Analyst 系統分析員	36	-	-	36
Sub-total　小　計	293	-	42	435
TECHNICIAN LEVEL　技術員級				
Electronics Technician 電子技術員	872	2	28	902
Mechanical Technician 機械技術員	6	-	-	6
Draughtsman 繪圖員	-	-	-	-
Manufacturing/Quality Assurance Technician 製造／品質保證技術員	-	-	-	-
Supervisor/Foreman/Leader 監督／管工／組長	1	-	-	1
Programmer 程序編製員	98	-	11	109
Web Developer/Designer 網站開發員／設計員	26	-	-	26
Sales Technician 推銷技術員	2 199	-	86	2 285
Sub-total　小　計	3 202	2	125	3 329
CRAFTSMAN LEVEL　技工級				
Cable Jointer/Wireman 電纜接駁技工／駁線技工	25	-	-	25
Electronics Craftsman 電子技工	235	-	22	257
Electrician 電氣技工	14	-	-	14
Mechanic 技工	-	-	-	-
Sub-total　小　計	274	-	22	296
OPERATIVE LEVEL　操作工級				
Operator 生產線操作工	108	-	-	108
Sub-total　小　計	108	-	-	108
GRAND TOTAL　總　計	**3 877**	**2**	**189**	**4 168**

MANPOWER STATISTICS OF THE ELECTRONICS INDUSTRY
電子業人力統計數字
Sector 5: Design Houses, Relevant Departments in Educational Institutions and Government
(門類五：設計公司、教育院校及政府有關部門)

Job Title 職稱	Number of Workers Employed 僱員人數	Number of Trainees 受訓者人數	Number of Vacancies at Date of Survey 調查期間 空缺數目	Forecast of Total Workers by April 2013 預測至 2013 年 4 月時的僱員總數
TECHNOLOGIST LEVEL　　技師級				
Electronics Engineer 電子工程師	564	5	22	592
Electrical Engineer 電機工程師	229	19	-	240
Mechanical Engineer 機械工程師	13	-	-	13
Manufacturing/Quality Assurance Engineer 製造／品質保證工程師	28	-	3	31
Chemical Engineer 化學工程師	12	-	-	12
Product/Graphic Designer 產品／平面設計員	-	-	1	1
System Analyst 系統分析員	58	3	-	58
Sub-total　小　計	904	27	26	947
TECHNICIAN LEVEL　　技術員級				
Electronics Technician 電子技術員	972	18	25	1 024
Mechanical Technician 機械技術員	176	87	-	196
Draughtsman 繪圖員	7	-	-	7
Manufacturing/Quality Assurance Technician 製造／品質保證技術員	20	-	2	22
Supervisor/Foreman/Leader 監督／管工／組長	1 016	-	-	1 073
Programmer 程序編製員	142	-	3	145
Web Developer/Designer 網站開發員／設計員	-	-	-	-
Sales Technician 推銷技術員	-	-	-	-
Sub-total　小　計	2 333	105	30	2 467
CRAFTSMAN LEVEL　　技工級				
Cable Jointer/Wireman 電纜接駁技工／駁線技工	-	-	-	-
Electronics Craftsman 電子技工	196	-	-	191
Electrician 電氣技工	353	78	-	368
Mechanic 技工	413	78	1	433
Sub-total　小　計	962	156	1	992
OPERATIVE LEVEL　　操作工級				
Operator 生產線操作工	95	-	-	88
Sub-total　小　計	95	-	-	88
GRAND TOTAL　總　計	**4 294**	**288**	**57**	**4 494**

MANPOWER STATISTICS OF THE ELECTRONICS INDUSTRY
電子業人力統計數字
Sector 6: Retail Shops for Electronics Products (9 large shops)
(門類六：零售－9間大型電子產品零售公司)

Job Title 職稱	Number of Workers Employed 僱員人數	Number of Trainees 受訓者人數	Number of Vacancies at Date of Survey 調查期間 空缺數目	Forecast of Total Workers by April 2013 預測至 2013 年 4 月時的僱員總數
TECHNOLOGIST LEVEL　　技師級				
Electronics Engineer 電子工程師	6	-	-	6
Electrical Engineer 電機工程師	-	-	-	-
Mechanical Engineer 機械工程師	-	-	-	-
Manufacturing/Quality Assurance Engineer 製造／品質保證工程師	-	-	-	-
Chemical Engineer 化學工程師	-	-	-	-
Product/Graphic Designer 產品／平面設計員	-	-	-	-
System Analyst 系統分析員	2	-	-	2
Sub-total　小　計	8	-	-	8
TECHNICIAN LEVEL　　技術員級				
Electronics Technician 電子技術員	52	4	-	56
Mechanical Technician 機械技術員	-	-	-	-
Draughtsman 繪圖員	-	-	-	-
Manufacturing/Quality Assurance Technician 製造／品質保證技術員	-	-	-	-
Supervisor/Foreman/Leader 監督／管工／組長	-	-	-	-
Programmer 程序編製員	-	-	-	-
Web Developer/Designer 網站開發員／設計員	4	-	-	4
Sales Technician 推銷技術員	2 352	-	6	2 362
Sub-total　小　計	2 408	4	6	2 422
CRAFTSMAN LEVEL　　技工級				
Cable Jointer/Wireman 電纜接駁技工／駁線技工	-	-	-	-
Electronics Craftsman 電子技工	-	-	-	-
Electrician 電氣技工	-	-	-	-
Mechanic 技工	-	-	-	-
Sub-total　小　計	-	-	-	-
OPERATIVE LEVEL　　操作工級				
Operator 生產線操作工	-	-	-	-
Sub-total　小　計	-	-	-	-
GRAND TOTAL　總　計	**2 416**	**4**	**6**	**2 430**

MANPOWER STATISTICS OF THE ELECTRONICS INDUSTRY (ALL SECTORS)
電子業人力統計數字（各門類）

Job Title 職稱	Number of Workers Employed 僱員人數	Number of Trainees 受訓者人數	Number of Vacancies at Date of Survey 調查期間 空缺數目	Forecast of Total Workers by April 2013 預測至 2013 年 4 月時的僱員總數
TECHNOLOGIST LEVEL　技師級				
Electronics Engineer 電子工程師	7 586	35	295	8 135
Electrical Engineer 電機工程師	721	29	4	738
Mechanical Engineer 機械工程師	874	34	28	875
Manufacturing/Quality Assurance Engineer 製造／品質保證工程師	815	5	43	856
Chemical Engineer 化學工程師	51	-	-	51
Product/Graphic Designer 產品／平面設計員	315	-	4	435
System Analyst 系統分析員	1 620	3	22	1 625
Sub-total　小　計	11 982	106	396	12 715
TECHNICIAN LEVEL　技術員級				
Electronics Technician 電子技術員	12 127	148	376	12 529
Mechanical Technician 機械技術員	1 297	186	40	1 358
Draughtsman 繪圖員	239	-	5	242
Manufacturing/Quality Assurance Technician 製造／品質保證技術員	703	-	5	708
Supervisor/Foreman/Leader 監督／管工／組長	2 569	-	16	2 595
Programmer 程序編製員	3 992	-	40	4 010
Web Developer/Designer 網站開發員／設計員	1 793	-	75	1 868
Sales Technician 推銷技術員	13 816	-	227	14 041
Sub-total　小　計	36 536	334	784	37 351
CRAFTSMAN LEVEL　技工級				
Cable Jointer/Wireman 電纜接駁技工／駁線技工	698	-	22	716
Electronics Craftsman 電子技工	4 080	199	141	4 122
Electrician 電氣技工	786	78	10	801
Mechanic 技工	646	82	1	670
Sub-total　小　計	6 210	359	174	6 309
OPERATIVE LEVEL　操作工級				
Operator 生產線操作工	3 903	-	77	3 963
Sub-total　小　計	3 903	-	77	3 963
GRAND TOTAL　總　計	**58 631**	**799**	**1 431**	**60 338**

DISTRIBUTION OF EMPLOYEES BY MONTHLY INCOME RANGE (ALL SECTORS)
根據每月總收入幅度的僱員人數分布情況（各門類）

Job Title 職稱	Unspecified 未有說明	Below $8,001 以下	$8,001 - $10,000	$10,001 - $15,000	$15,001 - $20,000	$20,001 - $25,000	$25,001 - $30,000	Over $30,000 以上
TECHNOLOGIST LEVEL　技師級								
Electronics Engineer 電子工程師	1 385	-	-	11	697	848	2 634	2 011
Electrical Engineer 電機工程師	14	-	-	-	8	122	18	559
Mechanical Engineer 機械工程師	85	-	-	-	59	242	50	438
Manufacturing/Quality Assurance Engineer 製造／品質保證工程師	213	-	-	7	164	40	141	250
Chemical Engineer 化學工程師	11	-	-	-	4	6	-	30
Product/Graphic Designer 產品／平面設計員	71	-	-	14	126	30	-	74
System Analyst 系統分析員	434	-	-	-	84	45	708	349
Sub-total 小　計	2 213	-	-	32	1 142	1 333	3 551	3 711
TECHNICIAN LEVEL　技術員級								
Electronics Technician 電子技術員	1 686	46	399	3 173	2 439	3 048	1 161	175
Mechanical Technician 機械技術員	150	8	-	512	365	5	245	12
Draughtsman 繪圖員	134	-	2	27	60	12	-	4
Manufacturing/Quality Assurance Technician 製造／品質保證技術員	258	-	16	363	66	-	-	-
Supervisor/Foreman/Leader 監督／管工／組長	271	-	-	171	1 249	158	719	1
Programmer 程序編製員	536	-	-	235	2 219	507	175	320
Web Developer/Designer 網站開發員／設計員	642	-	-	401	710	32	8	-
Sales Technician 推銷技術員	2 664	-	210	4 219	4 626	942	494	661
Sub-total 小　計	6 341	54	627	9 101	11 734	4 704	2 802	1 173
CRAFTSMAN LEVEL　技工級								
Cable Jointer/Wireman 電纜接駁技工／駁線技工	242	-	190	264	2	-	-	-
Electronics Craftsman 電子技工	490	64	738	2 594	194	-	-	-
Electrician 電氣技工	24	-	91	558	113	-	-	-
Mechanic 技工	40	-	5	483	118	-	-	-
Sub-total 小　計	796	64	1 024	3 899	427	-	-	-
OPERATIVE LEVEL　操作工級								
Operator 生產線操作工	1 120	603	1 866	160	-	154	-	-
Sub-total 小　計	1 120	603	1 866	160	-	154	-	-
GRAND TOTAL 總　計	**10 470**	**721**	**3 517**	**13 192**	**13 303**	**6 191**	**6 353**	**4 884**

SKILLS EMPLOYEES NEED TO ENHANCE
僱員需要加強培訓的技能

Skills 技能	No. of Employees 僱員人數			
	Technologist 技師	Technician 技術員	Craftsman 技工	All 總數
Management Skills　　管理技能				
101 Production and engineering management 工業生產及工程管理	1 453	128	-	1 581
102 Marketing management 經銷管理	150	884	-	1 034
103 Project management 項目管理	2 417	380	-	2 797
104 Quality management 品質管理	1 903	575	10	2 488
105 Purchasing management 採購管理	12	6	-	18
106 People management 人事管理	981	139	-	1 120
107 Leadership skills 領導能力	2 270	846	-	3 116
China-related Knowledge and World Vision　　有關中國的知識及世界視野				
201 Social and economic development in China 在中國內地的社會和經濟發展	-	552	-	552
202 Laws and regulatory restrictions to China 進入中國市場的法律和規條限制	34	22	-	56
203 Trade practices in the mainland of China 在中國內地的營商常規	200	100	-	300
204 Cross-cultural knowledge 跨文化的知識	12	-	-	12
205 World vision 世界視野	215	27	-	242
Language Skills　　語文能力				
301 Spoken English 英語會話	110	1 407	165	1 682
302 Written English 英文書寫能力	477	2 354	61	2 892
303 Putonghua 普通話	245	2 287	140	2 672
304 Written Chinese 中文書寫能力	-	8	146	154
Interpersonal and Intrapersonal Skills for the Workplace　　工作間的人際及個人才能				
401 Problem solving 解決問題	2 366	9 499	1 871	13 736
402 Creativity 創意力	614	2 700	74	3 388
403 Critical thinking 批判思考能力	146	868	21	1 035
404 Communication skills 溝通技巧	1 056	10 611	1 855	13 522
405 Team building 團隊建立	988	6 737	1 444	9 169
406 Time management skills 時間管理技巧	856	1 725	86	2 667
407 Optimism/Positive 樂觀/積極	112	3 365	327	3 804
408 Self-esteem 自尊	-	-	74	74
409 Perseverance 毅力	-	2 162	516	2 678
410 Change management skills 變革管理技巧	272	589	-	861
411 Customer services skills 客戶服務技巧	599	9 320	1 842	11 761
412 Numerical skills 數學運用技巧	-	4	-	4
413 Ability to learn/adapt new skills/knowledge 學習或適應新科技、新知識的能力	1 292	7 525	864	9 681
Others　　其他				
699 Others	221	975	367	1 563