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around the large transparent window—the Library of Parliament's vaulted dome ceiling, maple leaves, and Canada's flag and coat of arms;

- raised ink on the portrait, the word "Canada" and the large number at the bottom; and the use of a single piece of smooth polymer with transparent areas for each note.

"In 1946, Viola Desmond took a courageous stand against injustice that helped inspire a movement for equality and social justice in Canada," said Jennifer O'Connell, Parliamentary Secretary to the Minister of Finance, who spoke at the \$10 bank note event. "More than 70 years later, we honour her as the first Canadian woman to appear on a bank note, and hope her story inspires the next generation of Canadians to follow in her footsteps."

Desmond, a successful Nova Scotia businesswoman, defiantly refused to leave a whites-only area of a movie theatre in 1946. Her court case was an inspiration for the pursuit of racial equality across Canada. A map of the historic North End of Halifax, where she lived and worked, is also shown on the note.

The back of the note carries Desmond's legacy into the present with several images and symbols. These include the CMHR, the first museum in the world dedicated solely to the evolution, celebration and future of human rights. Its criss-crossing ramps symbolise the history of human rights in Canada and the world—a history of setbacks and contradictions but built on strength and hope. The back also features an eagle feather, representing the ongoing journey toward recognising rights and freedoms for Indigenous peoples in Canada; an excerpt from the *Canadian Charter of Rights and Freedoms*; and a pattern of laurel leaves, an ancient symbol of justice, which is found in the grand entrance hall of the Supreme Court of Canada.

<http://www.bank-banque-canada.ca>

IQproID offers total integration of hologram & print in ID card applications

IQ Structures, a Czech research company that focuses on optical nanotechnologies has introduced a solution that enables the integration of security printing with high-resolution holograms. It is a milestone on the journey from creating documents with many security features, to a single compact item protected against all types of counterfeiting and tampering. The solution covers purpose-developed holograms and methodology and it is intended for use on polycarbonate ID cards.

"If I buy a car, I don't need a list of components. I want a correctly working product that is comfortable, fast and secure. The same principle should be applied to ID cards. From a vendor point of view, we can talk about many different anti-counterfeit protection technologies and elements. But card holders and inspectors have no reason to study technology detail. What they require is a simple solution that enables reliable differentiation between the genuine item and a fake," says Martin Jotov, Managing Director of IQ Structures.

He adds: "Security printing includes techniques such as guilloches, watermarks, intaglio printing, printing with special inks etc. A hologram is an optical structure that creates changing 3D

visual effects. Thanks to the latest IQ Structure's solution, these elements can be perceived as a single unit, with fluent gradating between printing and holograms. ID card designers should be able to concentrate on the authentication user experience fully, without the hinderance of technology restraints".

To achieve this objective, IQ Structures' research team had to solve several technical challenges, including the development of holograms that can be applied to any place on an ID card that the card designer may require. The current generation of holograms have some limits such as size, shape and ability to cover space up to the edge of the card. Co-ordination between application of the hologram and printing during manufacturing of the card is another technical issue.

Martin Jotov continued. "Until now, each technological innovation has meant a longer list of protection features. Such a trend cannot go on forever. Today, there is a consensus between security experts that too many security features often result in confusing of users rather than enhancing protection. There are only two ways forward. Limiting the number of features or integrating them. Our product, IQproID, opens the way toward integration of sophisticated technologies into simple units. I am confident that other protection technologies will follow this trend."

<https://www.iqproid.com>



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