

2017

臺灣航太產業複合材料論壇 Taiwan Aerospace Composites Forum

會議手冊
Conference Program

指導單位  中華民國經濟部

主辦單位  漢翔航空工業股份有限公司

協辦單位  台灣區航太工業同業公會  台灣區複合材料工業同業公會

 臺灣機械工業同業公會  教育部區域產學合作中心-國立高雄應用科技大學



2017年9月22日(五)

時間 議程

08:30-09:00 來賓報到
09:00-09:15 主席致辭：廖榮鑫 董事長 漢翔航空工業股份有限公司
09:15-09:30 貴賓致辭

主題(一)：全球航太產業複材發展趨勢

09:30-11:00 主持人：林南助 總經理 漢翔航空工業股份有限公司
與談人：
◆ Paulo Lage 空中巴士公司機體結構設計專家
◆ Ralph Resnick 美國國防製造和加工國家中心(NCDMM)執行總裁
◆ Guenther Dressler 德國ACE公司材料與製程總負責人
◆ 馬振基 博士 中華民國高分子學會理事長 / 國立清華大學榮譽教授
◆ 吳洵 博士 中華科大航空學院講座教授

11:00-11:20 中場休息
11:20-12:00 專題與談Q&A (一)
12:00-13:00 中午休息

主題(二)：航太產業複合材料之應用

13:00-14:30 主持人：馬葆倫Paul Marks 美國雅奇國際有限公司董事長兼首席執行官
與談人：
◆ Dr. Leslie Jay Cohen 美國HITCO碳複合材料公司資深副總
◆ Serge Luquain 法國Techni-Modul Engineering (TME)公司執行長
◆ 王智永 執行長 永虹先進材料股份有限公司
◆ 梁世昌 協理 台塑台麗朗事業部
◆ Patrice Buisson 美國赫氏公司亞太地區銷售總監

14:30-15:10 專題與談Q&A (二)
15:10-15:25 中場休息

主題(三)：航太產業複材智慧機械、工程及製造

15:25-16:55 主持人：薛富盛 教授 中興大學校長
與談人：
◆ John Hartmann 美國Electroimpact公司副總裁
◆ Philippe Prat 德國KUKA Systems Aerospace執行長兼總裁
◆ Jesus Bravo 西班牙MTorres公司航太部門亞太區主要客戶業務經理
◆ Alexandre Domino 法國CORIOLIS複合材料公司資深銷售工程師
◆ 何保華 副總經理 漢翔航空工業股份有限公司

16:55-17:30 專題與談Q&A (三)
17:30 合影留念 / 賦歸

Friday, September 22, 2017

Time Agenda

- 08:30-09:00 Registration
 09:00-09:15 Opening Remarks: Anson Liao Chairman of AIDC
 09:15-09:30 Guest Address

Session 1: Trends, Opportunities and Forecast in Aerospace Composite Material Market

- 09:30-11:00 Moderator: N. J. Lin President of AIDC
 Speakers:
 ◆ Paulo Lage Structure Design Expert, Engineering (Airframe Business Operational Support), Airbus
 ◆ Ralph Resnick President and Executive Director, NCDMM - National Center for Defense Manufacturing and Machining, U.S.A
 ◆ Guenther Dressler Head of Materials and Processes, ACE
 ◆ Dr. Chen-Chi Ma President of the Society of Polymer, Taiwan/Professor Emeritus, National Tsing Hua University
 ◆ Dr. Peter Wu Chair Professor, College of Aviation, China University of Science and Technology (CUST)

- 11:00-11:20 Break & Refreshments
 11:20-12:00 Panel Discussion 1
 12:00-13:00 Lunch Time

Session 2: Composite Material Application in Aerospace Industry

- 13:00-14:30 Moderator: Paul Marks Chairman and CEO of Argosy International Inc
 Speakers:
 ◆ Dr. Leslie Jay Cohen Senior VP, HITCO Carbon Composites
 ◆ Serge Luquain CEO of Techni-Modul Engineering (TME)
 ◆ Ben Wang CEO of UHT Unitech Co., Ltd.
 ◆ Tony Liang Assistant Vice President, Formosa Plastics Corporation Tairylan Division
 ◆ Patrice Buisson Sales Director Asia Pacific, Hexcel Corporation

- 14:30-15:10 Panel Discussion 2
 15:10-15:25 Break & Refreshments

Session 3: Composite Material Engineering & Manufacturing in Aerospace Industry, Automation Machine or Equipment for Composite Material in Aerospace Industry

- 15:25-16:55 Moderator: Fuh-Sheng Shieu President of National Chung Hsing University
 Speakers:
 ◆ John Hartmann Vice President, ElectroImpact
 ◆ Philippe Prat CEO/President, KUKA Systems Aerospace
 ◆ Jesus Bravo Key Account Manager- Alsa Pacific Area, Aeronautics Division, MTorres Group
 ◆ Alexandre Domino Sales Engineer, Coriolis Composites
 ◆ Paul Ho Senior Vice President, AIDC

- 16:55-17:30 Panel Discussion 3
 17:30 Group Photo / Closing Remarks



廖榮鑫

漢翔公司董事長

論壇主席

廖董事長是空軍官校六十七年班畢業，曾任總統府戰略顧問、副參謀總長兼執行官、國防部常務次長、飛彈指揮部指揮官、空軍防砲部指揮官、國防部整評室主任、空軍官校校長、空軍499聯隊長。從軍期間素有「最愛鳥的戰鬥機飛行員」稱號，飛行和賞鳥皆超過30年，從飛行建立了危機意識和風險管理的概念，賞鳥更讓他看到航太產業之趨勢—「鳥類和人類都在追求減重和讓飛行更有效率」。為了飛行，鳥類的骨頭演進為中空化，漢翔公司也追隨飛機的減重趨勢，投入成本到複合材料領域，近年來先後籌建二座複材廠，均是為未來的航太複材業務積極準備。漢翔長期關注全球最大的兩家飛機製造商Airbus及Boeing的新飛機設計、製造趨勢，均大量採用複合材料，如Airbus A350及Boeing 787機身結構分別採用了53%及50%的複合材料，此全球航太複合材料發展趨勢，與漢翔公司的複合材料業務發展策略完全相符。

廖董事長也於2016年催生臺灣航太產業「A-Team4.0聯盟」，整合原物料供應、智慧機械、生產製造及物流運輸等產業廠商，盼望能強化供應鏈體系，推動發展我國航空工業。除藉著高教機自研自製的機會帶著航太供應鏈一起練兵外，更不遺餘力地邀各個領域的專家，免費為臺灣航太產業的新進企業做教育訓練、奠定基礎，無私地分享產業經驗、國際趨勢與新知，都是為了將人才及技術留在臺灣，向世界級的航太供應鏈聚落邁進，以因應未來可能遭遇的衝擊。

秉著同樣的理念，漢翔公司期藉舉辦第一屆「臺灣航太產業複合材料論壇」，推動臺灣複材技術的發展，本次論壇難能可貴地邀請到許多國際頂尖複材製造及設備領域的專家來分享全球的航太複材趨勢及技術，期盼透過此次的交流互動，帶給國內原物料、複材製造及智慧機械業者不同的視野，與全球航太複材市場發展接軌。



Anson Liao

Chairman of AIDC

Chairman

Chairman Liao graduated from the Air Force Academy in 1978 and has a distinguished and rich military career including Military Strategy Advisor to the President of the ROC; Vice Chief of General Staff of the Ministry of National Defense (MND); Administrative Deputy Minister of MND; Commander, Air Defence Missile Command, General Staff Headquarters of MND; Commander, Air Defense Artillery Command; Director General, Integrated Assessment Office of MND; Superintendent of Air Force Academy; and Wing Commander of the 499th Tactical Fighter Wing.

Known as a fighter jet pilot who was the bird lover while serving in the military, Anson Liao has more than 30 years experience in both flying and bird watching. He established the concept of awareness crisis and risk management from his extensive flight experience. In addition, he realized the trend of the Aerospace industry through bird watching. "Both bird and humankind have been pursuing efficient flying by lightening weight." The bird evolved its skeleton into hollow structures; AIDC follows the trend of weight reduction and invests in composites development by building two composites manufacturing sites. AIDC has been actively preparing and pursuing aerospace composites business.

AIDC has closely observed the two major international airplane manufacturers, Airbus and Boeing, for their new airplane design and their trends in manufacturing. Furthermore, both of them utilize substantial amount of composites. Take the Airbus A350 and the Boeing 787 for examples; they employ 53% and 50% of composites respectively on the fuselage. Therefore, the development in composites business strategy of AIDC is consistent with the trend of globe aerospace composites development.

Through the efforts of Chairman Anson Liao, the Taiwan Aerospace Industry A-Team 4.0 League was created in 2016, integrating Taiwan suppliers of raw material, intelligent machinery, production, logistics, etc. to strengthen Taiwan's domestic aerospace industry into an integrated supply chain and to internationally promote Taiwan's aerospace industry. By means of R&D for the Advanced Jet Trainer, AIDC brings opportunities for supply chain members to participate together and has actively invited experts from different fields to provide free training programs for start-up enterprises in order to reinforce the foundation of aerospace industry and share relevant industrial experience as well as providing information of latest international trends. Important objectives of the foregoing activities are to retain talented people and techniques in Taiwan and to guide the Taiwan aerospace supply chain toward worldwide standards in order to prepare for the potential of unforeseen challenges in the future.

With that belief in mind, AIDC is conducting the first "Taiwan Aerospace Composites Forum" to promote composites technology development. Having invited many experts from the top international composites manufacturers and equipment field to this event to share their knowledge and expertise in global composites, trends and technologies. AIDC expects to bring different perspectives to domestic enterprises and to connect Taiwan aerospace supply chain to the global composites markets.



林南助

漢翔公司總經理

主持人

林南助先生今年7月5日經由漢翔航空工業公司董事會任命為漢翔公司總經理。漢翔公司為台灣的飛機製造航太業龍頭公司，以自行研發生產中華民國空軍現役之經國號 IDF 戰機聞名。就任現職前，林總經理擔任漢翔公司民用業務與行政管理副總經理，負責督導人力資源處、財務處、總務處、民用業務處及民用飛機專案處等部門。

林總經理在漢翔多年且豐厚的管理及領導經驗，還包括他在飛機航電領域、業務開發和企業流程改造方面擁有多年管理經驗，尤具有航電系統整合(從設計、研發至製造、測試、性能提升和維修)、武器(航太)系統改良、企業改造工程等之專業。林總經理畢業於台灣淡江大學航空工程學系和靜宜大學企業管理碩士(EMBA)。



Nan-Juh (N.J.) Lin

President of AIDC

Moderator

The Board of Directors of Aerospace Industrial Development Corporation (AIDC) located in Taichung, Taiwan named N. J. Lin as President of the company which became effective on July 5th, 2017. AIDC is the leading aircraft manufacturer and aerospace company in Taiwan and surrounding region and is renowned for its self-developed and manufactured Indigenous Defense Fighter (IDF) operated by the Taiwan Air Force. In his previous role President Lin held the position of Senior Vice President overseeing AIDC departments of Human Resources, Finance, General Affairs, Commercial Business Development, and Commercial Aircraft Programs.

President Lin brings to his new role extensive background in leadership and general management skills including, expertise and experience in avionics systems integration, ranging from avionics design and development to manufacturing, testing, upgrade and maintenance, as well as aerospace weaponry, systems improvement, and enterprise re-engineering. President Lin holds an EMBA degree from Providence University and a Bachelor's degree in Aeronautical Engineering from Tamkang University in Taiwan.



Paulo Lage

空中巴士公司機體結構
設計專家

與談人

擔任空中巴士機體工程的領袖多年，Paulo協助提出A380、A400M、A32X Sharklet、A330NEO、A350XWB多種機型設計解決方案，製程因而得到改善，更減少飛機組裝周期及所需認證。Paulo在空巴複材專業社群中相當活躍，致力研發此領域尖端技術，以達到最佳設計方法及隨之而來的飛機卓越性能。身為英國皇家航太協會一員且受證為國際工程師，Paulo有多年專利經驗，且為多種專精領域的作家/評論家，如彈性體與聚合物、共擠與成型、熱塑複合零件及疊層製造，涵蓋金屬與複合材料。

在世界各地複材技術論壇的講台上也能時常看到Paulo的身影。



Paulo Lage

Structure Design Expert,
Engineering (Airframe Business
Operational Support), Airbus

Speaker

As an expert leader in the Airbus Airframe Engineering, during the course of many years, helped in delivering design solutions on the A380, A400M, A32X Sharklet / A330NEO and A350XWB, which resulted in process improvements reducing both the aircraft assembly cycle time and certification.

Paulo Lage is an active member of the Airbus composite Expert community, striving to further develop advanced techniques in this field, leading to optimized design solutions and inherent superior aircraft performance.

He is a Member of the Royal Aeronautical Society and a Chartered Engineer with many years of experience contributing to patents, as an author and reviewer in varied specialist fields such as: elastomers and polymers, co-extruded and moulded, thermos-set and thermos-plastic structural composite components and additive manufacturing, covering both metals and polymers.

He is a frequent speaker at composite technology conferences around the world.



Ralph Resnick

美國國防製造和
加工國家中心(NCDMM)
執行總裁

與談人

Resnick先生於2008年9月加入NCDMM擔任副總裁、首席技術官兼企業發展總監，擁有30多年的製造經驗，並於2011年5月起擔任總裁兼執行董事。2012年，他領導NCDMM獲得競爭激烈的國家積層製造創新研究所合約。獲得授予後，他也擔任了該研究所的代理總監，直到2013年2月任命一名新總監為止。

在加入NCDMM之前，Resnick先生擔任ExOne公司和Extrude Hone公司的首席技術官，他是建立兩個組織在先進製造領域領導地位的主要貢獻者，其中包括積層製造(3D列印)、製程研究和技術轉移至世界工廠產線。他在生產製程和計量方面擁有多項專利。



Ralph Resnick

President and Executive
Director, NCDMM

Speaker

Mr. Resnick joined NCDMM in September 2008 as Vice President, Chief Technology Officer and Director Corporate Development with more than 30 years of manufacturing experience. He became President and Executive Director in May 2011.

In 2012, he led NCDMM to winning the competitive National Additive Manufacturing Innovation Institute contract. Upon award, he also assumed the role of Acting Director of the Institute until February 2013 upon appointing a new director.

Prior to joining NCDMM, Mr. Resnick served as Chief Technology Officer for both The ExOne Company and Extrude Hone Corporation where he was a major contributor in establishing both organizations as leaders in advanced manufacturing, including such areas as additive manufacturing, process research, and technology transition to the world's factory floors. He holds several patents in manufacturing processes and metrology.



Guenther Dressler

德國ACE公司材料與製程
總負責人

與談人

Dressler先生擁有德國斯圖加特大學碩士學歷，曾於ENERCON、Zeppelin、Composite Technology Center、Airbus Stade等知名企業服務過，是複材製程開發的專家，目前在ACE公司擔任材料製程的團隊領導人，也在DHBW大學擔任複材生產製程講師。

ACE公司專注於使用纖維複合材料實現輕型結構，在航空工業的輕型結構以及汽車和機械工程應用方面擁有30年的連續和全面的開發經驗。



Guenther Dressler

Head of Materials and
Processes, Advanced
Composite Engineering
GmbH (ACE)

Speaker

Mr. Dressler holds a Master's Degree from the University of Stuttgart. He worked as a composites expert in ENERCON, Zeppelin, Composite Technology Center, Airbus Stade, etc., and is currently the Head of Materials and Processes in ACE. He's also a lecturer for Composite Manufacturing Processes at Baden-Wuerttemberg Cooperative State University.

ACE GmbH specialize in the realization of lightweight structures using fibre composite material, have 30 years of continuous and comprehensive experience in the development of lightweight structures for the aerospace industry, as well as automotive and mechanical engineering applications.



馬振基 博士

中華民國高分子學會理事長/
國立清華大學榮譽教授

與談人

目前擔任中華民國高分子學會理事長與國立清華大學榮譽教授，曾任清華大學特聘講座教授及教育部國家講座主持人，馬振基博士於一九七二年負笈美國，獲博士學位後任職於美國三家化學及石油公司從事研發工作。一九八四年自美返國任教於國立清華大學，即積極投入教學、研究，諮詢顧問與產業服務。他長期投入先進高分子材料 (Advanced Polymer Materials) 及環境與能源科技之基礎研究，如高分子物性、化性之探討，複合材料製程、檢測，奈米材料之分散、改質、官能基化及燃料電池特性研究。

馬博士在高性能高分子複合材料，奈米、能源、環境材料方面之研究之成果已發表國際期刊論文約三百五十篇，國際會議論文兩百篇。除致力於學術研究以提昇研發水準，馬博士更同時兼顧持續創新發明，保護智慧財產權，所獲得之國內外專利約一百餘件，與高分子材料（塑膠、橡膠、複合材料、奈米材料、能源材料）有關，並編撰了15本聚合物、複材、奈米材料及能源書籍。其研發成果與發明已移轉至中科院、工研院及業界，貢獻良多。



Dr. Chen-Chi Ma

President of the
Society of Polymer, Taiwan /
Professor Emeritus,
National Tsing Hua University

Speaker

Dr. Chen-Chi Ma is the President of the Society of Polymer, Taiwan, and is the Professor Emeritus, and was the Distinguished Chair Professor of National Tsing Hua University and was the National Chair Professor, Ministry of Education, R.O.C. He holds several degrees in chemical engineering, including bachelor from National Cheng Kung University, Master and Ph.D. from North Carolina State University. Then he worked for Monsanto Co., Lord Corp. and Phillips petroleum Co. as senior research engineer from 1977-1984. Since 1986, he served National Tsing Hua University, established the polymer composites processing, eco-materials and nanocomposite laboratories. He is a pioneering researcher in the field of advanced polymer composite, nanocomposite materials, and energy related materials.

He has published more than 350 International Journal Papers and more than 200 International Conference Papers, edited 15 books in Polymer, Composites, Nanomaterials and Energy and was granted more than 100 Taiwan, U.S., Japan, U.K., etc. patents. The technologies he developed have made a great contribution and transferred to research institutes as well as private sectors for industrial applications.



吳洵 博士

中華科大航空學院講座教授

與談人

吳洵博士現為中華科技大學航空學院航空機械系講座教授，是中華科大發展航空應用研發之關鍵人才，負責宏觀策略之擬定。吳教授曾任職於美國波音航太集團最高技術主管(Senior Fellow)，Spirit Aerosystems副總裁兼首席科學家(VP. & Chief Scientist)，在業界素有「科技先鋒-華人之光」之稱，他創新研發許多新技術，其對航空業界貢獻相當傑出。

除了擔任Spirit Aerosystems要職，亦曾在密蘇里大學堪薩斯分校，堪薩斯州立大學兼任教職，在美國、大陸獲獎無數，並於2004年當選全球著名之英國皇家航空學院院士(華人獲此殊榮非常稀少)，2006年榮獲美國中國工程師學會頒發「亞裔年度工程師獎」，以表彰其對美國航太工業之卓越貢獻。2007-2012年當選國際先進材料工程學會(SAMPE)中西部分會主席。2010年當選國際先進材料工程學會院士(SAMPE Fellow)。



Dr. Peter Wu

Chair Professor,
College of Aviation,
China University of Science
and Technology (CUST)

Speaker

Dr. Wu is served as Chair Professor at College of Aviation, China University of Science and Technology August 2013. He served as Vice President / Chief Scientist for Spirit Aerosystems, Inc. upon the divestiture of the Boeing Commercial Airplanes Wichita Division in June 2005 where he had served as a Boeing Senior Technical Fellow since 2001. While with the Boeing Commercial Airplanes, Wichita Division, Dr. Wu provided leadership to the Boeing corporate-wide Technical Fellowship Programs. Dr. Wu shared information with Boeing's national and international partners by working as Boeing technical representative, lecturing and presenting research papers to the industry. Dr. Wu's work with corrosion prevention on aircraft, and environmentally safer processes has led to advancements in manufacturing.

Active in technical communities, he has served as conference chairman, session chairman, and guest speaker for international meetings such as AIA, SAMPE, and International Positron Association. He has established an industry-wide technical network for promoting advanced manufacturing processes. In addition, Dr. Wu served as the Boeing External Affiliation focal for American Institute of Chemical Engineering (AIChE). Dr. Wu was honored as Fellow at the Royal Aeronautical Society in 2004. He was also honored as Fellow at the Society of Advanced Materials and Process Engineering in 2011.



馬葆倫

美國雅奇國際有限公司
董事長兼首席執行官

主持人

馬先生是雅奇國際有限公司的董事長，在雅奇全球的六個分支機構以及合資企業(西安雅西複合材料有限公司)任董事長，在雅奇豐利實業有限公司任董事會成員。馬先生是上海美國商會的主要成員，商會出口合規工作組的聯合主席，同時也是先進材料和工藝技術協會的成員，為下一代材料科學家和工程專家提供教育支持。

作為國際商用飛機複合材料應用論壇的創辦人之一，馬先生受中國航空學會之邀，經常在論壇上主持。馬先生是貝茨學院董事會成員，貝茨學院位於美國緬因州劉易斯頓，是國家公認的以人文科學和自然科學見長的名校。



Paul Marks

Executive Chairman and CEO,
Argosy International Inc.

Moderator

Mr. Marks is chairman of the boards of Argosy International Inc. and its six global subsidiaries as well as Argosy's joint venture, Argosy XAC Composite Materials Ltd., and a member of the board of directors of Argosy Fung Lee Industrial Company, Ltd. Mr. Marks is also a member of the American Chamber of Commerce, Shanghai, where he is co-chairperson of the Chamber's Export Compliance Working Group. He is a member of SAMPE (Society for the Advancement of Material and Process Engineering) and on the boards of SAMPE China as well as the SAMPE Foundation which supports the educational needs of the next generation of material scientists and engineers.

Mr. Marks is a founding member of and frequently serves as a session chairman of the "International Forum on Composite Material Applications for Large Commercial Aircraft" sponsored by the Chinese Society of Aeronautics and Astronautics. Mr. Marks is also a trustee of Bates College, a coeducational, nationally ranked and recognized college of the liberal arts and sciences in Lewiston, Maine.



Dr. Leslie Jay Cohen

美國HITCO碳複合材料公司
資深副總

與談人

Cohen 博士在2001年時加入HITCO，在這之前他於麥克唐納-道格拉斯公司(簡稱麥道)服務31年，擔任技術營運及事業發展負責人。身為資深總監，他主導麥道於俄羅斯的全面商務拓展，並在尖端複材設計與發展一刊中發表了50多篇論文。

身兼講師、俄羅斯科學院海外會員、先進材料和工藝技術協會院士，並獲頒蘇聯科學科技金獎及複材製造Judd Hall獎，也是先進材料和工藝技術協會相當有聲望的George Lubin獎受獎人。Cohen擁有卡內基美隆大學學士、碩士、博士學位及以色列理工學院傅爾布萊特博士，專攻結構及材料。



Dr. Leslie Jay Cohen

Senior Vice President,
New Business Development &
Strategic Technology
HITCO Carbon Composites

Speaker

Dr. Cohen joined HITCO in 2001. He served for 31 years at McDonnell Douglas where he held positions of increasing responsibility in Technology Operations and Business Development. As a Senior Director, he directed all Business Development for MDAC in the Russian Federation. He has published over 50 papers on Advanced Composite design and development, is a lecturer in Advanced Composites and has been awarded the USSR Gold Medal for Science and Technology, and a Foreign member of the Russian Academy of Sciences, Judd Hall Award for Manufacturing of Composites and SAMPE Fellow.

He is a recipient of the prestigious George Lubin Award for excellence in composites from SAMPE. He holds B.S., M.S., and Ph D. degrees from Carnegie Mellon University, and a Fulbright Post Doctoral at the Technion Israel Institute of Technology specializing in Structures and Materials.



Serge Luquain

法國TME公司執行長

與談人

1986年，機械工程師Serge Luquain創立了Ordimoule，專精於模具設計及製造，此公司快速轉向至複材製程技術。1996年，他成立Techni-Modul，擅長於複材市場中的特殊模具機器之設計及製造。

2008年Techni Modul Engineering在Ordimoule及Techni-Modul兩公司合併下誕生，並成為複材零件生產設備設計及實現此領域統包方案的指標，而公司的強項深植於其初始原則：創新、效率、成本效益、優化、注重品質及準時交運。



Serge Luquain

CEO of TECHN
MODUL ENGINEERING S.A. (TME)

Speaker

In 1986, Serge Luquain, mechanical engineer, established Ordimoule, specialized in the design and manufacture of molds. This company has rapidly been oriented to the processing technologies of composite materials. In 1996, he founded Techni-Modul, specialized in the design and manufacture of special molding machines for the composite market.

Techni Modul Engineering was born in 2008 from the merger of these two companies and became a benchmark among the world leaders in the field of industrial turn-key solutions for the design and realization of composite parts production equipment. The strength of the company is rooted in its initial principles: be innovative, be efficient, be cost-effective, optimize, respect quality norms and deliver on time.



王智永

永虹先進材料股份有限公司執行長

與談人

2007年王博士畢業於臺灣國立清華大學材料工程，而後進入臺灣工研院作為研究員，其間開發了碳纖維超高溫石墨化技術，爾後成立永虹科技公司，運用他在高性能碳纖維、複合材料、微波工程領域的專業，致力發展具價格競爭優勢的中高階碳纖維。

王智永現任永虹先進材料(股)執行長及中華民國尖端材料科技協會第十屆理事，至今發表國內外期刊論文6篇，並取得國內外專利24件。



Ben Wang

CEO of UHT Unitech Co., Ltd.

Speaker

Holding Ph.D. degree of Material Science and Engineering from National Tsing Hua University, Ben Wang served as researcher in Industrial Technology Research Institute after graduation during which he developed microwave ultra high temperature graphitization (abbreviated as MW-UHT).

Then he founded UHT Unitech Co. Ltd., making use of his specialty in high performance carbon fiber, composites and microwave engineering to develop price competitive high-end carbon fiber. Currently, Ben Wang is the CEO of UHT Unitech Co., Ltd. and the tenth Director of SAMPE Taiwan. He has published 6 journals and obtained 24 patents domestically and internationally.



梁世昌

台塑台麗朗事業部協理

與談人

自1995年進入台塑後，在集團內曾歷任專業設備保養工程師、課長、副廠長及生產廠長之職，並有工廠擴建、市場推廣等經驗。目前除為台塑公司台麗朗部經營主管負責麥寮廠區之外，並負責台塑集團內碳纖維產品生產、研發及市場拓展等相關事務。

已成功推廣台塑碳纖維應用於包括汽車、風電等歐美專業市場及應用領域。



Tony Liang

Assistant Vice President,
Formosa Plastics Corporation
Tairylan Division

Speaker

Mr. Liang joined Formosa Plastics Corporation in 1995 and has served as the maintenance engineer of the professional equipment, section manager, assistant plant manager and plant manager in the group. He has extensive experience in factory scale-up, marketing and etc.

At present, he is in charge of Mai-Liao plant, carbon fiber production, R&D, marketing and etc. Under his leadership, Tairyfil carbon fiber is used in automotive and wind power in Europe and USA successfully.



Patrice Buisson

美國赫氏公司亞太地區
銷售總監

與談人

Buisson先生引領25人團隊為亞太地區客戶服務，除了決定Hexcel於亞太地區發展策略，他更結合Hexcel研究、技術、行銷部門，了解客戶對於未來專案及新開發案的需求。Patrice自2012年便進入位於法國圖盧茲Hexcel並擔任空中巴士專案指揮。

在進入Hexcel之前，Buisson先生是Henkel Aerospace的全球業務行銷副總，擁有29年複材產品的相關經驗，且當中21年專精於航太複材。



Patrice Buisson

Sales Director Asia Pacific,
Hexcel Corporation

Speaker

Mr. Buisson leads a team of 25 people across Asia Pacific to support customers in the region. In addition to defining Hexcel strategy for Asia Pacific, Patrice liaises with Hexcel's Research, Technology and Marketing departments, understanding customers' needs and requirements for future programs and participating in new developments. Patrice joined Hexcel in 2012 as Airbus Program Director based in Toulouse.

Prior to joining Hexcel, Mr. Buisson was VP of Global Sales & Marketing with Henkel Aerospace and has 29 years of experience in Composites materials products with specifically 21 years in Aerospace.



薛富盛

國立中興大學校長

主持人

美國康乃爾大學材料科學與工程學博士。現任國立中興大學校長、大學入學考試中心基金會董事長、漢翔航空工業(股)公司董事、工研院董事、台灣中部科學園區產學訓協會理事長。歷任政府、組織等二十多項專業職務。

累計發表SCI期刊論文148篇，專書及專書論文7本，發明專利16件，並曾獲得許多國內外學術獎項，包含英國國際工程與科技學會、英國材料與礦冶學會、澳洲能源學會會士及美國康乃爾大學傑出校友等榮譽。



Fuh-Sheng Shieu

President of National
Chung Hsing University

Moderator

Dr. Fuh-Sheng Shieu earned a Ph.D. in Materials Science & Engineering from Cornell University in 1990. He serves as the President of National Chung Hsing University, the Chairman of the Foundation of College Entrance Examination Center, a member of the Board of Directors for the Aerospace Industrial Development Corporation, a member of the Board of Directors for the Industrial Technology Research Institute, and the President of the Academia-Industry Consortium for Central Taiwan Science Park.

He has published 148 papers in SCI journals, written 7 books, and patented 6 inventions. He has been recognized as a fellow at the Institute of Engineering and Technology (IET), the Institute of Materials, Minerals and Mining (IOM3), as well as the Australian Institute of Energy (AIE). He has also won the Distinguished Alumni Award of MS&E, Cornell University.



John Hartmann

美國Electroimpact 公司副總裁

與談人

Hartmann先生自1987年便著手於飛機組裝領域，他是Electroimpact元老之一且現任副總一職。他早期參與低壓電磁引力系統的工作成果使得波音及空中巴士在主要飛機結構組裝採用此技術。

起初主要接觸成形技術及設備，Hartmann先生的工作領域於1990中期時延伸至自動化工具及為了大型飛機零件自動化組裝的大規模系統整合計畫，現今則是持續發展翼盒結構及機身組裝的自動化，還有改善傳統垂直關節型多軸機械手臂，以滿足航空組裝需求。



John Hartmann

Vice President, Electroimpact

Speaker

Mr. Hartmann has been working in the field of aircraft assembly since 1987. He is one of the early members of Electroimpact, Inc., where he currently serves as Vice President. His early work in the area on the Low Voltage Electromagnetic Riveting Systems helped lead to the adoption of this technology for major airframe assembly both at Boeing and Airbus. While initially involved primarily with forming technology and equipment, Mr. Hartmann's work expanded in the mid 1990s into automated tooling and large-scale system integration projects directed primarily for automated assembly of large aircraft components.

His current work ranges from continued developments in the automation of structural wing box and fuselage assemblies to the enhancement of conventional articulated robots to meet aerospace assembly requirements.



Philippe Prat

德國KUKA公司執行長兼總裁

與談人

Prat先生從西門子公司起家，在達梭航空機器人學研究及技術開發中心擔任專案經理12年，並在Alema Automation航太事業發展擔任技術及銷售總監15年；過去3年間任職於KSAF。

ALEMA Automation 被KUKA SYSTEMS AERSPACE收購，主要領域為自動化組裝控制的機械製程設計及發展，經過10年開發，ALEMA Automation是飛機結構機械組裝的領頭羊，在歐洲區域為第一階及代工廠商，甚至廣及北美、巴西及中國。



Philippe Prat

CEO/President,
KUKA Systems Aerospace

Speaker

Mr. Prat started to work with Siemens and then Dassault Aviation, where he served as project manager for 12 years at R&T development Center related to Robotics(CTRL). Mr. Prat work for 15 years at Alema Automation first as aerospace business development technical director and sales director. Work for the past 3 years at KSAF.

ALEMA Automation which becomes KUKA SYSTEMS AERSPACE main activity is the design and the development of robotized cells for automated assembly and control. After 10 years of development, ALEMA Automation is one of the leaders on aircraft structure robotized assembly, working in Europe for tiers ones and OEM but also in North America Brazil and China.



Jesus Bravo

西班牙MTorres公司
航太部門亞太區主要客戶
業務經理

與談人

於2004年進入MTorres Group，Jesus Bravo現職航空小組的主要客戶業務經理已四年多，掌管亞太區域，並負責此區航太銷售的發展及執行。踏入此專業領域逾25年，Jesus Bravo也曾於別家公司擔任銷售總監，他擁有西班牙巴斯克大學的工學碩士及高階管理碩士學位。



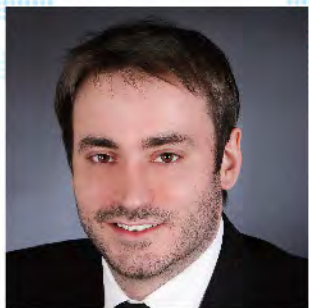
Jesus Bravo

Key Account Manager
Asia Pacific Area,
Aeronautics Division
MTorres Group

Speaker

Mr. Jesus Bravo is Key Account Manager of the Aeronautics Division at MTorres Group in charge of the Asia Pacific Area. He leads the development and implementation of MTorres Aerospace Division sales in Asia Pacific Area.

Jesus started in the company in 2004, the last four years in the current position. During more than 25 years as professional he has also occupied the position of sales director in other companies. He holds a M.Sc. in Engineering by the University of Basque Country (Spain) and an Executive MBA.



Alexandre Domino

法國CORIOLIS 複合材料公司
資深銷售工程師

與談人

Domino先生擔任亞洲地區航太產業銷售工程師已有超過8年的經驗，參與了多數中國航空計畫的技術銷售。

CORIOLIS公司是實施複合材料的專家，致力於開發、製造及銷售採用標準6軸機器人進行纖維疊層的自動化設備，可以在所有方向和複雜的幾何表面上疊層連續或不連續的纖維。



Alexandre Domino

Sales Engineer,
Coriolis Composites

Speaker

Being Sales Engineer with more than 8 years' experience of the Asian aerospace industry, Mr. Domino engaged most of the different Chinese aviation programs through the technology sold.

Coriolis Composites is a specialist in the implementation of composite materials which develops, makes and markets robotic cells for fiber placement using a standard 6 axis robot enabling the laying of continuous or discontinuous fibers, in all directions and on complex geometrical surfaces.



何保華

漢翔公司副總經理

與談人

何保華先生於2015年11月被任命為副總經理，負責製造業務，包括機體結構和發動機。在此之前曾擔任發事處處長兩年，為多家國際發動機大廠提供發動機零組件。他在漢翔公司服務的38年期間所擔任的其他職位包括：品保處處長、生產處副處長、生產工程組組長。

除上述之外，何副總也曾擔任漢翔公司兩大合資案的管理職位：國際渦輪發動機公司副董事長兩年半，該公司是漢翔與Honeywell公司的合資企業，以發動機生產和銷售為主；另外，他曾被派往捷克布拉格工作擔任IBIS航太公司副總三年，該機構是漢翔與Aero Vodochody為了新機研發合資成立。



Paul Ho

Senior Vice President of AIDC

Speaker

Mr. Ho was appointed as Senior Vice President in November 2015. In this capacity he is in charge of the manufacturing operations which include both aircraft structures and engines.

Prior to this assignment, Paul served as Vice President and General Manager of AIDC's Aero Engine Factory for two years, providing engine parts and components to several leading international engine companies. Other positions he held during his 38 years career at AIDC included; Director of Quality Assurance for one and a half years, Deputy Director of Manufacturing for eight and a half years and Senior Manager of Production Engineering for five years.

In addition to the foregoing, Paul also accepted management responsibilities on two major programs of AIDC. He served as Vice Chairman of the International Turbine Engine Company, a joint venture between AIDC and Honeywell Aerospace for two and a half years; and he was assigned to work at Prague, Czech Republic for three years as Vice President of IBIS Aerospace, a joint venture between AIDC and Aero Vodochody for new commercial airplane development.