It takes nerves, focus and fortitude to drive in Israel, where the use of indicators is optional, sudden braking is frequent and road rage is common. Amnon Shashua sometimes uses a motorcycle to weave through traffic between Mevaseret Zion, where he lives, and nearby Jerusalem, where he teaches and works.

Yet the 56-year-old Israeli has a very different vision for his daily commute. He is the chairman, chief technological officer and co-founder of Mobileye, a maker of autonomous driving technology, which uses cameras, algorithms and artificial intelligence to mimic the human eye and human judgment — and which Intel purchased this week for $15.3bn in cash, the biggest acquisition in Israeli history.

Mobileye’s driver assist systems are used by more than two dozen of the world’s car manufacturers and are poised to play a central role as advanced technology increasingly allows drivers to take their eyes off the road and their hands off the wheel.

Intel is making a substantial bet not just on Mobileye but on Mr Shashua, who will become the head of the Silicon Valley group’s global autonomous driving organisation, to be based now in Israel.

“I’m wondering whether Intel acquired Mobileye, or Intel acquired Amnon,” says Professor Shmuel Peleg of Hebrew University, who advised Mr Shashua on his master’s thesis at Israel’s Weizmann Institute of Science. “He is a very unique person in terms of imagining the future and then going ahead and doing it.”

Even when dressed down in shirtsleeves or T-shirts, in keeping with Israel’s informal business dress code, Mr Shashua still has the donnish, somewhat nerdy manner of a university lecturer. On holidays he sometimes goes on foreign adventure trips organised around motorbikes or four-by-four vehicles, an apt hobby for a man who has built a global business on shielding drivers from the risks of the road.

Students describe Mr Shashua as a devoted but demanding professor. “Possibly the best thing I’ve learnt from him is to look far and look wide,” says Nadav Cohen, one of his PhD students. “He has a huge talent for identifying things before they happen.”

With the Intel deal, Mr Shashua has become one of the most successful Israeli entrepreneurs ever. The acquisition epitomises the national business ethos of a country poor in natural resources but which has gone on to build a knowledge economy on the strength of its world-class universities and formidable military and spying establishment.

The tax windfall for the Israeli treasury, which the financial publication Globes estimated could be as much as $3.9bn, was big enough for Benjamin Netanyahu to claim the deal could help pay for a tax cut. The Israeli prime minister invited Mr Shashua and Ziv Aviram, Mobileye’s co-founder, to his Jerusalem office, where he hailed the two men as a reflection of “Israel’s genius and Israeli pride.”
Born in 1960, Mr Shashua studied maths and computer science at Tel Aviv University, the
Weizmann Institute, then MIT and developed an early interest in computer vision. In the 1980s, he
speculated about putting cameras in cars to warn about collisions, well before other computer
scientists thought this possible.

The idea that was to become Mobileye got its start at a lecture Mr Shashua gave in Japan in 1998,
when he piqued automotive engineers’ interest by saying he knew how to use a single camera,
rather than two, for safety functions such as lane departure warnings; if people could see well
enough to drive with one eye closed, he argued, so could cars.

He founded Mobileye the following year alongside Mr Aviram, a former retail entrepreneur who
had invested and advised him at CogniTens, an earlier start-up that developed vision systems for
quality control in the car and aircraft industries and which was sold to Hexagon, a Swedish
technology company, in 2007. The two have remained a devoted business couple since.

Mobileye, which floated on Nasdaq in 2014, does not disclose how much stock its founders hold
but, according to the Israeli press, Mr Shashua and Mr Aviram each have 7 per cent stakes and
stand to make about $1bn each.

“I want to say something a little unusual: it’s not the money,” Mr Shashua insisted in remarks to
the press on Tuesday. “What we want to do is change the world.”

This might be dismissed as self-serving corporate hyperbole were it not for the technological leap — and big financial stakes —
expected from autonomous driving, a market Intel estimates could be worth $70bn by 2030.

However, the field of autonomous driving is a work in progress, and many analysts said Intel
overpaid for a company with a technology that is still proving itself.

Last year Mr Shashua’s company parted ways unceremoniously with electric carmaker Tesla, after
a crash that killed a Florida man who had an autopilot system supplied by Mobileye in his car.

Mr Shashua defended the sale this week, insisting Intel, which employs more than 10,000 in Israel,
would give the company resources it never could have amassed on its own.

“If we want to change the world and to be a key player, we have to think in terms of a complete
industry, not just a product — and that’s the reason for the merger,” he said.

The writer is the FT’s Jerusalem bureau chief