

NOVA MEASURING INSTRUMENTS LTD  
Form 6-K  
February 27, 2019

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 OR 15d-16 OF  
THE SECURITIES EXCHANGE ACT OF 1934

For the month of February 2019

Commission File No.: 000-30668

NOVA MEASURING INSTRUMENTS LTD.  
(Translation of registrant's name into English)

Building 22 Weizmann Science Park, Rehovot  
P.O.B 266  
Israel  
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F    Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): \_\_\_\_

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): \_\_\_\_

Attached hereto and incorporated by way of reference herein is a press release issued by the Registrant and entitled: "Nova and GLOBALFOUNDRIES Jointly Awarded the 'Best Metrology Paper' at SPIE Advanced Lithography Conference".

#### SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NOVA MEASURING INSTRUMENTS LTD.  
(Registrant)

Date: February 27, 2019    By: /s/ Dror David  
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Dror David  
Chief Financial Officer

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NOVA and GLOBALFOUNDRIES Jointly Awarded the “Best Metrology Paper” at SPIE Advanced Lithography Conference

Demonstrating adaptive metrology capabilities using machine learning engines

Rehovot, Israel – February 27, 2019 – Nova (Nasdaq: NVMI) today announced that its co-authored paper with GLOBALFOUNDRIES on “Implementation of machine learning for high volume manufacturing metrology challenges” has been selected as the winner of the Diana Nyssonen award for “best paper at SPIE’s 2018 Advanced Lithography Symposia.” The award was granted to Nova and GF on the opening day of the 2019 Conference. The paper is a result of the continuous partnership between the companies and demonstrates the innovation Nova promotes in advanced process control utilizing its unique and differentiated software solutions. The methodology described in the paper was already installed and is utilized by GF in high volume manufacturing.

The joint effort demonstrates that predictive metrology based on machine learning is an advantageous and complementary technique for high volume semiconductor manufacturing. The collaborative work of Nova and GF examined the suitability of machine learning to address high volume manufacturing metrology requirements for applications in both front end of line (FEOL) and back end of line (BEOL) in advanced technology nodes. Feasibility to predict CD values from an inline measurement using machine learning engines was demonstrated, as well as the usage of machine learning data to directly predict electrical parameters.

“We are honored to be selected for this prestigious award in collaboration with our partners at GF,” said Dr. Shay Wolfling, Chief Technology Officer of Nova. “This innovative metrology solution is enabled by our NOVAfi<sup>TM</sup> technology that enhances traditional modeling capabilities with advanced machine learning algorithms. The joint work with GF has demonstrated once more that through collaboration with our customers our most advanced machine-learning solutions can quickly proliferate and be validated in high volume production in advanced technology nodes.”

About Nova: Nova is a leading innovator and key provider of metrology solutions for advanced process control used in semiconductor manufacturing. Nova delivers continuous innovation by providing state-of-the-art high-performance metrology solutions for effective process control throughout the semiconductor fabrication lifecycle. Nova’s product portfolio, which combines high-precision hardware and cutting-edge software, provides its customers with deep insight into the development and production of the most advanced semiconductor devices. Nova’s unique capability to deliver innovative X-ray and Optical solutions enable its customers to improve performance, enhance product yields and accelerate time to market. Nova acts as a partner to semiconductor manufacturers from its offices around the world. Additional information may be found at [www.novami.com](http://www.novami.com).

Nova is traded in NASDAQ & TASE under the symbol NVMI.

This press release contains forward-looking statements within the meaning of safe harbor provisions of the Private Securities Litigation Reform Act of 1995 relating to future events or our future performance, such as statements regarding, but are not limited to, anticipated growth opportunities and projections about our business and its future revenues, expenses and profitability. Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied in those

forward-looking statements. Factors that may affect our results, performance, circumstances or achievements include, but are not limited to, the following: our dependency on three product lines; our dependency on a small number of large customers and small number of suppliers; the highly cyclical and competitive nature of the markets we target and we operate in; our inability to reduce spending during a slowdown in the semiconductor industry; our ability to respond effectively on a timely basis to rapid technological changes; our dependency on PEMs; risks related to exclusivity obligations and non-limited liability that may be included in our commercial agreements and arrangements; our ability to retain our competitive position despite the ongoing consolidation in our industry; risks related to our dependence on our manufacturing facilities; risks related to changes in our order backlog; risks related to efforts to complete and integrate current and/or future acquisitions; risks related to the worldwide financial instabilities; risks related to our intellectual property; new product offerings from our competitors; unanticipated manufacturing or supply problems; risks related to government programs we participate in; risks related to taxation; changes in customer demand for our products; risks related to currency fluctuations; risks related to technology security threats and changes in privacy laws; risks related to acquisitions we may pursue and risks related to our operations in Israel. We cannot guarantee future results, levels of activity, performance or achievements. The matters discussed in this press release also involve risks and uncertainties summarized under the heading “Risk Factors” in Nova’s Annual Report on Form 20-F for the year ended December 31, 2017 filed with the Securities and Exchange Commission on February 28, 2018. These factors are updated from time to time through the filing of reports and registration statements with the Securities and Exchange Commission. Nova Measuring Instruments Ltd. does not assume any obligation to update the forward-looking information contained in this press release.

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