NOVA MEASURING INSTRUMENTS LTD
Form 6-K
January 10, 2018

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 January 2018

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 Launches Breakthrough Machine Learning Software to Enhance Modelling Capabilities".

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: January 10, 2018 By: /s/ Dror David
_____
Dror David

Chief Financial Officer

Company Contact:
Dror David, Chief Financial Officer
Nova Measuring Instruments Ltd.
Tel: +972-73-229-5760
Email: info@novameasuring.com
www.novameasuring.com

Investor Relations Contact:
MS-IR LLC
Miri Segal
Tel: +917-607-8654
Email: msegal@ms-ir.com

Nova Launches Breakthrough Machine Learning Software
to Enhance Modelling Capabilities

Rehovot, Israel – January 10, 2018 – Nova (Nasdaq: NVMI), a leading innovator and a key provider of metrology solutions for advanced process control used in semiconductor manufacturing, today launched its NOVAFit™ engine, which enhances traditional modelling capabilities with advanced machine learning algorithms. The new software improves metrology capabilities and accelerates time to solution in complex 3D and High Aspect Ratio devices. Together with Nova's Fleet Management big data solution, NOVAFit™ utilizes fleet-wide information to provide adaptive advanced metrology solutions based on continuous training. The new suite of software capabilities will complement all of Nova's fleet and will work in conjunction with Nova's advanced modelling engine –NovaMARS®. These new solutions were adopted by multiple customers and have begun to generate revenue.

The new solution, which embeds the most advanced machine learning and big data architecture into optical modelling, revolutionizes the way customers utilize metrology measurement data and expands the metrology performance envelope to tighten process windows, avoid process excursions and improve yield. The platform was designed to interface with other process control tools for accuracy improvement and shorter training and control cycles. With this new significant supplement, NOVAFit™, in conjunction with Nova's Fleet Management, is now connecting all of Nova's metrology fleet to one big data cluster, which applies smart algorithms to improve the measurements' accuracy and process feedback across multiple fabrication steps. This new approach enhances Nova's capability in measuring multiple parameters in a much more robust method and improves its competitive position.

“We are excited to announce NOVAFit™, our new modelling software engine, which significantly enhances the way customers utilize metrology process control schemes in the most advanced nodes,” commented Dr. Udi Cohen, Nova’s Dimensional Metrology Division Head. “This breakthrough solution is powered by innovative machine learning algorithms and big data analytics for more accurate and reliable results. Through the development of this solution, we utilize our process insights knowledge, big data analytics and the most advanced industry grade machine learning capabilities. Combined with NovaMARS® modelling software, we can provide our customers with better, faster, more accurate and robust measurements for process monitoring and yield improvement, while reducing overall metrology complexity.”

About Nova: Nova delivers continuous innovation by providing advanced metrology solutions for the semiconductor manufacturing industry. Deployed with the world’s largest integrated-circuit manufacturers, Nova’s products deliver 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, supports the development and production of the most advanced devices in today’s high-end semiconductor market. Nova’s technical innovation and market leadership enable customers to improve process 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.novameasuring.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 ability to recognize the benefits of ReVera acquisition and risks that the acquisition may disrupt current plans and operations and impact relationships with customers, distributors and suppliers; 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 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, 2016 filed with the Securities and Exchange Commission on March 3, 2017. 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.