# Ir. Dr. Abdul Azim Bin Abdul Rahman, MIEM, PEng., PhD.

Director – Product Engineering Asia Pacific, Steelcase Office Solutions (M) Sdn Bhd.

Leading Asia Pacific Product Engineering Department in Product Development and Life Cycle Management. Accomplished and skilled engineer with experience includes providing technical advice in Mechanical Engineering specifically on Mechanical Design, Manufacturing and Automotive as well ergonomics design of office furniture and manufacturing assembly line. A highly motivated individual who seeks a position in an organization that provides enough challenges to keep up with the ever-changing environment and a rewarding career while gaining research and teaching experience. Doctor of Engineering in Mechanical Engineering specialty in Plastic Material.

Keen interest to pursue for Research and Development and Product Design.

## Contact Details


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|---|---|
| Address | : No.2A, Jalan Diamond B2/1, Diamond Residence, 43500 Semenyih, Selangor, Malaysia |
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*Members of Institute Engineers of Malaysia*


## Personal Particulars

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|---|---|
| Age | : 43 years |
| Date of Birth | : 20 Feb 1979 |
| Nationality | : Malaysia |
| Gender | : Male |
| Marital Status | : Married |
| IC No. | : 790220-08-5835 |

## Qualification

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|---|---|
| Qualification | : Doctor of Engineering |
| Field of Study | : Engineering (Mechanical) |
| Major | : |
| Institute/University | : University Putra Malaysia |
| Grade | : 3.98 CGPA |
| Graduation Date | : 2019 |

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|---|---|
| Qualification | : - |
| Field of Study | : Engineering (Mechanical) |
| Major | : Automotive |
| Institute/University | : University Technology Petronas (UTP), Malaysia |
| Grade | : Grade B/2nd Class Upper |
| Graduation Date | : 2002 |

| | |
|---|---|
| Qualification | : - |
| Field of Study | : Science & Technology |
| Major | : N/A |
| Institute/University | : Maktab Rendah Sains Mara Jasin (MRSMJ), Malaysia |
| Grade | : Grade A/1st Class |
| Graduation Date | : 1996 |

**Collaboration and Community Projects**

i. Development of biodegradable materials and its life cycle analysis collaboration Projects with UPM together with Prof Sapuan - ~RM100,00
ii. Steelcase Automation research and development – Target by Jan 2022 start - ~RM100,000

**Appointment & Certification**

Professor Adjunct – University Putra Malaysia

Technical Committee for Guidelines on Occupational Safety and Health for Seating at Work, Standing at Work and Working with Video Display Units (VDU's) (2020)

Professional Engineer (PEng.) (BEM) (2011)
EAC Panel Auditor for BEM
Malaysia Plastic Standard Committee
Industry Advisory Panel for UniKL Product Design and Manufacturing
Industry Advisory Panel for University Technology Petronas (UTP)
Industry Advisory Panel for University Tun Hussien Onn Malaysia for Mechanical Engineering
Industry Panel for University Technical Malacca
Mechanical Design Expert
Authorized Safety Engineer (ASE) (2006)
Institute Engineers of Malaysia Main Comittee (2009 - 2013)
Patent filing on "Speaker Duct Fitting" ref S06P5080MY00 (2006)
ProE Advance Modeling and Surfacing (ISDX) (2005)

## Experience

Experience Level : Total 19 Year(s) of Experience

**Employment History**

Company Name : Steelcase Office Solutions (M) Sdn. Bhd
Position Title : DIRECTOR – PRODUCT ENGINEERING ASIA PACIFIC
Position Level : SENIOR MANAGEMENT
Specialization : Engineering - Mechanical/Automotive
Industry : Product Design & Development/ R&D/ Manufacturing
Duration : 2009 – Present

**Job Scopes/ Specification:**

1. Asia Pacific Product Engineer Director for seating product under Global Seating Group & Life Cycle Management, OrangeBox, Furniture and AMQ. Expert in ergonomics for office furniture and involved with BIFMA.
2. Lead all the product and technology innovation strategy in Asia Pacific liaise with Global Chief Engineer.
3. Lead 35 engineers throughout Asia Pacific diverse location e.g. Malaysia, India, China and Hong Kong.
4. Asia Pacific Manufacturing process (e.g. plastic, cold forging, stamping etc.) and Tooling consultant.
5. Expatriate Assignment in Steelcase Innovation Center in Grand Rapids, Michigan for 3 years months under Seating Category and leadership
6. Attached to the High End Seating Group Design. Direct Report to the Steelcase PD&L Seating Group in Grand Rapids, Michigan, US.
7. Research, Design and Development of seating product. Conceive designs, engineering/ design analysis, intent and verification. Maintain technical integrity of the product by sound applications of engineering/ mechanical design principles, creation of engineering/ design specifications, material selection, definition of the engineering/ mechanical design intent and verification activities.
8. Designing seating product using ProE. Advanced level of ProE Modeling, Surfacing, Simulation [mechanism and Mechanica]. Computer aided engineering/ design modeling. Guide creation of and/ or create models for mechanical design/ engineering analysis and other uses. Use engineering process tools for engineering and verification applications.
9. Engineering documentation, verification and records. Create engineering/design content of documentation package and verify accuracy and completeness.
10. Project Support: Support team members and customers. Ensure that goals and objectives are met through effectiveness involvement, contribution and coordination.
11. Functional Support/ Special Assignments: Support department and corporations goals. Ensure that goals and objectives are met through effective involvement and contribution.
12. Quality: Comply with the Steelcase quality system. Ensure that all applicable procedures and standards are followed. Ensure quality results in all deliverables.
13. Self Development/ Network: Define and implement Professional Development plan with management. Self development activities may include, but are not limited to, participation in professional organization (s), networking, educational and certification courses.

14. Supervise the tasks of mechanical designers and lead a technical portion of a project. Positively influence peers. Effectively exercise interpersonal skills.
15. Expert in spring design
16. Expert in steel and plastics parts design.
17. Expert in tooling construction [included Heat & Cool Injection and Double Injection Mold]

Jan 2018 – Now
1. Research, Design and Development NEW concept and innovation for "Float Mesh" (New Technology) for ergonomics and comfort.
2. Develop for Asia Pacific region.

Nov 2014 – 2017 [Series 1 Chair Project]
1. Research, Design and Development
2. Emerging market ergonomics chair
3. Successfully launched Series 1 chair in Asia Pacific in Jan 2018 and the SALES is tremendous above the expectation and forecast.

June 2013 – Present [India Mesh Chair Project]
1. Research, Design and Development
2. 1st Development of India Chair development for Steelcase.
3. The most valuable chair (cheapest) ever made in Steelcase (COGS $84)
4. Developing India supplier and Steelcase India Team.

Oct 2011 – June 2013 [GESTURE Ergonomics Task Chair 300lb]
1. Research, Design and Development of 900i chair mechanism.
2. New concept of ergonomics and control system.
3. Global seating product development.
4. New technology of seating with new 9 pastures
5. Lead engineer for Asia Pacific Region

Feb 2010 – June 2011 [Cobi Torsion Bushing Mechanism Replacement Project]
1. Research and Study feasibility of replacing the torsion bushing mechanism with other type of mechanism that can create energy source e.g. torsion spring, leaf spring, cantilever etc.

July 2010 – July 2012 [Think Chair Spring Mechanism Design – Replacement of Torsion Bushing Mechanism]
1. Research, Design and Development of the Torsion Spring Mechanism to replace torsion bushing mechanism.
2. Involved in conceptual design, project planning, design, development and production.

April 2010 – Dec 2011 [Leap Plus Chair Design – for big-small & big-tall people (500lb)]
1. Research, Design and Development of Leap plus Chair.
2. Involved in conceptual design, project planning, and design only.
3. Involved in ergonomics study for the big-small & big tall people. The size and behavior.

**Achievement at Steelcase**
1. Received recognition from Steelcase CEO for the contribution in GESTURE & India Mesh Chair.
2. Succeed in developing the most valuable chair in Steelcase history (especially in Asia Pacific) which is India Mesh Chair. This is the 1st chair ever made in Steelcase India with 60% local components. Succeed in developing Steelcase India team and supply chain. The cost of the chair is cheaper almost $40 from same chair in Steelcase China (COGS $84)
3. Gesture chair mechanism succeeds in developing globally. This is the first in Steelcase history in fact in furniture industry history chair is developing globally and all the components for chair control in develop in Asia, assemble in Steelcase Manufacturing Malaysia. Succeed in developing all suppliers and supply chain in Asia. Cost achievement 50% cheaper compare to develop in Europe and US. Discovered 9 new pastures of people way of behaving with the chair.
4. Succeed in Leap Plus chair design for 500lb. This is the first in the world to have task chair for 500lb people. This chair has a very good sales and ergonomic response from customer.
5. Succeed in redesign torsion bushing for think chair from on certified in MBDC (Cradle to Cradle) to one of the best story in MBDC Certification (Cradle to Cradle). This torsion bushing redesign is one of the success story in designing for environmental and the story been published in Cradle to Cradle Product Innovation Institute California. Not just this succeed in environmental design but it gave the company value added in product and save cost more than RM400,000 per year. One of the big impact projects.
6. Succeed in developing products, parts and components in Asia with almost 40% cost saving.

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| Company Name | : SONY EMCS (Malaysia) Sdn Bhd |
| Position Title | : SENIOR DESIGN ENGINEER |
| Position Level | : Senior Executive |
| Specialization | : Engineering - Mechanical/Automotive |
| Industry | : Mechanical Design/ R&D/ Manufacturing |
| Duration | : 2004 - 2008 |

**Job Scopes/ Specification:**

1. Responsible in research, design and development LCD TV mechanical parts and TV 3D woofer box.
2. Specialized in designing TV mechanical plastic parts e.g. TV front cabinet, rear cabinet, PWB bracket, terminal bracket and 3D woofer box and TV metal parts e.g. CRT bracket and metal cover.
3. Specialized in TV sound performance especially TV with 3D woofer box (sound tune up)
4. Solving and troubleshooting design problem with Production Engineer, Quality Engineer, Industrial Designer and Mould Maker by 2D and 3D design approach (CAD/CAE).
5. Propose & Research new ideas, processes and sourcing new technologies (new patent and registered it).
6. Control and plan all the product detail cost as well as cost down idea and activity in order to achieve budget cost
7. Monitor the quality and work schedule of suppliers as well as total progress of the new model. Attend plastic injection trial in Malaysia or overseas (Thailand, Vietnam, Taiwan, Japan and Iran)
8. Experience in designing Stamping, Forging, Plastic Injection and Die Casting parts.
9. Collaborate with tool maker for designing the tooling.
10. Responsible to train and upgrade new staff. 8 junior design engineers reported under me
11. Able to work independently

June 2007 – Dec 2008: SONY Head Quarter Shibaura, Japan & M'sia.

1. Involve in World Wide 2008 new model LCD Design.
2. Leader of 08' LCD design and model introduction
3. New Technology introduction to Malaysia; Heat & Cool Injection and Double Mold Injection.

Aug 2006 - May 2007: SONY TV Malaysia Design Center (Model HG29)

1. New Model Design of TV with new concept of 2 visible tweeter, HG29: Designing with 3D software PRO-E
2. Research, Design and Development of the new TV front cabinet, rear cabinet and 3D woofer box to cope with a new concept of visible tweeter
3. Design collaboration with SONY TV USA Design center.

Feb 2006 Aug 2006: SONY TV Malaysia Design Center (Model AW21)

1. New Model Design of TV 3D woofer model for India and GA area (Malaysia, Taiwan, Thailand, Singapore, Middle East etc.) market (affordable version), AW21: Designing with 3D software PRO-E
2. Research, Design and Development of the new woofer with cost down activity but need to ensure that sound performance is good.
3. Sound performance is the best among it class.

Sept 2005 Feb 2006: SONY TV Malaysia Design Center (Model SP29)

1. New Model Design of TV 3D woofer box with highest power output 20W for India, GA area and America Latin market, SP29 with metal speaker grille: Designing with 3D software PRO-E
2. Research, Design and Development of the new woofer with high power output 20W.
3. Sound performance is highly appreciated by the customer.
4. New technology has been introduced and already patented (mechanical fitting concept)
5. Achievements: Mold Modification Cost is low (18%) than the target (<20%)

Mar 2005 Sept 2005: SONY TV Malaysia Design Center (Model HP21)

1. New Model Design of special TV 3D woofer box with built in tweeter speaker together with woofer speaker. Exclusively for India Market, HP21 and this is the hit sell model in India:
2. Research, Design and Development of this model.
3. This model collaborates with SONY Japan designer.
4. Achievements: Hit sales model in India. This model beat SAMSUNG brand for woofer category. Introduced new idea and model cost achieved budget cost target. Mold Modification Cost is low (19%) than the target (20%)

Aug 2004 Mar 2005: SONY TV Malaysia Design Center (Model SW21)

1. New model design of TV 3D woofer box with a new concept of port area location to optimize the sound output performance.

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| Company Name | : Shimano Components Malaysia Sdn. Bhd. |
| Position Title | : R&D Engineer |
| Position Level | : Junior Executive |
| Specialization | : Engineering - Mechanical/Automotive |
| Industry | : Manufacturing / Production |
| Duration | : July 2002 - Feb 2004 |

**Job Scopes/ Specification:**

1. Responsible in design enhancement and redesign current product as a cheaper version.
2. Specialized in designing Crank, Gear and Free Hub product for Mountain Bike Bicycle (MTB).
3. Solving and troubleshooting design problem with Production Engineer, Quality Engineer, Industrial Designer and Mould Maker by 2D and 3D design approach (CAD/CAE).

4. Propose & Research new ideas, processes and sourcing new technologies.
5. Monitor the quality and work schedule of suppliers as well as total progress of the new model.
6. Experience in designing Stamping, Forging, Plastic Injection and Die Casting parts.
7. Established the system & documentation of ISO9001:2000 for clause 7.3: Design and Development.
8. Responsible to train new staff.
9. Able to work independently

July 2002 – Dec 2002:
1. New Model Design:
   - Development of crank (forging) with a new concept of structure for lighter weight and high durability & strength.
   - Design jigs and gauges for this product.

Jan 2003 – Mac 2003: Shimano Incorporation, Sakai, Osaka, Japan
1. New Model Design:
   - Attached to the Shimano Japan R&D project team for new conceptual design of City Bike components, Shimano Power Change Mechanism (SPCM).
   - Has been assigned to design and develop the new crank (die cast) shape for lighter weight, high durability & strength and compatible with SPCM components (First stage).
   - Design jigs and gauges for this product.

April 2003 – July 2003: Shimano Incorporation, Sakai, Osaka, Japan
1. New Model Design:
   - Design and develop 46-34-24T combination of gear with a concept of robust design for SPCM with lighter weight, smooth shifting and high shifting performance (Second stage).
   - Design jigs and gauges for this product.

Sept 2003 – Dec 2003:
1. New Model Design:
   - Development of new Free Hub with new structure to compete with the competitors in term of function and price.
   - Design jigs and gauges for this product.

Nov 2000 – Jun 2001: Petronas Penapisan Melaka Sdn. Bhd.
   - Attached to the Inspection Department and Project Department.
   - Exposed to the non-destructive testing e.g. dye penetrant testing, magnetic particle testing, ultrasonic testing etc.
   - Involved in the pressure vessel and piping construction.

## Skills

(**Proficiency: Advanced -** Highly experienced; **Intermediate -** Familiar with all the basic functionalities; **Beginner -** Just started using or learning the skill)

| Skill | Years | Proficiency |
|---|---|---|
| MS Office | >5 | Advanced |
| Pro/Engineer (Mechanica, ISDX, Simulation) | >5 | Advanced |
| ANSYS 5.4/5.7 | 3 | Intermediate |
| 3D IDEAS (Modeling, Simulation & Drafting) | 3 | Intermediate |
| Cadra | 2 | Intermediate |
| AutoCad | 2 | Intermediate |
| C++ Language | 2 | Beginner |
| MatLab | 1 | Beginner |
| MICES | 1 | Beginner |
| CATIA | 3 | Intermediate |
| STAR CD | 1 | Beginner |

## Languages

(**Proficiency**: 0=**Poor** - 10=**Excellent**)

| Language | Spoken | Written |
|---|---|---|
| English | 10 | 10 |
| Japanese | 1 | 1 |
| Bahasa Malaysia | 10 | 10 |

**Text Resume / Additional Info**

**EDUCATION**

2014 Present PhD Industry, Doctor of Engineering, Mechanical Engineering
University Putra Malaysia (UPM)

1999 2002 B.Eng. (Hons) Mechanical, majoring in Automotive
University Technology Petronas (UTP)
CGPA: 3.29/4.00
Award & Achievement:
- 1 time Deans List Recipient
- 1st place in Final Year Project for Mechanical Engineering Programme

1997 1998 University Entrance Certificate (UEC)
Australian Consortium for Higher Education in Malaysia (ACHEM)
Weighted Average Mark: 79.6/ 100

1995 1996 Maktab Rendah Sains Mara Jasin, Melaka
SPM: Grade 1 with 10 aggregate (6As)
CGPA: 3.35/4.00

1992 1994 Sekolah Tinggi Batu Pahat, Johor
Penilaian Menengah Rendah (PMR): 8As

1990 1991 Sekolah Rendah Montfort Batu Pahat, Johor
UPSR: 3A 1B

**COMPANY SPONSORED PROFESSIONAL TRAINING**

2019-2021: Leadership Training – HUMU, EVOLVE Training, Fit the Leadership
Aug 2002: Small Group Activities (SGA) Training (Shimano Components (M) Sdn Bhd)
Sept 2002: 6 Sigma Yellow Belt Training Programme (Shimano Components (M) Sdn Bhd)
Jan 2003: Edward de Bonos Lateral Thinking Course (Kuala Lumpur)
July 2003: Pattern Seminar by Shimano Japan Pattern Section (Shimano Singapore Pte. Ltd.)
Sept 2003: Computer Aided Engineering (CAE) Seminar and Discussion (Shimano Singapore Pte. Ltd.)
Nov 2003: EDS PLM User Conference- IDEAS NX, Unigraphic NX and Solid Edge (Sunway Lagoon Resort, Kuala Lumpur)
Feb 2004 - 2006: Microsoft Office, Excel and Power Point Advanced Training, 7Habits, Presentation Alive and Leadership Training, Communication Skills
Aug 2006: Authorised Safety Engineer (ASE) Training
Feb 2008: Think Out of Box training
Apr 2009: "How to be a good Designer" Training
Sept 2009: ProE Freeform Surfacing Training

**EXTRA CURRICULAR ACTIVITIES**

1. Committee of Institution Engineers of Malaysia (IEM) Mechanical Technical Division.
2. German Malaysia Institute (GMI) Final Project External Verifier (Dec 2009).
3. University Technical Malaysia Malacca (UTEM) courses and subjects reviewer for Manufacturing Design Department & Industry Advisory Panel (Dec 2008 – Dec 2014).
4. Invitation Speaker for Nottingham University Malaysia Branch for Mechanical Design subject (August 2009).
5. Speakers for various organizations and University for "Engineering as a Career" Talk under Institute of Engineers, Malaysia.
6. Institution of Engineers, Malaysia Mechanical Technical Division committee for Machine Design Competition during IEM Engineering Weeks 19$^{th}$ Mar – 24$^{th}$ Mar 2010.
7. Institution of Engineers, Malaysia Mechanical Technical Division committee for Website maintenance.
8. Department Committee for Team Building, Steelcase.
9. Committee of Mechanical Design Dept Entertainment club and signal committee, SONY EMCS.
10. Treasurer, Shimano Cycling Club, Shimano Components (M) Sdn. Bhd.
11. Member, University Technology Petronas Mechanical Engineering Club.
12. Member, University Technology Petronas Football Club.

13. Secretary, University Technology Petronas Table Tennis Club.
14. President, Engineering Professional and Communication Group, University Technology Petronas.
15. President, Engineering Team Project, University Technology Petronas.
16. Captain, Mara Tiger Football Club.
17. President, Astronomy Club, Maktab Rendah Sains Mara Jasin.
18. Malaysian Student Representative to watch Solar Eclipse in Sabah, Maktab Rendah Sains Mara Jasin.
19. Batu Pahat football player in MSSJ under 16.

**AWARD**

1. 1st place in Final Year Project for Mechanical Engineering Programme, Research and Investigation of flow at intake valve and combustion chamber of the internal combustion engine (ICE) using STAR CD and ProICE.
2. 2nd runner-up for exhibitor and engineering design in the Engineering Design Exhibition at University Technology Petronas.
3. Gold medal in the UTP inter faculty football tournament represent Mechanical Faculty
4. 1st Runner Up of Best Presenter for SONY TV Malaysia Design Center
5. 2 times PATENT AWARD; 1) New concept of TV CRT Bracket 2) New Concept of Speaker Duct Fitting

Membership of Institute Engineer of Malaysia (IEM) as Member
Co Opted Committee of the IEM Mechanical Technical Division

PERSONAL CHARACTER
People describe me as a determined, hard-working, high disciplined, committed to work and has a good sense of humor.