







AUTOMATION VALUE CHAIN DIRECTORY

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FOREWORD

Productivity plays an important role in determining the level of economic advancement, which translates into the well-being of the people. To achieve higher productivity levels, companies need to commit to and invest in continuous improvement, especially in automation and digitalisation in order to remain competitive.

As one of the three main catalytic subsectors in manufacturing with strong linkages to other manufacturing subsectors, Machinery and Equipment (M&E) has always been one of the key contributors to the country's development and economy, contributing at an average of RM40 billion annually to the GDP for the last few years.



At the Malaysia Productivity Corporation (MPC), we believe strongly in the capabilities and potential of our homegrown M&E companies to be world-class and are working hard to support the automation-related industries to improve their productivity through process, technology, and talent.

The Buy Malaysian Products campaign is the best platform for local companies to develop and help promote Malaysian-made products and services in the M&E sector. However, until now there has been no centralised database of Malaysian manufacturers and service providers who offer world-class products and services.

I would like to record my appreciation to the working team from the Machinery and Equipment Productivity Nexus (MEPN) of the MPC and the Malaysia Automation Technology Association (MATA), who developed this directory for Malaysian automation and technology providers. This directory will provide an overview of the availability of local technology and also the capabilities of our local players.

I am pleased to present to you this Directory, which will not only be an invaluable form of support for local M&E companies to open up opportunities based on the domestic demand for high-quality work from both the public and private sectors, but also create opportunities for local companies, as well as MNCs, to expand and grow internationally.

Thank you.

YBhg. Dato' Abdul Latif Hj. Abu Seman, Director General, Malaysia Productivity Corporation (MPC)



FOREWORD

The current pandemic has clearly shown that Malaysian companies can no longer operate in the old ways. Throughout the world, businesses and industries are adapting to remain competitive in the highly uncertain and volatile New Normal. As pandemic conditions are expected to last for at least another 12 to 18 months, there is no returning to the Old Normal anymore.

As such, the time is ripe for Malaysian companies to boost productivity levels and reduce reliance on unskilled labour by embracing automation and digitalisation in their operations. Businesses can leverage tax relief and matching grants for investments in mechanisation and automation, as announced in Budget 2021, in making this transition.



This directory will be the definitive reference point for the available automation products and services, and for technology providers in Malaysia. I believe that it will enable successful business matching between demand and supply in the market to encourage productive collaborations between M&E companies and local state-of-the-art technology partners.

I would like to record my appreciation to all the organisations and their team members involved in the production of this directory, namely the Machinery & Equipment Productivity Nexus (MEPN), which provided the funding and is responsible for disseminating the publication; the Malaysia Automation Technology Association (MATA), which helped compile all the relevant information for publication; and the Machinery & Engineering Industries Federation (MEIF), which facilitated engagement with its members on the need to improve their business productivity and cost efficiency through the adoption of various forms of technology, including Industry 4.0.

In conclusion, this directory provides an overview of the availability of technology and also the capabilities of our local players. It is my hope that M&E industry players will make full use of this platform to foster closer networking and collaboration, in order to find the best solutions for both businesses and technology providers that enable them to become more productive and competitive in the global market.

Thank you.

Mr. Mac Ngan Boon Champion, Machinery & Equipment Productivity Nexus (MEPN)



FOREWORD

The Malaysia Automation Technology Association (MATA) is very honoured to collaborate with the Malaysia Productivity Corporation (MPC) in publishing the Automation Value Chain Directory, the first of its kind in Malaysia. This directory is also a showcase for MATA members with respect to their participation in, and contribution to, this value chain, which is further intended to help and serve the wider interests of the Malaysian manufacturing industries.

As Malaysia embarks on her journey to transform into a developed nation, low labour costs might no longer be to our advantage in competing with developing nations across the world. Nor can our manufacturers continue to depend on the supply of low-skilled foreign labour to combat rising labour costs.



Dependency on low-skilled foreign labour has always been a double-edged sword, since the lower cost of labour is weighed against low labour productivity, inconsistent product quality and poor production efficiency. Hence, the Government has introduced great initiatives to encourage our manufacturers to adopt automation as the most direct means of reducing dependency on low-skilled foreign labour.

In the recent budget announcement, one of the initiatives by the Government to ensure business continuity involves tax relief and matching grants for investment in mechanisation and automation. We believe the available schemes allocated for digitalisation and automation will encourage companies to embrace automation and digitalisation in their operations.

We hope the directory provides an overview of the availability of technology and also the capabilities of our local players. We would like to encourage companies who are not yet in MATA to join us, which would enable the growth of the automation industry in Malaysia. The more support we gain, the stronger voice we would have to represent the industry, especially in formulating policy and directives concerning the automation industry in Malaysia.

Before I end, I would like to take this opportunity to express our sincere gratitude and appreciation to the MPC for their support and dedication. The MPC plays an important role in the industry, and makes great efforts to shape the development of the machinery and equipment sub-sector in Malaysia. We wish the engagement with the MATA will continue for the greater interest of the industry players and the economy going forward.

Thank you.

Mr. Tiong Khe Hock President Malaysia Automation Technology Association (MATA)



INTRODUCTION

The Machinery and Equipment (M&E) subsector is an enabler for the economic progress of all other subsectors and it has been of strategic importance throughout the global industrial revolution. It is one of the most innovative economic subsectors as it combines key technologies of the future, such as electronics, robotics and software integration. All in all, the subsector is a key player in IR4.0, as it cuts across all economic segments, especially the primary manufacturing and services sectors.

In Malaysia, the M&E subsector is dominated by locally-owned SMEs who mainly produce goods in small batches (instead of mass production) and provide customised solutions for bigger manufacturers. A large proportion of these SMEs are largely risk-averse and they tend to stick to traditional methods of business management, which does little to contribute to the productivity of the subsector in today's business environment. This needs to be challenged, as more developed nations are becoming increasingly competitive by adopting new technologies and business methods.

SUB SECTOR PERFORMANCE

In terms of trade, this sub-sector continues to register a trade deficit, which amounted to RM28 billion in 2019 compared to RM33.1 billion in 2018. The value of imports exceeded the value of exports, largely contributed by general-purpose machinery, components and parts. Exports have grown steadily in the last few years while imports declined significantly in 2018 and 2019 (Table 1).

Table 1: Machinery and Equipment Subsector Export and Import Value and Growth, 2017-2019

	Ехр	oort	Imp	oort
	RM Mil	Growth (%)	RM Mil	Growth (%)
2017	40,133	7.0	78,575	20.8
2018	40,668	1.3	73,778	-6.1
2019	41,599	2.3	69,638	-5.6

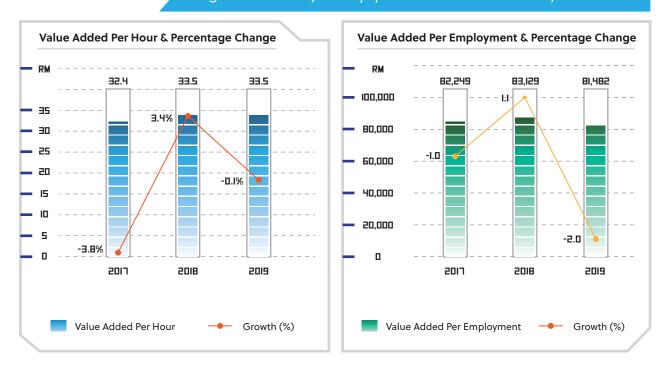
Total Investment increased by 67% in 2019, which amounted to RM3,643 million compared to RM2,188 in 2018. The increase was mainly contributed by a tremendous increase in foreign investment to RM2,841 million in 2019 from RM702 million in 2018. However, local investment witnessed a contraction of 46%.

Table 2: Approved Investment for M&E Subsector (2017- 2020)

Year	No.	Potential Employment	Local Investment (RM Million)	Foreign Investment (RM Million)	Total Investment (RM Million)
2017	77	6,078	1,431.20	755	2,186.00
2018	83	3,578	1,486.34	701.6	2,187.90
2019	99	3,894	801.91	2,841	3,643.00
Source: MID	A				

In 2019, labour productivity for the subsector contracted by 2.0% compared to its growth of 1.1% in 2018. This is the third-lowest out of nine subsectors in terms of value added per employee. The fluctuation growth rates for the past 3 years indicate that the subsector's productivity needs to be strengthened to enable more value-added products with the support of digitalisation and a skilled workforce.

Figure 1: Machinery and Equipment Subsector Productivity Performance

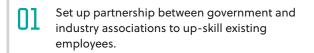


Source: Malaysia Productivity Corporation

MACHINERY AND EQUIPMENT PRODUCTIVITY NEXUS

The need to uplift the subsector's productivity has been emphasised under the Malaysia Productivity Blueprint (MPB), in which three (3) broad challenges, namely workforce, technology and industry structure, have been identified to address the productivity issues at the sectoral level. The MPB initially identified four (4) M&E sectoral initiatives to boost the productivity of large enterprises and SMEs, which led to the establishment of the M&E Productivity Nexus (MEPN).

The MEPN is led by **Mr Mac Ngan Boon, President of the Machinery and Engineering Industries Federation (MEIF).** This nexus aims to address the productivity challenges faced by the Machinery and Equipment sector through the implementation of the following four initiatives:



Set up Centres of Excellence for skilled professionals to share industry expertise and develop new technologies;

- Update domestic product standards to be at par with international standards and enforce compliance; and
- Set up more product testing facilities to ensure standards are met.

The Nexus has set up 4 workgroups to plan, monitor and execute the projects under these 4 initiatives. Leaders and Subject Matter Experts have been appointed in each of the workgroup to advise, recommend and support the champion based on their expertise in projects implementation to expedite the implementation of the 14 outlined projects (Figure 1 and Figure 2).

OVERVIEW OF MALAYSIA

Machinery & Equipment Sub-Sector

Figure 1: The Machinery & Equipment Productivity Nexus is spearheaded by Industry Association to raise the Productivity of the sector





CHAMPION Mr. Mac Ngan Boon

President of Machinery & Engineering Industrial Federation (MEIF)





















WORKGROUP

MACHINERY & EQUIPMENT PRODUCTIVITY NEXUS GOVERNING COMMITEE AND WORKGROUPS





Mr. Tiong Khe Hock Malaysia Automation nology Association (MATA)



SUBJECT MATTER EXPERT Mr. Chan Chee Tatt Machinery & Equipment Manufacturer Assoc. (MEMA)

WORKGROUP 2 Productivity & Efficiency



Mr. Yue Khin Meng Malaysia Special Tooling & Machining Association (MSTMA)



SUBJECT MATTER EXPERT

WORKGROUP 3

SME Empowerment & Development

LEADER
Dato' Michael Kang
SME Association Malaysia
(SMEAM)



SUBJECT MATTER EXPERT



LEADER

Mr. Siew Choon Thye The Electrical & Electroni Association (TEEAM)

WORKGROUP 4

Ecosystem (Policies & Procedure)

SUBJECT MATTER EXPERT N. Sangaran (MEIF)

















Figure 2: MEPN 14 projects for 2019-2020

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WG1

Talent and Manpower

Set up partnership between

government and industry

associations to up-skill

existing employees

WG2

5

6

Productivity and Efficiency

Set up Centre of Excellence for skilled professionals to share industry expertise and develop new technologies

WG3

8

SME Empowerment and Development

Set up more product testing facilities to ensure standards are met

WG4

Ecosystem (Policies & Procedures)

Update of domestic product stands to be at par with international standards and enforce compliance

- University-Industry-Govt-Civil Society partnership for 1 M&E Talent Development Roadmap aligned to Industry 4.0
 - Encourage more industrydriven apprenticeship programmes via the Nexus and recognition for industry champions which deliver
- Upskilling existing employees 3 and trainers through partnership between industry and TVET
- Development of a web-based one-stop-center for M&E Human Capital Development

- Create targeted awareness programmes and leverage on existing MPC productivity tools and Govt grants to improve productivity
- Optimising functions of COEs through effective partnerships
- Industry Association-led efforts to enhance SME capabilities by 7 leveraging on product testing facilities & Industry 4.0 funds. and cluster SME members for joint proposals to export products
 - Development of a comprehensive repository of the M&E supply **chain** to encourage development of end-to-end solutions
- Emphasis on procurement to be based on compliance to 9 export quality standards to elevate Malaysian SMEs capabilities
- Streamlining of targeted 10 processes and regulations on a prioritised basis
- Associate representatives into key Approval 11 committees for Govt incentives to build up agency knowledge and familiarity

Govt to re-include Industry

- Improvement to the SST 12 regime to encourage in-country value-add activities
- Streamlining of import duties 13 to encourage in-country value-add activites
 - M&E companies to be required to be industry association members to qualify for Govt incentives

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OVERVIEW OF MALAYSIA

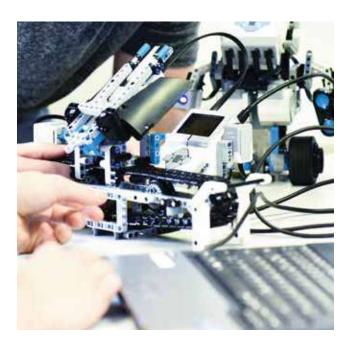
Machinery & Equipment Sub-Sector

NEXUS IN ACTIONS

The Machinery and Equipment Productivity Nexus, through Work Group 1, has initiated networking and inked an MoU with TVET Institutions, namely the Universiti Teknikal Malaysia Melaka (UteM), the German Malaysia Institute (GMI), the Negeri Sembilan Skill Development Centre (NSSDC), the Kedah Industrial Skills and Management Development Centre (KISMEC), the Selangor Human Resource Development Centre (SHRDC) and Institut Latihan Perindustrian Pedas. The MoU aims to establish the MEIF's Strategic Partners who are willing to collaborate with the industry and create programmes that are tailored to the industry's needs in addressing the technical skills gaps among students, existing employees and TVET trainers.

Through this partnership, the MEPN, in collaboration with the HRDF, has established an **Industrial Skills Framework** for the industry. The framework covers 38 job areas and 138 job titles, and provides a common reference for the skills and competencies required in the M&E industry. This framework also will help three groups: it will guide individuals to make the right decisions on skills development, employers to recognise skills and invest in skills training for their employees, and training providers to design programmes that address the sub-sector's manpower and skills needed.

In line with the first initiative, to up-skill existing employees and enhance the implementation of Industry 4.0, the Overall Equipment **Effectiveness (OEE) for Smart Manufacturing** training programme has been designed and introduced to the companies. This six-day training programme was successfully conducted in December 2019 at the Selangor Human Resource Development (SHRDC), and attended by eight M&E companies. The participating companies have been provided with a set of training kits (hardware and gateway) for productivity improvement projects at their respective workplace. Three of the participating companies have shared their success stories via webinar sessions and factory visits.



Based on the results of the environmental scan study among M&E industries in 2018, the M&E industry players do not fully comprehend the scope of productivity. Thus, there is an urgent need to further propagate and drive greater productivity understanding among SMEs. In helping SMEs to enhance operations related to productivity improvement, the MEPN is currently rolling out the **Enterprise Level "Deep Dives"** and Intervention programme, using productivity assessment tools, namely Productivity Gain Measurement (ePGM) and Business Excellence Framework. In 2020, more than 1,000 industry players benefited from the awareness programmes conducted via webinars.

The MEPN has also conducted a Virtual Advisory Clinic, also known as MEVAC, with 43 companies during the MCO and provided recommendation reports to them to assist in mitigating the impact of COVID-19 and to further improve companies' productivity. The one-to-one consultations via an online platform were assisted by eight (8) Industry Productivity Specialists as advisors. MEVAC has identified 123 issues and business concerns, and four programmes have been designed to address these issues. The MEPN has successfully organised a Business Financial Dialogue Session, in collaboration with the SME Bank, the Export-Import Bank of Malaysia (EXIM Bank) and the Credit Guarantee Corporation (CGC), to address the issue of financial problems; it was attended by 64 industry players.

Realising the importance of digitalisation to improve productivity, the MEPN, with the support of the Malaysia Automation Technology Association and the Malaysia Industry 4.0 System Integrator Association (Misi4.0) has developed digitisation modules to help manufacturing companies to strategise their individual digitisation plans and kick-start their digitisation journey. This module encompassed a digitisation self-diagnostic tool and a prioritisation matrix tool. This programme, later known as **PRODUCTIVITY1010**, targeted providing assistance to 1,000 manufacturing companies, with the ultimate output being an Individual Digitisation Blueprint, and with the help of 20 qualified industry experts as mentors; the programme is conducted virtually. To date, 40 companies have enrolled in this programme.

Collaborations between the MEPN and the MEIF, the Malaysian Investment Development Authority (MIDA) and the Standard and Industrial Research Institute of Malaysia (SIRIM) will lead to the establishment of the **Malaysia Machinery Innovation Centre (MMIC)** in the near future. The MEIF is continuously providing feedback on the proposed setting up of the MMIC as a catalyst for the development and adoption of technology by industries.

The MEPN has been compiling a **repository of companies in the M&E and Engineering Supporting Services (ESS)** industries that exhibit the capabilities to grow into the regional or global markets in terms of their future export prospects and sustainability. This will be the first attempt at grooming them to become world-class players that represent Malaysia as the key contributor to the regional hub for high technology, and specialised M&E and Engineering Components production and the related Services Supply Chain.

Regulatory delays in inspections and their associated approval by regulators lead to unnecessary delays and added business costs for M&E companies. The MEPN will need to identify the most significant pain points for priority streamlining in order to achieve better process efficiency for the ease of doing business. Among other industry issues that undergo the **streamlining process through Reduced Unnecessary Regulatory Burdens (RURB)** are sub-standard product importation and local production; the issuance of temporary permits to overseas mobile crane suppliers, which affects the local market; too many safety cards being issued by regulators; and SIRIM's Certificate of Approval (COA) process for steel products. All the issues have been brought to the attention of the higher authorities and stakeholders.

As a voice of industry, MEIF continuously bring forward issues through engagement with MOF, MITI, and agencies to reinstitute Buy Malaysian First policy and Malaysia Brand National Mark. Such effort is expected to stimulate domestic economic growth and help companies to expand marketing network improving the local requests.

CONCLUSION

The M&E Subsector contributes important linkages with all subsectors, including Engineering Support Services (ESS) and Electrical and Electronics; hence, the growth performance of this subsector in addressing productivity challenges will significantly provide spillover effects to other industries as well.

Improving the productivity of the subsector is crucial for the industry to be sustainable in the future as one of Malaysia's GDP contributors. At the global competitive edge, the subsector needs to continue being productive and competitive in order to be one of the industry frontiers, not only locally but also internationally.



Automation is neither a product nor a service. Instead, it is a combination of hardware, software and services into a tightly integrated system. An automation system can be a simple integration of two components. However, it is generally much more complex, involving the integration of several hundred components, and often multiple vendors and supply sources. As such, it is unsurprising that the value chain of the automation industry is long and broad. It is long in the sense that it involves many segments of complementary products and services necessary to ensure the successful implementation of automation projects for the manufacturing communities, including support for their quest towards Industry 4.0 adoption. It is broad because, in each of these segments, there are multiple vendors with alternative products and technologies to choose from.

In this directory, we divide the **Automation Value Chain** into nine (9) broad categories/areas, covering all the products and services within the automation ecosystem. They are:

01	Automation Components/Parts Manufacturers
02	Sub-Assembly Manufacturers
03	Software Developer/Vendors
04	System Integrators
05	System/Machine Builders
06	Panel Builder/Installers (Site Installation/Wiring Contractors)
07	Commissioning/Maintenance Service Providers
08	Training Providers
09	Distributor/Resellers (of Automation Components/System)

The importance of the Automation Value Chain can be seen from the following details, which show the various products and services offered by different categories of vendors.

Automation Components/Parts Manufacturers

This category encompasses automation hardware components and parts, including sensors, transmitters, converters, indicators, controllers, Programmable Logic Controllers (PLC), actuators, motors and drives, wire terminators, instrument calibrators, etc. The number and types of automation components are many and varied, numbering several thousand.

Sub-Assembly Manufacturers

This category represents a level of integration of several basic automation parts, including the possible customisation of hardware, firmware and mounting fixtures, into a more sophisticated component, often to serve a more specific requirement of a particular industry sector. Such products include IIoT (Industrial Internet of Things), Industrial Computers, Weighing systems, Batch Controllers, etc. They are often further integrated into a larger automation system to complete an automation project.

Software Developers/Vendors

This category represents industrial automation software (either general-purpose or customised), offered by local or foreign software development companies, General-purpose software is targeted at serving across multiple industries, and will need further customisation (often by a system integrator) for it to meet the needs of the end customer. Such software includes SCADA (Supervisory Control and Data Acquisition), and MES (Manufacturing Execution System). Customised software is often developed from scratch to meet the specific needs of one or, at most, a very limited number of customers.

∏4 System Integrators

This category represents vendors who offer a mix of hardware, software and services to connect all the required automation components into a fully working system. Such vendors are characterised by their wide range of experience and expertise in automation, mechatronics, software, robotics, motor and drives, etc. These vendors often provide preliminary consultation services to customers to understand their needs and to propose suitable automation solutions as a complete project, including the sourcing of parts, system integration, site installation and commissioning.

System Machine Builders

These companies manufacture complete working machines, ranging from machines for a specific section of a production line, to all machines for an entire production line. They possess strong *industry knowhow* and a wide range of expertise, from manufacturing to fine-tuning of their machines, in order to meet all customer requirements in terms of production speed, product quality, and operational reliability. Their machines are often tested in their factory for the customer's acceptance before delivery.

Panel Builders/installers (Site Installation/Wiring Contractors)

This category represents vendors who offer services to build control panels, including mounting automation components and interconnecting them with suitable wiring to form a working unit. They often offer site installation and site wiring services to connect automation components to and fro the control panels, including signal loop checking.

Commissioning/Maintenance Service Providers

This category represents vendors who offer site commissioning services after an automation system has been installed, to ensure the system is capable of operating as expected. They also offer periodic and on-demand maintenance services on site. These services are generally offered by the same system integrator vendor involved in the project.

Training Providers

These vendors offer automation training, often for all levels of operational personnel, from operators to engineers and managers. They include Industrial Training Institutes and automation system vendors. Automation system vendors are mostly involved in offering training for one or more subjects specific to the brands of the products or systems offered. These courses are also short-term, generally lasting several days. In addition, these vendors normally only offer training certificates of their own which are generally not certified by any recognised third party. On the other hand, Industrial Training Institutes provide certified automation training programmes that are often non-brand specific, and span a much longer period of time, such as two years. Nevertheless, these institutions do offer certified short-term training programmes, often spanning one week or more, which may also be specific to certain well-known brands of automation products or systems.

Distributors/Resellers (of Automation Components/Systems)

This category represents a mix of vendors who act as distributors or resellers of automation components and parts, mostly imported. They are usually not involved in offering any customisation services, leaving this instead to system integrators. Due to the broad range of automation parts and components, each vendor tends to offer only a specific range of products.

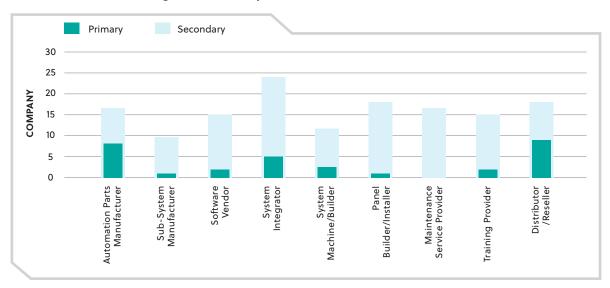
In documenting the Automation Value Chain, we have included hardware and software from local manufacturers as well as from overseas imports. Services, on the other hand, are largely provided through local expertise. Many of our local automation companies are fully capable of manufacturing and implementing automation systems for both local and overseas customers. Furthermore, our local companies and training institutions (whether 100% locally owned or with some foreign ownership) are completely capable of providing the majority of automation-related skill training, conducted by local experts with many years of relevant field experience.

Below are listed the statistics relating to the products and services offered by the MATA members:-

01

Areas of Specialisation

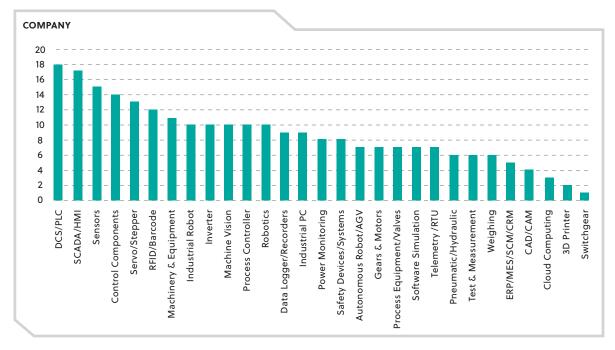
Our members have been able to provide good support across all categories of the Automation Value Chain. Below is a bar-chart showing their Areas of Specialisation:



02

Products Offered

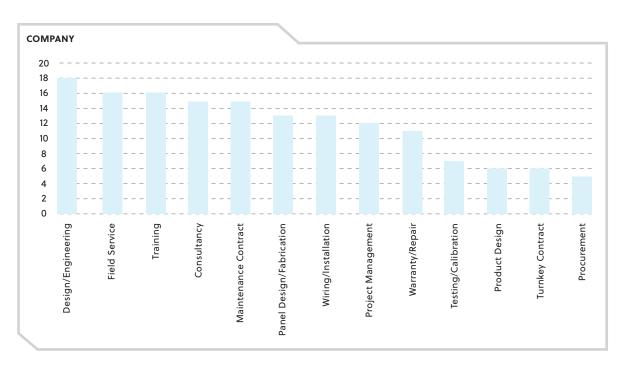
A comprehensive range of automation products is available from our local automation companies. We noted that most hardware and software components are imported from overseas manufacturers as the local market is generally considered too small for effective local manufacturing. Nevertheless, automation sub-components, control panels, machinery & equipment, and automation systems are largely implemented locally.



03

Services Offered

A complete range of automation services are available from our local automation companies. We noted that our local companies and local experts are capable of offering a full range of automation services for both local and overseas customers.



COMPETENCY MAPPING OF AUTOMATION COMPANIES

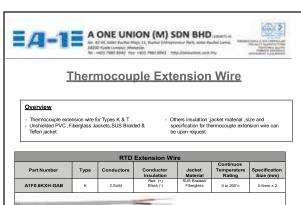
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5	Autovation Sdn Bhd				0	•	•	0	•	•	0	•	•	•		0	0	0	0	0	0	0	0	0 () (C) C) (<u> </u>		0	0	0	0	0	0	0	0	0	0	0
6	Beckhoff Automation Sdn Bhd	•	0	0	0	0	•	0	•	•	0	•	0	0	•	0	0	0	0	0	•	0	0	• (C) C) () C	0	0	0	0	0	0	0	0	0	0	0	0
7	Bistanika Sdn Bhd	•	0		0	0	0	0				0	0	0	0	0			•		0	0	0	0 (\sim		•	•	•	•		•	0	_		0	
	Distantina San Dira																																_	_	_	_	_			_	_
8	Camozzi Malaysia Sdn Bhd	•				•	•		•	0		•					•	•		•	•			•					(•		•				•			•	•	
9	Controller Area Network Solutions (M) Sdn Bhd	•				•		•	•	•	•						•	•		•					O	O	O)	(0	•		•	•							
10	Diagraph Corporation Sdn Bhd	•							0	0				•				•	•		0								(0		•		•				•			
11	DMC Solution (KL) Sdn Bhd	•	0	0	•	0	•	•	•	•	•	0	•	0	•	0	•	•	•	0	0	0	0	• () (•	•	•	•	•	•	•	•	•	•	•
12	Doeka Asia Sdn Bhd	•	•	•	•	0	0		•	•		0	•	0	•	0		0	•		•									•								•			
13	Ecava Sdn Bhd	•	0		0	•		0	•	•	0			•			•			•	•			•	(O	(O	•	0		•	0	0	•					0
14	EM Systems Sdn Bhd					0	•		•	0		•	0	•			0	0	0	0	0											•		•	0	•		0			
15	FA Controls Sdn Bhd					•	•		•	•		0	•		0	0					0						()				•		•	0	•					
16	Festo Sdn Berhad	0			•	•	•		0	0	0	0	0	0	•	•	0	•	•	•	0	0		0	(C) C)			•	•	•	•	•	•	0	•	•	0	0

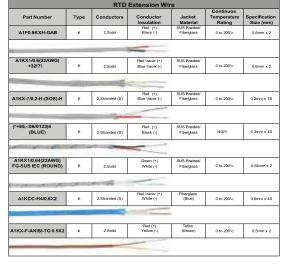
COMPETENCY MAPPING OF AUTOMATION COMPANIES

													/C - 50-												T. 1 t								Co	us Esur	autia.				
F ul	l competency		De	sign							наг	raware	Softv	vare Int	egrati	ion									T Integ	ration	_						Cor	re Exp	ertise				
O Co	llaboration with business/technology partners					ion						>5	5			int	nce																						
		System	Construction	Animation/Simulation	Retrofit	IoT Devices / Sensor / Actuator Installation	Network Communications Wireless /	Factory Automation IPC / PLC/SCADA / HMI	Process Automation DCS / PLC	Instrumentation / Control Valves	Machine Vision Inspection	dustrial Robots / Autonomous Robots / AC	RFID / Barcode / Traceability Solutions	Material Handling System	Warehouse Automation / ASRS	ower Monitoring / Energy Management	uipment Monitoring / Predictive Maintena	Machine Safety Installation	loT Gateway / Cloud Computing	ıfacturing	d Reality	3D Printing / Additive Manufacturing	OEE / Management Dashboard	SECS / GEIM MES/SCM/CPM/EPP	Big Data Analytics	Artificial Intelligence	Cyber Security	Customized Software	Agriculture/Palm Oil	Food & Beverage	Chemical, Oil & Gas	Electrical & Electronics	Mechanical & Metal	Automotive	Aerospace	Medical / Pharmaceutical	Rubber Product	Textile / Apparel	Furniture / Wood
No	Company					<u>o</u>						드				8	Еф					(1)														Ш			
17	Galactic Advance Engineering (M) Sdn Bhd					•	•	•	•	•		•	•			•		0		•			•		•	•	0	•	•	•	•		•			•	•		
18	HF Technology Sdn Bhd					0 ()				•	0	0				0		•	0			0 ()		0		0	0	0		•	0	0	0	0	0		
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20	IME Technology Sdn Bhd	•	•	•	•	•	•	•	•			•	•			•	•			•	•	•	•			•				•		•	•	•	•				
21 	Jaytron Automation (EM) Sdn Bhd					• (0	•	0		0		0	0		0	•	•	•										•	•	•	•	•	•	0	0	•	0	•
22 	JKS Engineering (M) Sdn Bhd	•	•		•	0		0	•	•	0	0	0	•			•						()				•				•	•	•	•	0			
23 ———	MIT Academy Sdn Bhd					•	• C	•				•	•						•	•	•	•			•)	0												
24 ———	Nissi Engineering Sdn Bhd					() (•	•		0	0	0	0			•													•	•	0						0
25 ———	Omron Electronics Sdn Bhd	•		0	•	•	•	•	•	0	•	•	•	0	0	•	•	•	0	•	0	0	• () C	0	0	0	•	•	0	•	•	•	0	•	•	0	0
26 ———	Packaging Sales & Service (M) Sdn Bhd	•				0 () C	0	0		0	0	0	•	0					0			•					0	0	•	0	•	0			0			
27 ———	Pc Automation Sdn Bhd	•	0	0	0	0 () C	•	•	0		0	0						•	•			•)			•	0	0	0						•		0
28 ———	Rittal Systems Sdn Bhd																													•	•	•		•					
29 	Sermax Automation Sdn Bhd					0		•	•	•			0			0	•												•	•	•	•							
30	SMC Automation (Malaysia) Sdn Bhd	0				0 (0	•	0	0		0		0						0			0		С)				0	0	0	0	0	0	0	0	0	0
31 ———	Vepro Group Sdn Bhd					• (0	•	•	•	•	•	•	•	•	0	0	•	0	•	•	0						•	•	•		•	•	0		0			
32	WEG South East Asia Sdn Bhd																•			0	•								0	•	•	•	•	0		0	0		0

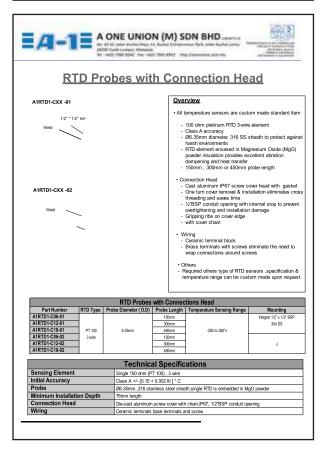
Automation Parts Manufacturers

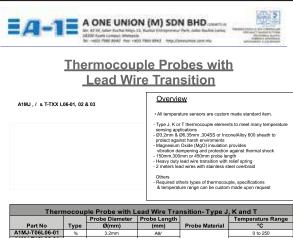
A One Union (M) Sdn Bhd









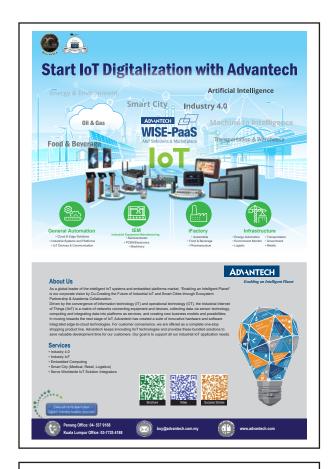


Thern	nocoup	ole Probe with L	ead Wire Tra	nsition-Type J	, K and T
		Probe Diameter	Probe Length		Temperature Range
Part No	Type	Ø(mm)	(mm)	Probe Material	°C
A1MJ-T06L06-01	%	3.2mm	A9/		0 to 250
A1MJ-T12L06-01	%	3.2mm	5//		0 to 250
A1MJ-T18L06-01	%	3.2mm	69/		0 to 250
A1MK-T06L06-01	К	3.2mm	A9/	5/6	0 to 400
A1MK-T12L06-01	K	3.2mm	5//	Stainless Steel	0 to 400
A1MK-T18L06-01	K	3.2mm	69/		0 to 400
A1MT-T06L06-01	Т	3.2mm	A9/		-200 to 250
A1MT-T12L06-01	T	3.2mm	5//		-200 to 250
A1MT-T18L06-01	Т	3.2mm	69/		-200 to 250
A1MJ-T06L06-02	%	6.35mm	A9/		0 to 250
A1MJ-T12L06-02	%	6.35mm	5//		0 to 250
A1MJ-T18L06-02	%	6.35mm	69/	5A2	0 to 250
A1MK-T06L06-02	К	6.35mm	A9/	Stainless Steel	0 to 400
A1MK-T12L06-02	K	6.35mm	5//		0 to 400
A1MK-T18L06-02	К	6.35mm	69/		0 to 400
A1MK-T06L06-03	K	3.2mm	A9/	Inconel	0 to1,000
A1MK-T12L06-03	К	3.2mm	5//	Alloy	0 to 1,000
A1MK-T18L06-03	К	3.2mm	69/	2//	0 to 1,000

Technical Specifications									
Junction Type	Grounded								
Probe	Ø3.2mm & 6.35mm,304 s/s or Inconel Alloy 600 sheath,single thermocouple element is embedded in MgO powder								
Minimum Installation Depth	Ø3.2mm (44.5mm),Ø6.35mm (76mm)								
Wiring	2 meters stranded 22AWG wire leads with stripped ends, fiberglass insulation and stainless steel overbraid								
	The state of the s								

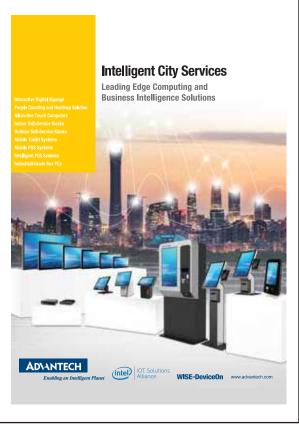
Automation Parts Manufacturers

Advantech Co. Malaysia Sdn Bhd



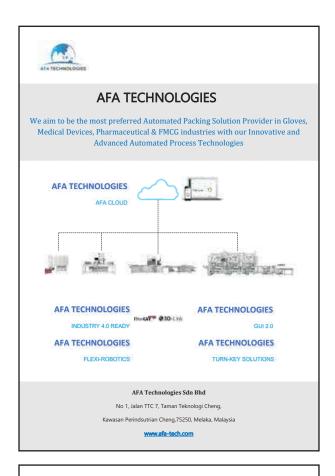






Automation Parts Manufacturers

AFA Technologies Sdn Bhd





AFA TECHNOLOGIES

What makes us go forward - Advanced Factory Automation with Industry 4.0

The Industry 4.0 project, which is essentially a fourth industrial revolution, is becoming increasingly important

AFA TECHNOLOGIES

INDUSTRY 4.0 READY



All our machines are industry 4.0 ready! We design our control system based on EtherCat field bus technology and works seamlessly with in house developed Pc-Based GUI System (Graphical User Interface) that able to serve with all kinds of requirement for upstream data request that will enable our customers to link to any ERP. MRP. WMS, Databases, Robots, OPC Equipped Devices and etc. 10-Link based sensors are gradually been implemented and this will further enhance the machine with smart sensor features. In fact, we have been using PC-Based System in our machines since year 2002!

AFA TECHNOLOGIES

Moving towards Predictive Maintenance! We have launched Predictive Maintenance to our latest machines since 2016. This allows our end user to have a better precaution on the component levels awareness and able to prepare the replacement parts before the component breaks down. Furthermore, AFA is committed to utilize more IO-Link based sensors in future to further enhance the Predictive Maintenance accuracy with more user friendiness. We are also working hard on future AFA GUI 2.0 which promise to deliver more user friendiness, more advanced features in Predictive Maintenance, seamlessly integration with AFA GUI Colud and most importantly! Kuil be RFREE for our all customers as part of the commitment from AFA to continuously provide the best customer service experience.





Proudly introduce AFA Cloud! We have collaborating hand to hand with ViTrox (Malaysia Biggest
Automated machine vision inspection system provider) with their Cloud Solution namely V-One. This
allows our machine's data to be pushfyell to the cloud and customers are able to monitor the machine
performance such as OEE, down time, up time, actual output and root cause analysis in real time base







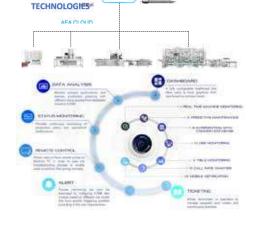




AFA Turn-Key Solutions! We have the capabilities to provide Turn Key Solutions towards your packaging needs in medical gloves and medical devices. Our product ranges from Glove Leak Test Machine, Glove Inner Wallet Wrapping Machine, Glove Outer Pouch Machine, Thermo-Form Fill Scal Machine, Robotic End of Line Solutions, Glove Auto Cuffing / Placing System, Vision Inspection System Auto Cartoning Machine for Examination Gloves, Assembly Machines for Medical Devices, Case Packer Case Auto Erector, Auto Dispenser Printing Machines and many more We are also the patent right owner for the innovative solutions that are embedded into these machines.

AFA CLOUD

AFA Cloud drives toward a highly customizable one-stop platform which offers data driven decisions in manufacturing by allowing stakeholders to remote, visualize, monitor, control and implement condition-based alerts to reduce downtime and increase throughput.



Automation Parts Manufacturers

Beckhoff Automation Sdn Bhd

BECKHOFF at a glance

BECKHOFF

Beckhoff implements open automation systems based on PC Control technology. The product range covers Industrial PCs, I/O and Fieldbus Components, Drive Technology and Automation software. Products that can be used as separate components or integrated into a complete and seamless control system are available for all industries. The Beckhoff "New Automation Technology" philosophy represents universal and open control and automation solutions that are used worldwide in a wide variety of different applications, ranging from CNC-controlled machine tools to intelligent building automation.

Worldwide presence on all continents The central divisions of Beckhoff, such

The central divisions of Beckhoff, such as development, production, administration, distribution, marketing, support and service are located at the Beckhoff Automation GmbH & Co. KG headquarters in Verl , Germany. Rapidly growing presence in the international market is taking place through subsidiaries and branch offices in Austria, Belgium, the Czech Republic, Denmark, Finland, France, Hungary, Italy, Norway, Poland, Russia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, as well as in Australia, Brazil, Canada, China, Egypt, India, Indonesia, Israel, Japan, Malaysia, New Zealand, Saudi Arabia, Singapore, South Africa, the United Arab Emirates and the USA. Through world- wide co-operation with partners, Beckhoffis represented in more than 70 countries.

Contact us:

BECKHOFF AUTOMATION SDN BHD

Address : Lot 7, Lorong Teknologi A, Jalan Teknologi, Taman Perindustrian Sains Selangor,

Kota Damansara, 47810, Petaling Jaya, Selangor. Phone: +603 – 6151 3088 Email: info@beckhoff.com.my



Automation Parts Manufacturers

Beckhoff Automation Sdn Bhd





Automation Parts Manufacturers

Camozzi Malaysia Sdn Bhd









Automation Parts Manufacturers

Festo Sdn Berhad

We drive automation for your success. We are your partner to inspire you. We shape the future together.

→ WE ARE THE ENGINEERS OF PRODUCTIVITY.





Security | Simplicity | Efficiency | Competency

Companies seeking to be globally successful need to systematically increase their competitiveness. Together we have a very big goal: improving your productivity. Security, efficiency, simplicity and competency: qualities which are found in all of our products, services and training offerings for factory and process automation. Why not take advantage of them? Every day, anywhere in the world.

www.festo.com

Automation Parts Manufacturers

Omron Electronics Sdn Bhd

OMRON

Introduction

In today's globalized manufacturing environment, diverse and complex challenges arise. The global market rapidly changes, and manufacturing companies are under increasing pressure to supply products in a timely manner that satisfy a wide variety of consumer needs. OMRON industrial automation makes efficient, flexible and cost-effective manufacturing possible.

"innovative-Automation" represents OMRON's vision of a revitalized manufacturing industry. It's a keyword for OMRON to develop future manufacturing together with customers. The future manufacturing that OMRON pursues can be indicated by three "its" of automation: that is, integrated, intelligent and interactive automation as follows:



"Integrated automation"

OMRON continues to take initiatives to enhance productivity of manufacturers by pursuing high-speed and high-precision machine controls.



"Intelligent automation"

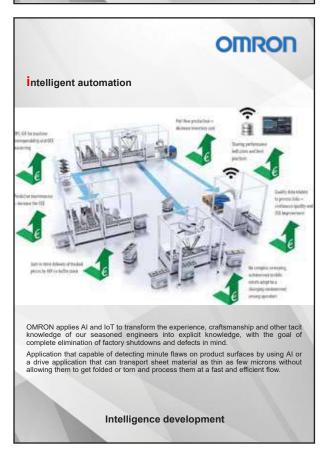
OMRON utilizes factory data to its full potential and is learning from the integration of well-cultivated control techniques and pioneering Al and IoT to make the evolution of our machines and production lines a reality.



"Interactive automation"

OMRON is working towards a future of integrated manufacturing by making the best use of the strengths of machines, robots, and people to form a complete collaborative team.







Automation Parts Manufacturers

Rittal Systems Sdn Bhd





Systematic product solutions.





Major energy savings with optimum climate control.



IT infrastructure – Flexible, standardised, custom-fit.



Automation Parts Manufacturers

SMC Automation (M) Sdn Bhd





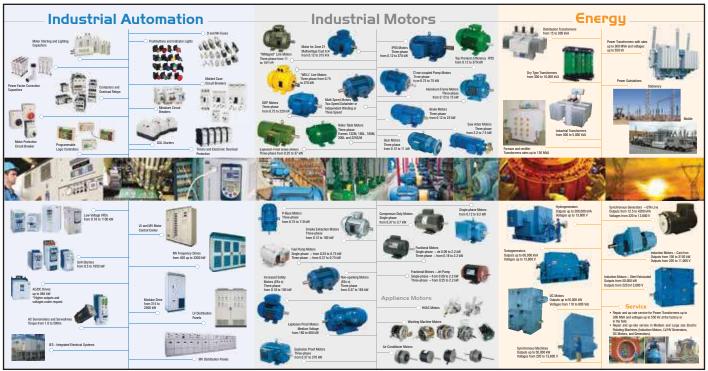




Automation Parts Manufacturers

WEG South East Asia Sdn Bhd



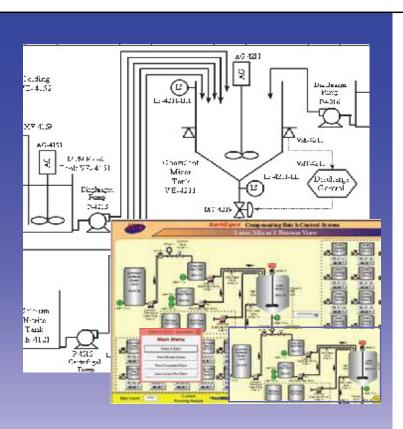


DIRECTORY OF COMPANIES

Sub-System Manufacturers

Pc Automation Sdn Bhd

BatchExp rt - IoT Smart Batching Control



Advanced & High Quality Production

Integrated IoT Smart Batch Control System

<u>Features:</u>

IoT-based Control (I4.0 implemetation)

IoT has built-in Logic, Automatic (PID) Control, On-Off Control, plus Modbus RTU port

Unlimited, Master Recipes

Traceability with auto Control Recipes for every batch

Automatic batch error Correction (Self-learning)

Automatic recipe encryption protects your Intellectual Properties (IP) & Recipes

Adhere to International Batch Control Standard (ANSI/ISA-S88)





Desktop Computer



or Tablet





Eliminates





Pc Automation Sdn. Bhd.

Lot 2-4B, 2nd. Floor, Incubator 2, Technology Park Malaysia, Bukit Jalil, 57000 Kuala Lumput, Malaysia www.pcauto.com.my email: sales@pcauto.com.my, Tel: +603-8996 0310 / 0024, Fax: +603-8996 0331

Sub-System Manufacturers

Pc Automation Sdn Bhd

Model: IoT-SBC32 Integrated IoT Smart Batch Control System

for Advanced & high Quality Production

Six criteria of Smart (Flexible) Batch Control (built into Iot-SBC32):

- 1. Formulation & Batch Procedures (Sequences) are user defined in Master Recipe without programming.
- ' Automatic Control Recipe generation for Batch Traceability
- * Automatic Control, Data Analysis & Reporting
- Automatic batch error correction on-the-fly (Self-learning)
- / Automatic end-to-end encryption protects your IP (Recipes & Results)
- Adhere to International Batch Control Standard (ANSI-ISA-S88)

Corporate Level Computers Store batch results from all factories



Compounding Department Recipe Download & Control





Hand-phone or Tablet

Production Department
Batch ordering & monitoring





Laboratory QA/QC

Smart IoT Contro Automatic plus Ma batching Control



No More Control Panels

Batch Processing Plant Mixing Tanks Ingredient Tanks Holding Tanks

BatchExp rt (model IoT-SBC32) is a Batch Control System that adheres to the International ANSI/ISA-S Batch Control Standard. It features unmatched flexibility and consistency using advanced IoT-based control technology.

It is an Integrated System, with Batch Ordering, Batch Control, Monitoring, Data Analysis and Realtime Reporting modules. It is scalable to handle multiple mixers simultaneously.

- *Unlimited* user created Master Recipe
- On-line/Off-line design of Master Recipes
- Optimizes for Consistent & Accurate batch control
- · Improves batch Quality & Yield
- Avoid Reworks/wastage
- Supports combined Automatic/Manual operations
- Scalable for simultaneous multiple mixers control
- Increased manufacturing profits
- Logic, PID and On-off Control
- Built-in Modbus RTU port
- Barcode printing for Sampling bottles
- Barcode links each batch with its laboratory QA/QC results
- On-line Lab Analysis with Pass-Fail Criteria Matrix
- Proven with more than 30 years of batching experience

Note: Specifications are subjected to technical changes without notice.



Pc Automation Sdn. Bhd.

Lot 2-4B, 2nd. Floor, Incubator 2, Technology Park Malaysia, Bukit Jalil, 57000 Kuala Lumput, Malaysia www.pcauto.com.my email: sales@pcauto.com.my, Tel: +603-8996 0310 / 0024, Fax: +603-8996 0331

Software Vendors

DMC Solution (KL) Sdn Bhd

ABOUT US



DMC Solution (KL) Sdn. Bhd. Started operations in the year 2002. Through our twenty years worth of experience in the Industrial Automation Industry, we value each individual's contribution to our success, and we motivate people by means of integrity and ethics.

Our business is to be the Industrial Engineering key player, which provides application-based solutions to solve customers' process problems



Our Applications Engineers provides design services for customised drive systems used in a wide variety of industries. The Company produces simple to complex turnkey motor drive systems, which is integrating Inverters, Servo, Robotics, with PLCs and SCADA Control System.

In short, DMC Solution is a Total Systems Integrator, specialising in motion technology, and also any application related to electrical power control management, eg. MCC, Switchgear and power monitoring system.

We value each individual's contribution to our success and constant support to personal development. As a team, we gather the best knowledge, intelligence and skill to constantly improve our work and benefit our customers. Working together as a team with our customers, we develop better solutions.



- 07 Aerospace
- 08 Rubber Product
- 09 Medical / Pharmaceutical
- 10 Furniture / Wood
- 11 Textile / Apparel
- 12 Paper & Paper Products

01 Electrical & Electronics

02 Mechanical & Metal

03 Food & Beverage

04 Agriculture / Palm Oil

05 Chemical, Oil & Gas

06 Automotive

Products We Carry

Drives





Control



Services We Provide



01 Installation 02 Testing & Commissioning 03 Servo / Motion Control

04 Retrofit

05 System

06 Equipment Monitoring & Predictive Maintenance

07 Factory Automation IPC/PLC/SCADA/HMI

08 Process Automation

09 Power Monitoring / Predictive

Maintenance

10 Industrial Robots / Autonomous Robots /

11 OEE / Management Dashboard

Software Vendors

Ecava Sdn Bhd



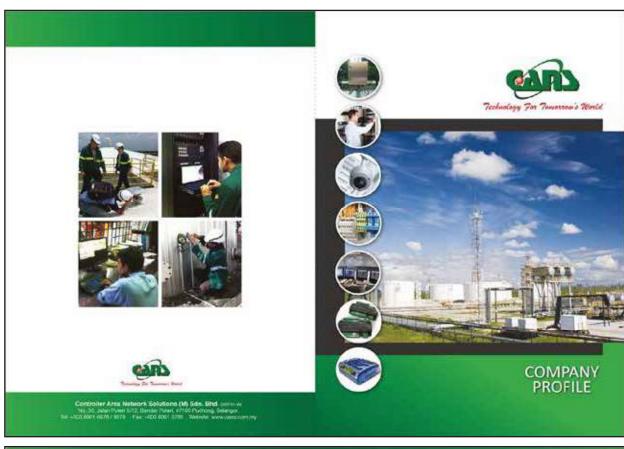






System Integrators

Control Area Network Solutions (M) Sdn Bhd





System Integrators

Control Area Network Solutions (M) Sdn Bhd





System Integrators

Galactic Advance Engineering (M) Sdn Bhd





Registered Business Address
No. 11, Jalan SS1/39, Kampung Tunku,
47300 Petaling Jaya, Selangor Darul Ehsan,
Malaysia

Tel: +6 03 7865 7383 Fax: +6 03 7865 7282 Email: galactic@galactic-eng.com Website: www.galactic-eng.com

Contacts Chief Operating Officer (COO) 012 206 7003 Sales & Service Manager 012 279 1029 (after office hours)

Chemical Food & Beverage Glove Metal & Steel Mining & Cement Oleo Chemical Oil & Gas Pharmaceutical Pulp & Paper Semiconductors

GALACTIC ADVANCE ENGINEERING 2 C O M P A N Y PR O F I L E

"Engineering Peace of Mind Solutions for Our Customer Needs"

At Galactic Advance Engineering, we take utmost pride in engineering performance and reliability into our projects and services. We commit strongly to serve our cilients from beyond prompt delivery to rapid and efficient technical support.

The evidence is in our longstanding partnership with global cliental built on trust and result.

Our clients may acknowledge our strengths in advance engineering solutions,we prefer to say that we "Engineer Peace of Mind".

Vision Mission

Our Achievement

Our Objective







Our Commitment

Comprehensive project development and back-up support services

Project Engineering (New Projects) Including Project management, software, hardware engineering and panel building.

Support Services and Maintenance:

- 24 hours bottine connecting automated factory direct to fully trained Galactic Engineers.
- Back-up engineers available anywhere in the region on short-notice.
- Preventive maintenance programs with site visits at pre-determined intervals Advice on recommended spare-parts of critical modules.
- Modification packages to change the configuration of the systems.

At Galactic, we ensure total commitment and reliability by providing our clients the most

ASIA PACIFIC ENGINEERING SUPPORT PARTNER











24/7 support team

GALACTIC ADVANCE ENGINEERING 4 C O M P A N Y P R O F I L E

System Integrators

Packaging Sales & Service (M) Sdn Bhd



□ BULK BAGGING



FILLING SYSTEMS

A PALLETISING

INSPECTION SYSTEMS





PACKAGING SALES & SERVICE (M) SDN BHD

O 4A, Jalan Teluk Pulau 27/88, 40400 Shah Alam, Selangor, Malaysia

System Integrators

Sermax Automation Sdn Bhd



System / Machine Builders

Doeka Asia Sdn Bhd

CONTACT



DOEKA Europe

DOEKA Europe GmbH

Phone : +49 (0) 6201 7049 275 Telefax : +49 (0) 6201 7049 156 E-Mail: administration@doeka.com



DOEKA Asia

DOEKA Asia Sdn. Bhd. (Company No. 608572-T) No. 24, 26 & 28 Jalan Meranti Jaya 10 Taman Industri Meranti Jaya 47120 Puchong: Selangor Darul Ehsan Malaysia

Phone : +60 (0) 3 8052 3300 Telefax : +60 (0) 3 8052 6000 E-Mail: commercial@doeka.com





www.doeka.com





System / Machine Builders

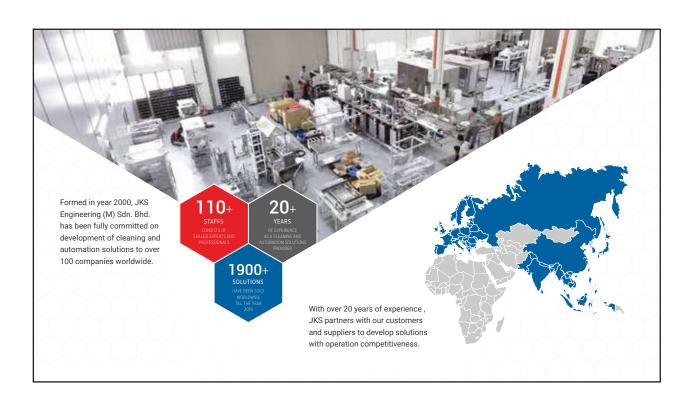
Doeka Asia Sdn Bhd





System / Machine Builders

JKS Engineering (M) Sdn Bhd



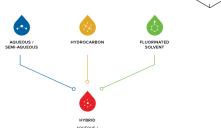
WHAT WE CLEAN

We provide customised cleaning process designs within our standard platform after considering various aspects of the part and the type of contaminant affecting the part.

DOWNSTREAM PROCESS CHEMISTRY COMPATIBILITY CONTAMINATION ORGANIC SHAPE COMPLEXITY DESIRED THROUGHPUT INORGANIC

OUR CHEMISTRY

Our strength lies in building long-term partnership with various chemical suppliers in the dedicated industry to provide our customer with operational competitive chemistry.



OUR MECHANICS

Utilizing the right chemistry and cleaning mechanics to satisfy the need of different industries.





TRASONIC CLEANING

ADVANVE VACUUM







VAPOR TECHNOLOGY

System / Machine Builders

JKS Engineering (M) Sdn Bhd









CT SERIES

flexibility processes.

Open/Fully Enclosed batch handling type Cleaning System which consists of multiple tanks, capable of providing high throughput and performing high

FE SERIES

Front Loading Fully Enclosed Cleaning System Design which consists of a fully sealed single chamber, capable of performing flexible process with high efficiency.

TT SERIES

Flexible modular construction with simple movement mechanism, capable of handling general cleaning applications.

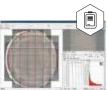
CC SERIES

Fully Enclosed Continuous Conveyor Cleaning System which consists of multiple tanks, capable of providing high throughput cleaning application and efficient process.









PROCESS VALIDATION

1. PARTICLE EXTRACTION

Process to detach particulate contamination from part using rinsing solvent.

- Equipment: Glaeser ACM 18
- Method: Ultrasonic / Spray Rinse
- Rinsing Solvent: Paraffinic Hydrocarbon

2. FILTRATION & DRYING

Process of capturing particulate contamination from rinsing solvent using filter membrane, followed by membrane drying.

- Equipment: Glaeser Easy Dry II
- Method : Vacuum Dry

3. PARTICLE COUNTING & CLASSIFICATION

The sizing and categorizing of particulate contamination under cleanliness class / range.

- Equipment:
- Kevence Microscope VHX-5000 Mitani Contami Analyser
- Particle Classification: Metal, Non-Metal, Fiber

4. REPORT

Particle Count Report specifies the cleanliness level of extracted part. The report is in compliance with VDA 19.1 and ISO 16232.





System / Machine Builders

Vepro Group Sdn Bhd



Robotic System











Fully Automatic System



System / Machine Builders

Vepro Group Sdn Bhd



Workshop Setup Prior Delivery









Conveyor System





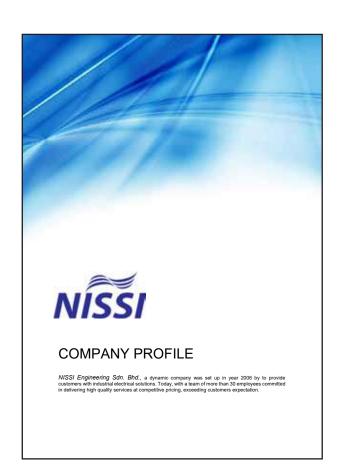






Panel Builder / Installers

Nissi Engineering Sdn Bhd



Panel Wire-Looping Project









Scada System for Premium Flat



Touch Screen System for Green Environment



Field Installation Project

1. Car Paint Shop @ Klang

We were awarded with a project to cover the electrical scope for a well-known car's new plant's paint

The project was started in March 2018 and we managed to complete the said project by end of June 2018 as per planned schedule.

We have allocated a team of 50 persons, including safety officers, project coordinators & site supervisors covering project scopes of:

- Site wiring.
 Testing & I/O check
 Material sourcing/procurement for any miss-planned material
 Project schedule monitoring/ status update

2. Warehouse Auto-deck System @ Malacca

We were awarded with a project to supply control panels & sub panels together with site installation wiring work for a newly implemented warehouse production auto-deck system at Malacca.

The project was started by in early July 2018 and we managed to complete the said project by early August 2018 (ahead of planned schedule)

We have allocated a team of 19 persons, including project coordinators, site supervisors covering project scopes of:

- yect scopes or.

 Supply of control panels, sub-panels.

 Material unloading
 Installation of panes, etc.
 Pre-wining for instruments
 Site wiring
 Testing & I/O check
 Material sourcing/procurement for any miss-planned material
 Project schedule monitoring/ status update

NISSI ENGINEERING SDN. BHD. (732271-A)





Training Providers

AS Automation Systems Training Centre PLT



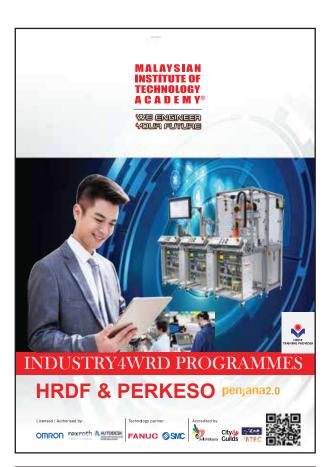
Training Providers

AS Automation Systems Training Centre PLT



Training Providers

MIT Academy Sdn Bhd









Distributor / Resellers

Autovation Sdn Bhd

AUTOVATION SDN BHD



Business Nature (1)

AUTOMATION TECHNOLOGY (AT)

We offer a full range of automation components and systems with the application know-how and support necessary to build and maintain any sophisticated automation systems. In manufacturing, benefits span all facets of the production process. Seamless integration with Ethernet/IP, EtherCat and IO Link networks.



AUTOVATION SDN BHD



Business Nature (2)

INDUSTRIAL COMPONENT (IC)

From micro-relays to advanced sensors, we offer a wide range of comprehensive advance products to meet the needs of the customers. These products can be found in industrial applications such as relays, switches, vision sensor, timer/counter and temperature controllers.













Sensors

Relays & Switches

Timer &

Switching Power Supply

Temperature Controllers

2

Distributor / Resellers

Autovation Sdn Bhd

AUTOVATION SDN BHD



Business Nature (3)

Visual Inspection System



In today's automated production environment, processes like inspection, dimension measurements and positioning have demanded increasingly varied and complex vision applications. Omron's vision systems are designed to speed up and simplify these processes.



FQ2 Smart Camera



FQM Series Vision Sensor



FH Vision System

3

AUTOVATION SDN BHD



Business Nature (4)

Engineering, Solution & Repair Services

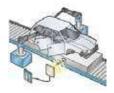
We have a team of experienced Application Engineers to support you. Our engineers specialised in sensing devices, Programmable Controllers, Control Components and many other Omron products. With our experience and knowledge, we are able to convert customer's conventional factory system into a trouble-free, easy monitoring system.



Conveyor System



Automatic Inter-Process



RF Identification System



Pick and Place System

Distributor / Resellers

Bistanika Sdn Bhd

Best

In

BISTANIKA

Systems,

Total,

A single partner for all your needs From conceptual design to Project implementation, Operation & maintenance

Automation,

aNd

In-depth

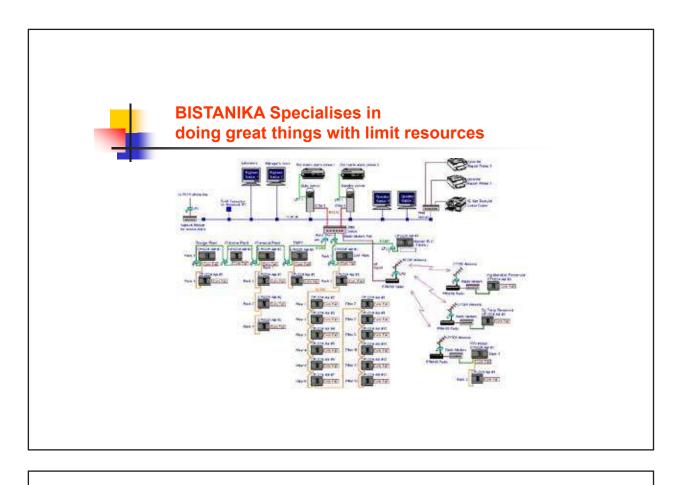
Knowledge in

Automation of many Processes



Distributor / Resellers

Bistanika Sdn Bhd





Contact us @

Visit us @ Bistanika-Siemens.blogspot.com

BISTANIKA SDN BHD(179242-X)

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TEL: (603) 6274 1566 FAX: (603) 6272 0811

E-MAIL: bistanika@gmail.com Siemens Partner since 2003



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10" touchscreen

auto-cleaning printheads

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An ITW Company

Distributor / Resellers

Diagraph Corporation Sdn Bhd



Diagraph Corporation Sdn Bhd

No. 17, Jalan PJS 11/8, Bandar Sunway, 46150 Petaling Jaya, Selangor, Malaysia.

Tel: +603-5634 1990 Fax: +603-5634 1997 Service Hotline: +6016-218 1990

Email: enquiry@diagraph-my.com Web: www.diagraph.com

Distributor / Resellers

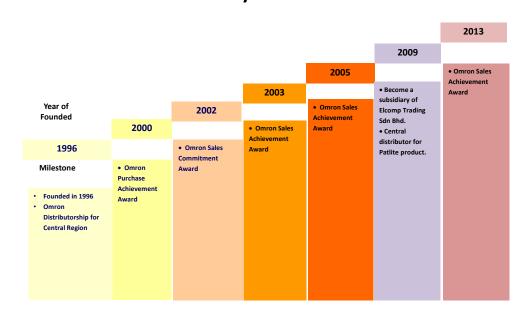
EM Systems Sdn Bhd

1. EM Systems In Brief

EM System Sdn Bhd is a joint venture company with Elcomp's group and Electrical Marketing Sdn Bhd. The said company is Authorized Distributor for Omron's product in central region and specialized in Industrial Automation, Control and sensing components. Our service ranges are inclusive product application, system integration and commissioning related to industrial automation and product training .



2. History & Milestone



Distributor / Resellers

EM Systems Sdn Bhd

Major Customers



















8. Targeted Industry



Machine Automation



Educational Sector



Manufacturing Executive System



Process Automation



Environmental Monitoring

Distributor / Resellers

FA Controls Sdn Bhd



















- Collaborative robotic arm, toolings and mobile robots
- Robots working alongside with human
- Easy to operate without required coding skills

- Lights out manufacturing is now a reality
- Food grade end of arm toolings available for F&B industry
- We customize these technologies to suit your needs

KI ANG VALLEY

FA CONTROL SDN BHD

No. 6. Jalan TPK 1/6 Seksven 1. Taman Perindustrian Kinrara, 47180 Puchong, Selangor , Malaysia. Tel: +60-3-8070 8866 Fax: +60-3-8070 8899

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JOHOR

FA CONTROL SDN BHD

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Distribute by:





Website: www.fa.com.my

Email: sales@fa.com.my

Distributor / Resellers

HF Technology Sdn Bhd



Distributor / Resellers

ifm electronic Pte Ltd







Phone: +603 8066 9853 Fax: +603 8066 9854

Toll free call: 1800 88 4363 E-mail: sales.my@ifm.com Technical support: technicalsupport@ifm.com



Distributor / Resellers

IME Technology Sdn Bhd









Distributor / Resellers

Jaytron Automation (EM) Sdn Bhd









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A OIIC	ш	Guil	

Company Registration No.

1004072-A

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Tan Ching Khang

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Johor

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Sunderasen a/l Thangarajan

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Wilayah Persekutuan		

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Controller Area Network Solutions (M) Sdn Bhd			
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Selangor	LinkedIn	Controller Area Network Solutions (M) Sdn Bhd	

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195704-K	Fax No	03-56141280
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40400 Shah Alam,	Website	www.diagraph.com.my
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Name of MD/CEO

Tang Ang Shyong

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182945-M		
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47160 Puchong,	Website	www.rittal.com.my
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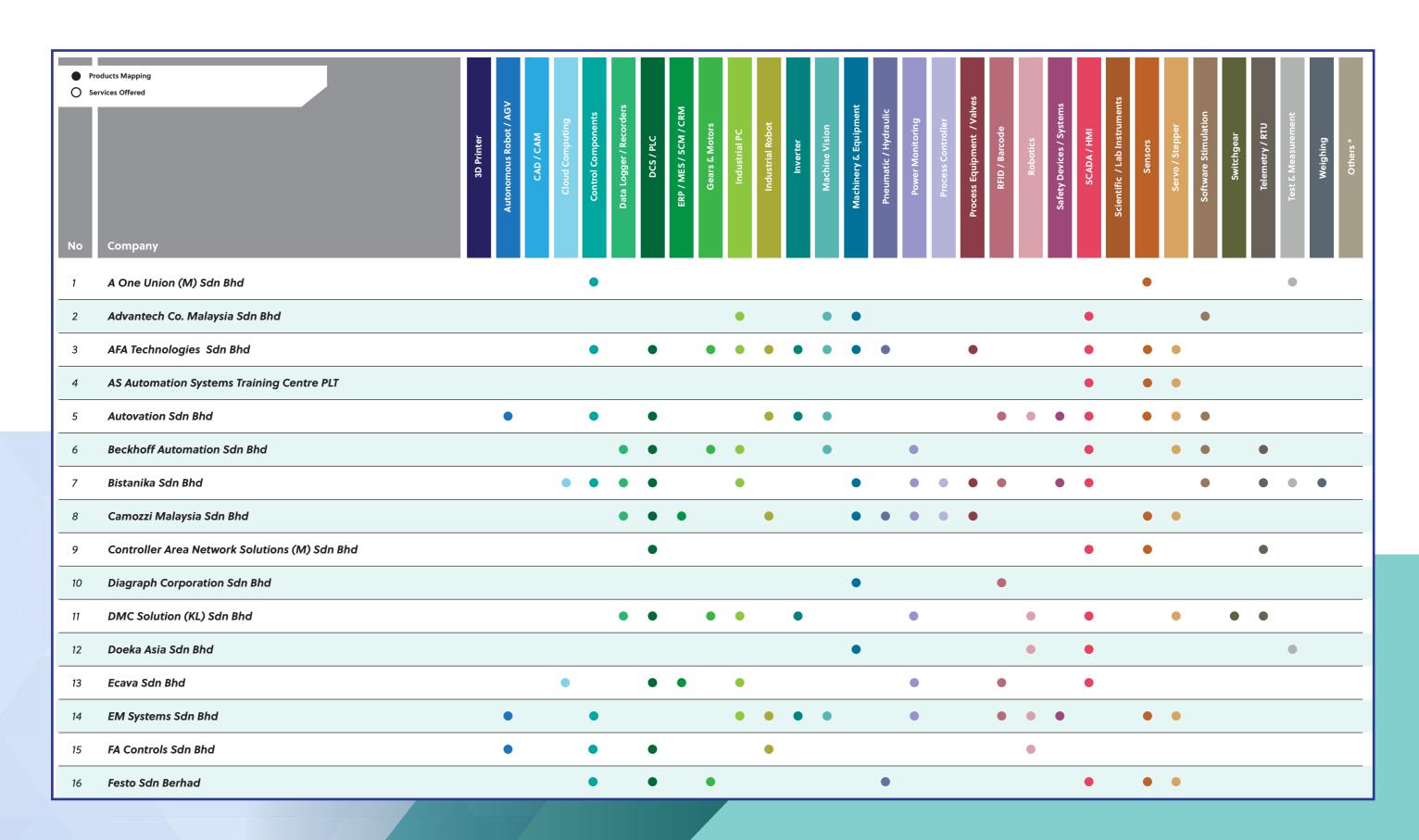
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Company Registration No.	Tel. No	03-51315113
201201027058 (1011548-K)		
Address	Business Email	sales@sermax.my
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Selangor		

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197801001471	Fax No	03-56350601
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Selangor	LinkedIn	SMC Automation Malaysia

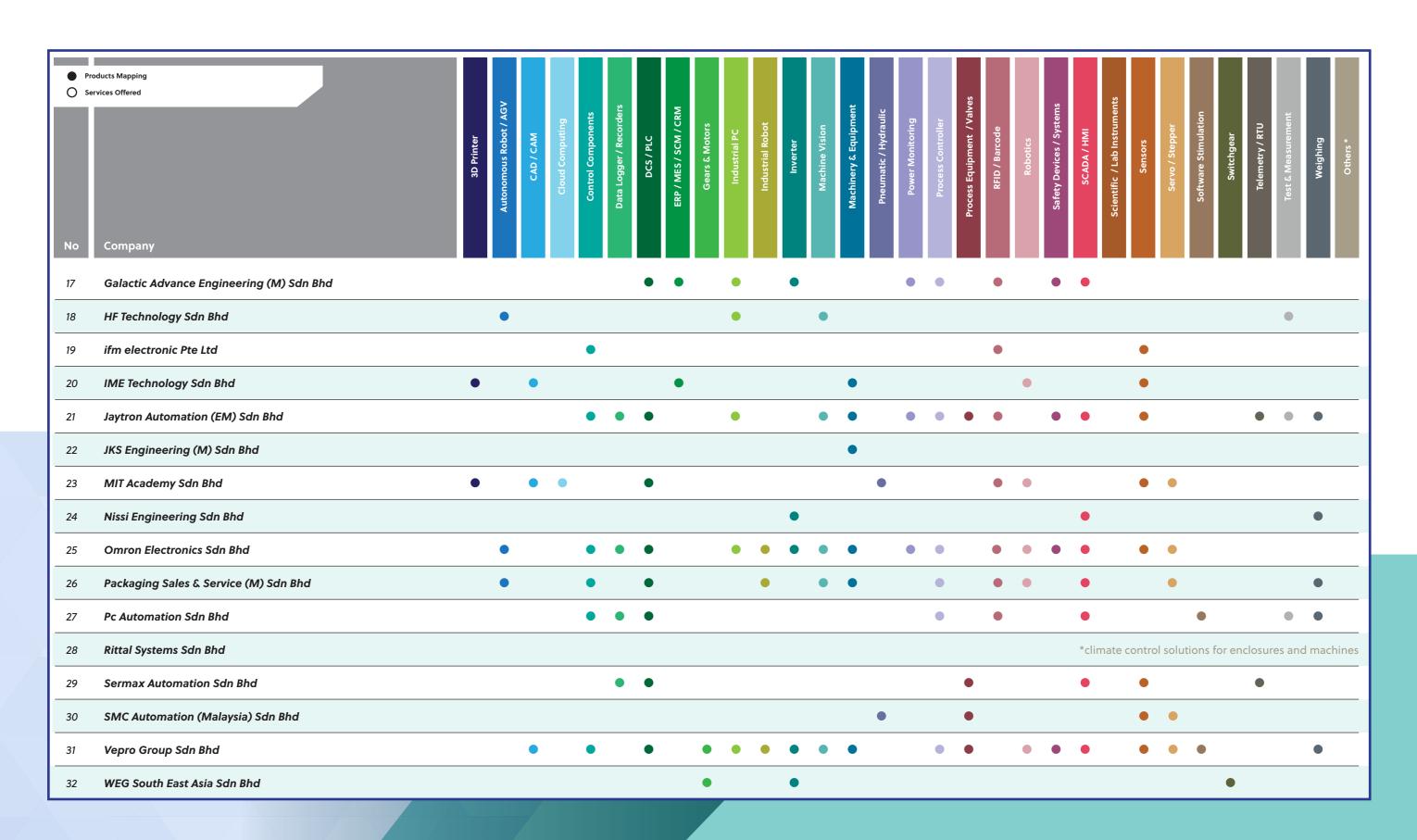
Vepro Group Sdn Bhd		
Company Registration No.	Tel. No	03-31231081
613188-X	Fax No	03-31231080
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WEG South East Asia Sdn Bhd		
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303407-P	Fax No	03-78591623
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40150 Shah Alam,	Website	www.weg.net/institutional/MY/en/
Selangor		

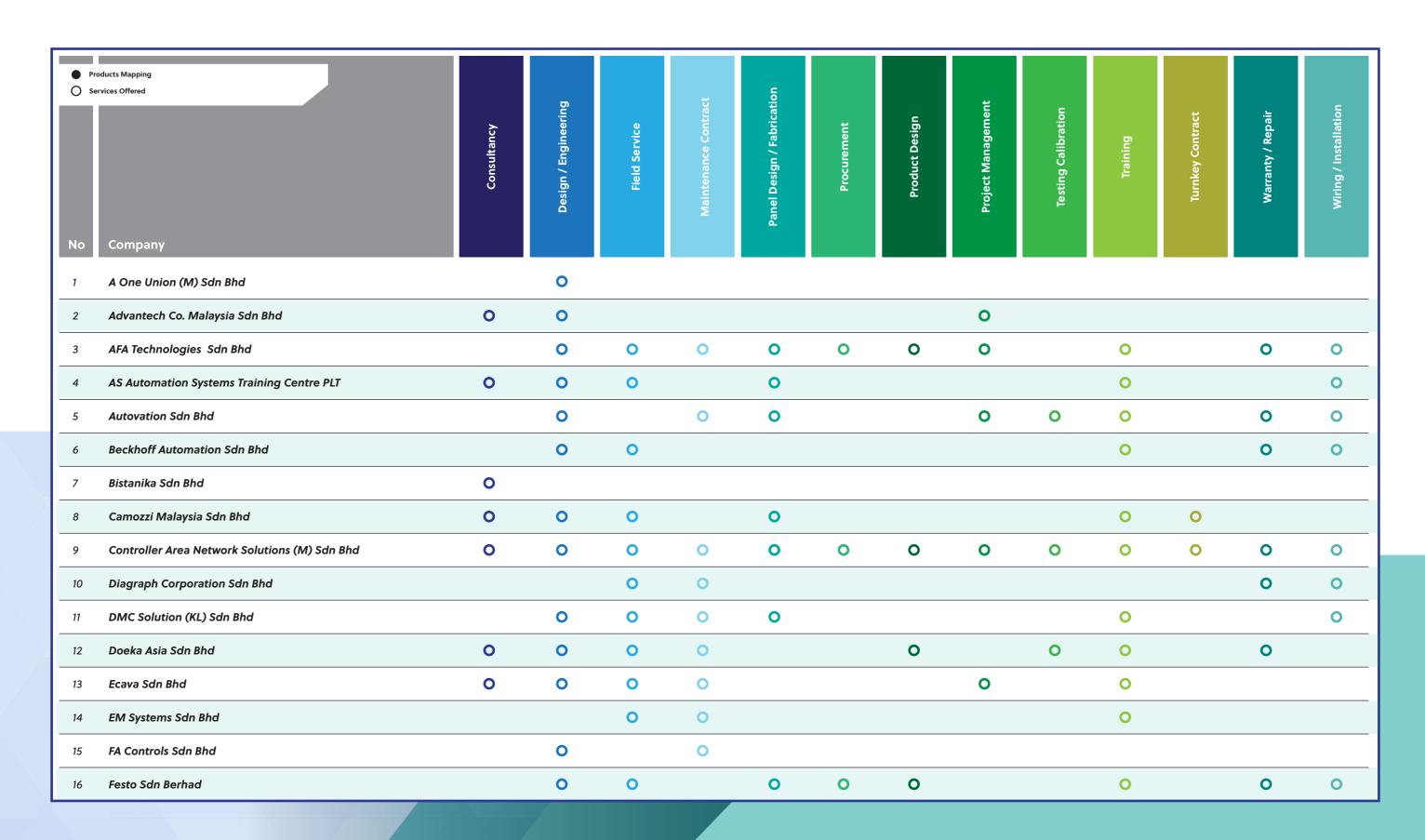
APPENDIX 2: Products & Services Mapping



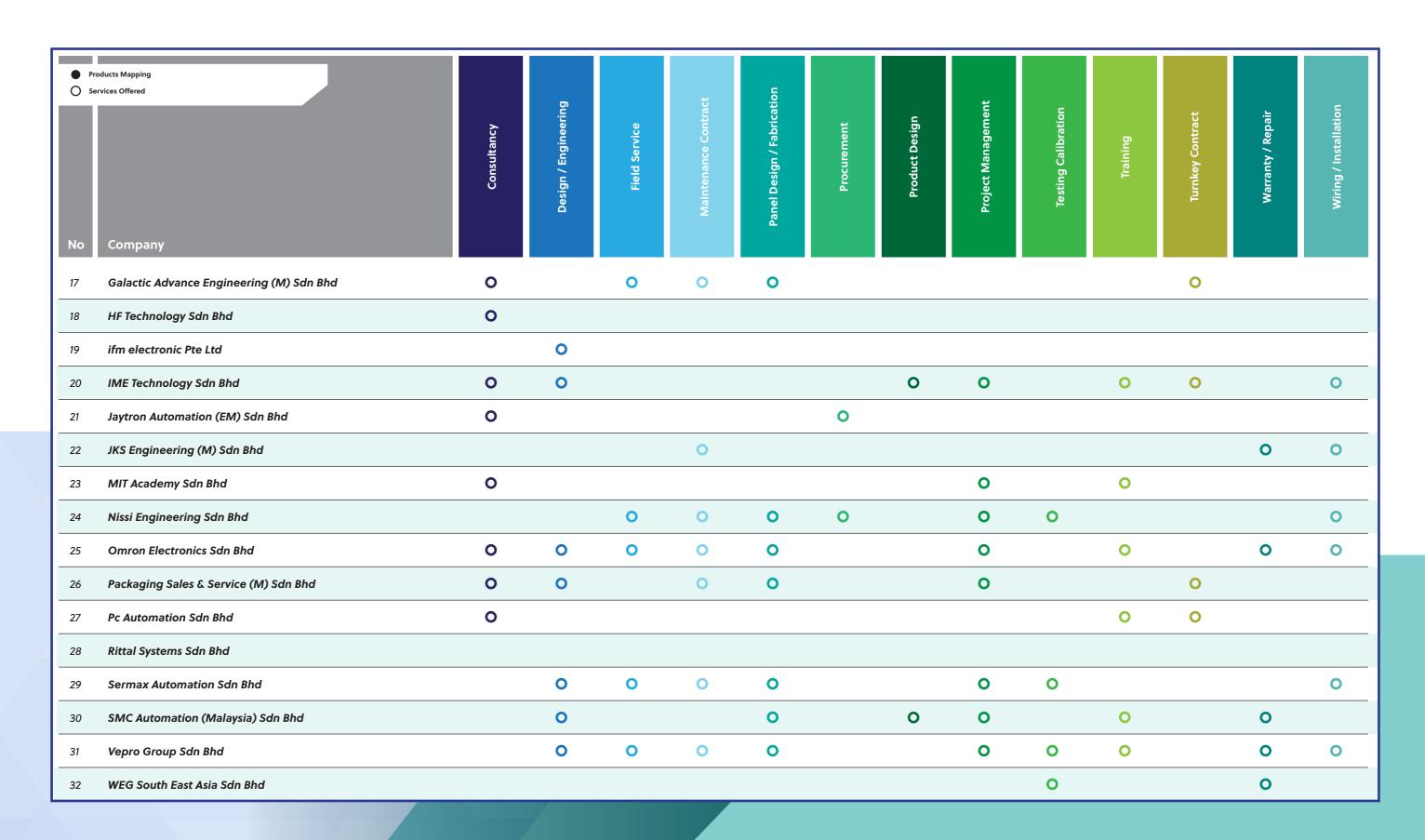
APPENDIX 2: Products & Services Mapping



APPENDIX 2: Products & Services Mapping



APPENDIX 2: Products & Services Mapping



Machinery & Equipment Productivity Nexus (MEPN)

Malaysia Productivity Corporation (MPC) Lorong Productivity Corporation, Jalan Sultan, 46200 Petaling Jaya, Selangor.

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Email: mepn@mpc.gov.my

Website: https://wayup.my/machinery-equipment/





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Website: www.automation.org.my



