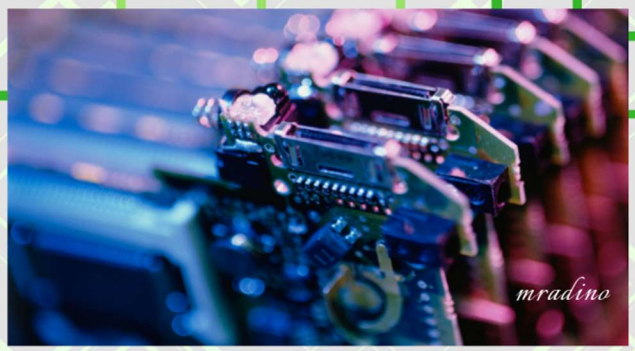
ASEAN FEDERATION OF GLASS MANUFACTURERS

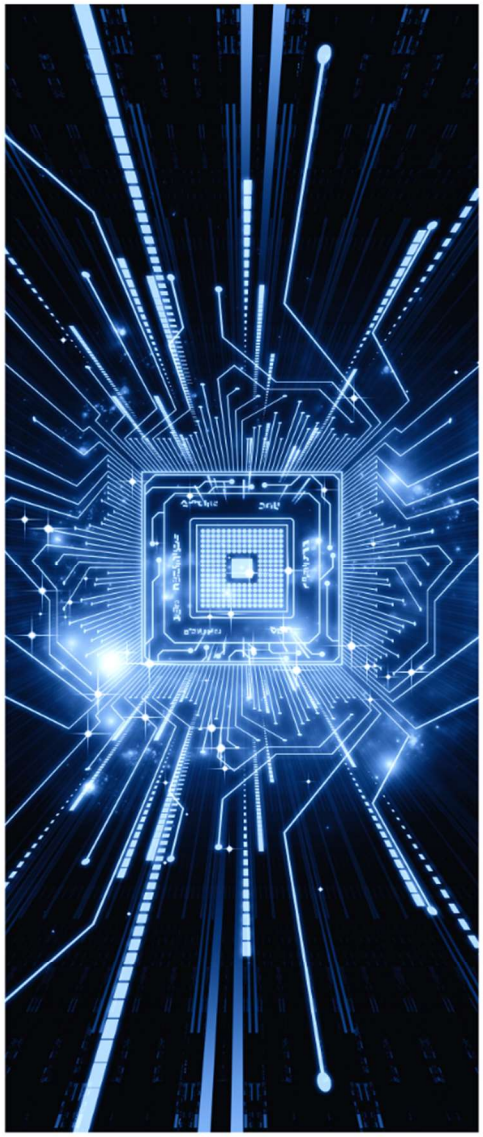
43rd ASEAN GLASS CONFERENCE

"GLASS: INSPIRING NEW FRONTIERS OF DEVELOPMENT"

October 14-17, 2019

SHANGRI-LA'S MACTAN RESORT & SPA
CEBU PHILIPPINES





AFGM
ASEAN FEDERATION OF GLASS MANUFACTURERS

43rd ASEAN GLASS Conference

TECHNICAL SESSION

"Glass: Inspiring New Frontiers of Development"
October 16, 2019

Shangri-La's Mactan Resort and Spa, Cebu Philippines

ASEAN FEDERATION OF GLASS MANUFACTURERS

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TECHNICAL SESSION

"GLASS: INSPIRING NEW FRONTIERS OF DEVELOPMENT"

OCTOBER 16, 2019

MACTAN BALLROOM

SHANGRI-LA'S MACTAN RESORT AND SPA

CEBU, PHILIPPINES

43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION PROGRAMME

Time	Programme	Lead
08:00	Registration	Commitee
Program Proper	Welcome Remarks/Formal Opening	Mr. **Gilbert S. Alvarez** (Conference Chairman)
TECHNICAL SEMINARS		
09:00 – 09:30	Ametek Land & Simpson Combustion and Energy	Mr. **Neil Simpson** (Independent Consultant)
09:30 – 10:00	PaneraTech Inc.	Mr. **Fred Aker** (VP, Sales & Marketing)
10:00 – 10:30	Hotwork International Inc.	Mr. **Benjamin Koster** (Chief Executive Officer)
10:30 – 10:45	Morning Snacks & Coffee Break	
10:45 – 11:15	XPAR Vision B.V.	Mr. **Paul Schreuders** (Chief Executive Officer)
11:15 – 11:45	AGC Ceramics Co., Ltd	Mr. **Shinji Yamamura** (GM,Glass Eng'g. Center)
12:00 – 01:00	Lunch Break and Video Presentation by the Sponsor	
01:15 – 01:45	The Linde Group	Mr. **Victor Kurniawan** (Senior Expert)
01:45 – 02:15	Horn Glass Industries AG	Mr. **Lars Biennek** (Head of Technology)
02:15 – 02:45	Vertech'	Mr. **Ulas Topal** (Chief Executive Officer)
02:45 – 03:15	Tiama	Mr. **Romain Pioch** (Sales Area Manager)
03:15 – 03:30	Afternoon Snacks & Coffee Break	
03:30 – 04:00	Awarding of Certificates and Plaques	Master of Ceremony
	Master of Ceremony:	Messrs. **Edwin E. Tan** & **Andrew T. Natividad**

43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION

MR. **NEIL SIMPSON**

AMETEK LAND

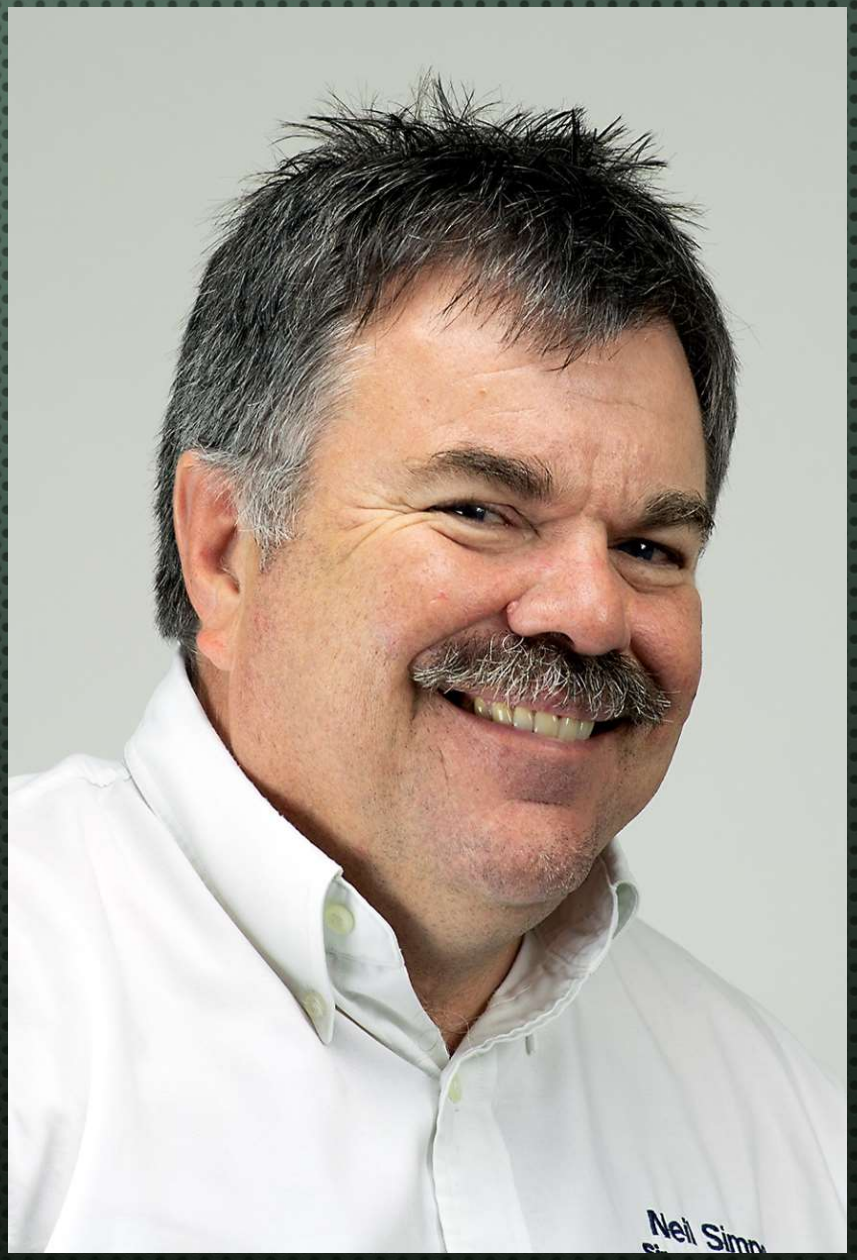
INDEPENDENT CONSULTANT

COMBUSTION, ENERGY AND GLASS

PAPER: **BEYOND THE VISIBLE: INDUSTRY 3.91**

(IN-FURNACE NEAR IR BORESCOPE)

AMETEK LAND'S FIVE-YEAR DEVELOPMENT OF AN IN-FURNACE NEAR INFRARED BORESCOPE [NIR B] HAS TAKEN THE GLASS INDUSTRY TO A NEW LEVEL OF UNDERSTANDING OF THE GLASS FURNACE OPERATION. WITH OVER 325,000 CONTINUOUSLY MEASURED OPTICAL TEMPERATURES IN OVER 50 END-FIRED AND CROSS-FIRED REGENERATIVE FURNACES, CASE STUDIES WILL DEMONSTRATE THE POTENTIAL TO USE THIS NEW DATA TO FURTHER DEVELOP FURNACE CONTROLS TO MEET THE NEEDS OF INDUSTRY 4.0 AND OPTIMIZATION OF THE FURNACE PROCESS.



43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION

MR. **FRED AKER**

PANERATECH INC.

VICE PRESIDENT

SALES AND MARKETING

PAPER: **SMART MELTER: NEW INDUSTRY STANDARD IN FURNACE LIFE OPTIMIZATION**

THE RADAR-BASED SMARTMELTER, THE NEW INDUSTRY STANDARD IN FURNACE LIFE OPTIMIZATION, IMPROVES DECISIONS REGARDING FURNACE CONDITION AND MAINTENANCE WITHOUT COMPROMISING THE SAFETY OF THE FURNACE. SMARTMELTER IS USED TO DETERMINE REMAINING REFRACTORY THICKNESS BELOW THE GLASS SURFACE INCLUDING THE METAL LINE, SIDEWALLS, BOTTOM AND THROAT. AS SMARTMELTER IS GAINING WIDE USE WITH VARIOUS MANUFACTURERS WHO HAVE UNIQUE NEEDS, SMARTMELTER HAS BEEN USED AT MULTIPLE STAGES OF FURNACE CAMPAIGNS TO MAKE COST-SAVING OPERATIONAL DECISIONS.

43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION

Hotwork INTERNATIONAL

MR. **BENJAMIN KOSTER**

HOTWORK INTERNATIONAL

CHIEF EXECUTIVE OFFICER

PAPER: **REGENERATOR REPAIR WITHOUT PRODUCTION LOSS**

WHAT IF AN UNEXPECTED, BUT MAJOR REGENERATOR PROBLEM OCCURS? WHICH OPTIONS ARE AVAILABLE, ALLOWING TO REPAIR THE REGENERATOR AND RETURN TO FULL PRODUCTION AS SOON AS POSSIBLE? HOW CAN YOU AVOID LOSING MONTH OF PRODUCTION IF THERE IS NO REFRACTORY AVAILABLE? OFTEN REGENERATOR PROBLEMS CAN OCCUR UNEXPECTED, THUS A FAST AND RELIABLE EMERGENCY SOLUTION IS REQUIRED, IS IT AT ALL POSSIBLE? VARIOUS OPTIONS ARE BEING DISCUSSED WITHIN THIS TALK, GIVING END USERS AN OVERVIEW OF PROVEN TECHNOLOGIES FOR THE REPAIR OF REGENERATORS (PARTIAL AND FULL) WITH AND WITHOUT PRODUCTION LOSS.

43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION

MR. PAUL SCHREUDERS

XPAR VISION B.V.

CHIEF EXECUTIVE OFFICER

PAPER: **A NEW WORLD OF GLASS MAKING… LIGHTER AND STRONGER**

XPAR VISION'S AMBITION IS TO ASSIST THE GLOBAL CONTAINER GLASS INDUSTRY TO MAKE ITS BOTTLES AND JARS LIGHTER AND STRONGER, PRODUCED WITH ZERO DEFECTS AT HIGHER SPEEDS. TO REALIZE THIS AMBITION, DEVELOPMENTS WITH A STRONG FOCUS ON THE GLASS FORMING PROCESS, DIFFICULTIES AND CHALLENGES IN GLASS MAKING WILL BE OUTLINED. FROM THERE THE PATH FORWARD TO A NEW WORLD OF GLASS MAKING WILL BE PROPOSED. A SPECIFIC FOCUS WILL BE ON HOT END SENSORS AND A NEW REVOLUTIONARY BLANK ROBOT, FOR THE PURPOSE OF SWABBING BLANKS AND NECK RINGS, BUT ALSO FOR EXECUTING OTHER FUNCTIONS AT THE BLANK SIDE.

43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION

MR. SHINJI YAMAMURA

AGC CERAMICS CO. LTD.

GENERAL MANAGER

GLASS ENGINEERING CENTER

PAPER: **REFRACTORY AND ENGINEERING TECHNOLOGIES ON GLASS MELTING FURNACES**

A GREAT CHALLENGE FOR GLASS MANUFACTURERS THESE DAYS IS TO FIND AN ANSWER ON HOW TO REDUCE FUEL CONSUMPTION WITHOUT WORSENING GLASS DEFECTS AND FURNACE CAMPAIGN LIFE. SOMETIMES, THESE ELEMENTS ARE MORE LIKELY TO INFLUENCE EACH OTHER INVERSELY. FOR EXAMPLE, EXCESS INSULATION MAY CAUSE THE INCREASING OF REFRACTORY CORROSION. SO IT IS IMPORTANT FOR WELL-BALANCED DESIGN TO UNDERSTAND BOTH REFRACTORY BEHAVIOR AND TEMPERATURE DISTRIBUTION INSIDE THE FURNACE. SOME ELEMENTAL TECHNOLOGIES WILL BE INTRODUCED IN THIS REPORT ABOUT REFRACTOR, ENGINEERING, AND OPERATION SUPPORT.

43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION

MR. VICTOR KURNIAWAN

THE LINDE GROUP

SENIOR EXPERT
OXY-FUEL COMBUSTION

PAPER: **OPTIMELT - HEAT RECOVERY TECHNOLOGY FOR GLASS FURNACES**

PRAXAIR, A MEMBER OF THE LINDE GROUP, HAS DEVELOPED A NOVEL HEAT RECOVERY TECHNOLOGY, THE OPTIMELT™ THERMOCHEMICAL REGENERATOR SYSTEM (TCR) THAT RECOVERS WASTE HEAT IN FLUE GAS FROM OXY-FUEL GLASS FURNACES. THE TCR SYSTEM IS EXPECTED TO REDUCE NG CONSUMPTION BY ABOUT 50% VS RECUPERATIVE FURNACES, 30% VS AIR-REGENERATIVE FURNACES AND 20% VS OXY-FUEL FURNACES. THE OPTIMELT TECHNOLOGY WAS FIRST SUCCESSFULLY COMMERCIALIZED IN 2014 AT A 50 TPD CONTAINER GLASS FURNACE IN MEXICO. THE NEXT OPTIMELT™ TCR SYSTEM WAS DEPLOYED ON AN OXY-FUEL FIRED TABLEWARE GLASS FURNACE AT LIBBEY LEERDAM IN THE NETHERLANDS. THIS SYSTEM HAS BEEN IN OPERATION SINCE NOVEMBER 2017.

43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION

HORN GLASS INDUSTRIES

DIPL. ING. **LARS BIENNEK**

HORN GLASS INDUSTRIES AG

HEAD OF TECHNOLOGY

CONTAINER AND SPECIAL GLASS

PAPER: **ELECTRIC MELTING TECHNOLOGIES**

THE USE OF ELECTRIC POWER SEEMS TO BE A SOLUTION IN ORDER TO REDUCE THE CO_2 EMISSIONS DRAMATICALLY AT LEAST ON THE GLASS FACTORIES SITE. UNDER CONSIDERATION, THAT THE ELECTRIC POWER IS PRODUCED BY WIND, SOLAR OR WATER POWER, THE CO_2 EMISSIONS COULD BE REDUCED GENERALLY. WE AS THE GLASS INDUSTRY ARE ABLE TO DEVELOP MELTING PROCESSES BASED ON ELECTRIC POWER. THE ALL-ELECTRIC FURNACE (AEF) BASED ON THE COLD-TOP TECHNOLOGY HAS BEEN SUCCESSFULLY APPLIED FOR DECADES AND HAS A POTENTIAL FOR INCREASED APPLICATION AND WIDER ROLE FOR THE GLASS INDUSTRY TO REDUCE ITS CO_2 EMISSIONS.

43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION

MR. ULAS TOPAL

VERTECH'

CHIEF EXECUTIVE OFFICER

PAPER: **INDUSTRY 4.0 REVEALED BY VERTECH**

TECHNOLOGY OFFERS MORE AND MORE OPPORTUNITIES TO SAVE TIME AND MONEY, AND TO BOOST PRODUCTIVITY. BUT EVOLUTION OF TECHNOLOGY IS ONLY A STARTING POINT; THE KEY CHALLENGE CONSISTS IN KNOWING HOW TO USE IT IN THE BEST POSSIBLE WAY.

VERTECH', AS A SOFTWARE PROVIDER FOR THE GLASS INDUSTRY, HAS A LONG TERM EXPERIENCE IN ACQUIRING AND DISPLAYING DATA AND OWES A HIGH-LEVEL EXPERTISE IN BOTH THE GLASS INDUSTRY AND SUPERVISION SYSTEMS.

TAKING INTO ACCOUNT THE CHALLENGES CURRENTLY FACED BY GLASSMAKERS, VERTECH'S SIL SYSTEM AIMS TO GO EVEN FURTHER BY ANALYZING THE PAST IN ORDER TO PREDICT THE FUTURE. THE OBJECTIVE OF COLLECTING AND ANALYZING ALL THIS DATA IS CLEAR: HAVING THE WHOLE PRODUCTION PROCESS UNDER CONTROL. THIS IS UNDOUBTEDLY THE KEY TO SUCCESS FOR GLASSMAKERS.

43RD ASEAN GLASS CONFERENCE

TECHNICAL SESSION

MR. **ROMAIN PIOCH**

TIAMA

SALES AREA MANAGER

ASIA AND MIDDLE EAST

PAPER: **SMART FACTORY TRACEABILITY**

FOR THE LAST FEW YEARS TIAMA DEVELOPED ITS STRATEGY WORKING ON ITS FIVE FIELDS OF EXPERTISE: INSPECTION, MONITORING, TRACEABILITY, SERVICE AND INTELLIGENCE, GIVING BIRTH LAST YEAR TO ITS SMART FACTORY CONCEPT CALLED YOUNIVERSE. THIS CONCEPT EXPLAINS HOW, THANKS TO ALL THE SENSORS STRATEGICALLY PLACED IN TIAMA MACHINES, AT THE HOT END WITH THE TIAMA HOT SYSTEMS (GOB CONTROL, ARTICLE SHAPE, EMISSIVITY…) AND AT THE COLD END WITH INSPECTION MACHINES, ALL THE DATA COLLECTED ARE SENT INTO INTELLIGENT SUPERVISION SYSTEMS TO BE ANALYZED WITH THE RESULTS DISPLAYED ON A SINGLE PLATFORM.

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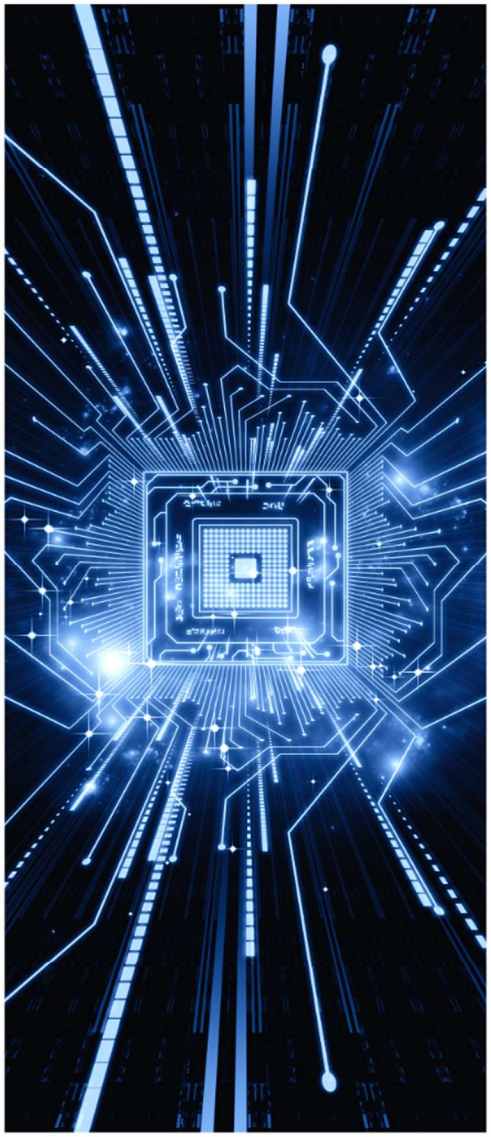

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