

# FAB NEWS



In SSMC Annex10 Cleanroom, AMHS (Automated Material Handling System) and Autoloaders are deployed to enable lots to travel autonomously from machine to machine, bay to bay across the cleanrooms. This highly automated operation is one of the key ingredients of SSMC's productivity strategy, towards manufacturing excellence and total quality.

## SSMC Contributes in Automation & Robotic Consortium

### Sharing Knowledge and Capabilities to Boost Productivity and Quality

In a recent virtual meeting organized by SSIA, SSMC shared our manufacturing excellence and innovation with the members of the Automation and Robotic Consortium. SSMC's strong presence is being featured in the VOICE magazine published by SSIA in July 2021. In fact, 7 years ago, SSMC was one of the forerunners in the Consortium, formed by EDB Singapore, to help accelerate the adoption of Industry 4.0 technologies in semiconductor manufacturing. This Automation and Robotic Consortium is a platform aim to enable

- **Networking:** Industry leaders from semiconductor companies come together to co-create a strong ecosystem to drive towards Industry 4.0
- **Knowledge Sharing:** Experts in automation and robotics to share their best practices and discuss technical challenges
- **Partnership:** Foster collaboration opportunities. Support local solutions, tools and capabilities.
- **Quality Improvement:** Evaluate AI-powered software solution for defect review and classification



A VIRTUAL KNOWLEDGE SHARING MEETING ORGAINESED BY SSIA (JULIE KOH, BOTTOM RIGHT) AND ATTENDED BY EDB (DR. MARVIN, RIGHT), SSMC (CALVIN WEE, IN ORANGE SHIRT) AND MEMBERS FROM OTHER COMPANIES INVOLVED IN THE AUTOMATION & ROBOTIC CONSORTIUM

#### SOURCE: SSIA VOICE MAGAZINE (July 2021 issue)

*"Building a new advanced fully automated Fab is not an easy feat. Converting an existing fully installed 200mm Fab to be autonomous automated is a whole new set of challenge due to fully build up space constraint. SSMC shared that they have overcome the challenge and upgraded the Automated Material Handling System (AMHS) in their 200mm line. It was remarkable to see the engineering innovation that goes into the realization of robotic connectivity and automation integration. The new AMHS transforms production lots movement within machines, across tools and bays, between the main fab and the cleanroom extensions. This significantly optimized the shop floor*

*efficiency while increasing manpower productivity and manufacturing quality. To make things happen, they emphasize not only on the integrated approach of the Industry 4.0 technologies, but also the strategic partnership and strong collaboration with automation suppliers and partners, including academia & the consortium.”*

**Incidentally, SSMC has just achieved breakthrough success in productivity as our daily production moves improved by 30% merely within 1 year.** In the interview with Davis Chou,



SSMC's VP of Operations, we asked what the key drivers behind this remarkable productivity improvement are. He said, "Compared to the previous year, the majority for move gain is coming from capitalizing the Fab utilization to its fullest potentials and strategizing wafer-start. **Also, our manufacturing automation is one of the key success factors. The dispatching of lots between main Fab and cleanroom extension, Annex 10, is done through automation solutions of AMHS and Conveyor, which significantly reduce manual workload and greatly helps to ease the manpower shortage amidst the COVID-19 period. Hence, further enhancing the agility of our production line."**