

‘Seychelles’ of Volkovysk District

The 17th Belarusian Energy and Ecology Congress recently saw the National Academy of Sciences propose a new way of using chalk pit lakes effectively: giving them the status of natural hydrological sites for use as tourist attractions

By **Sergey Mikhalevsky**

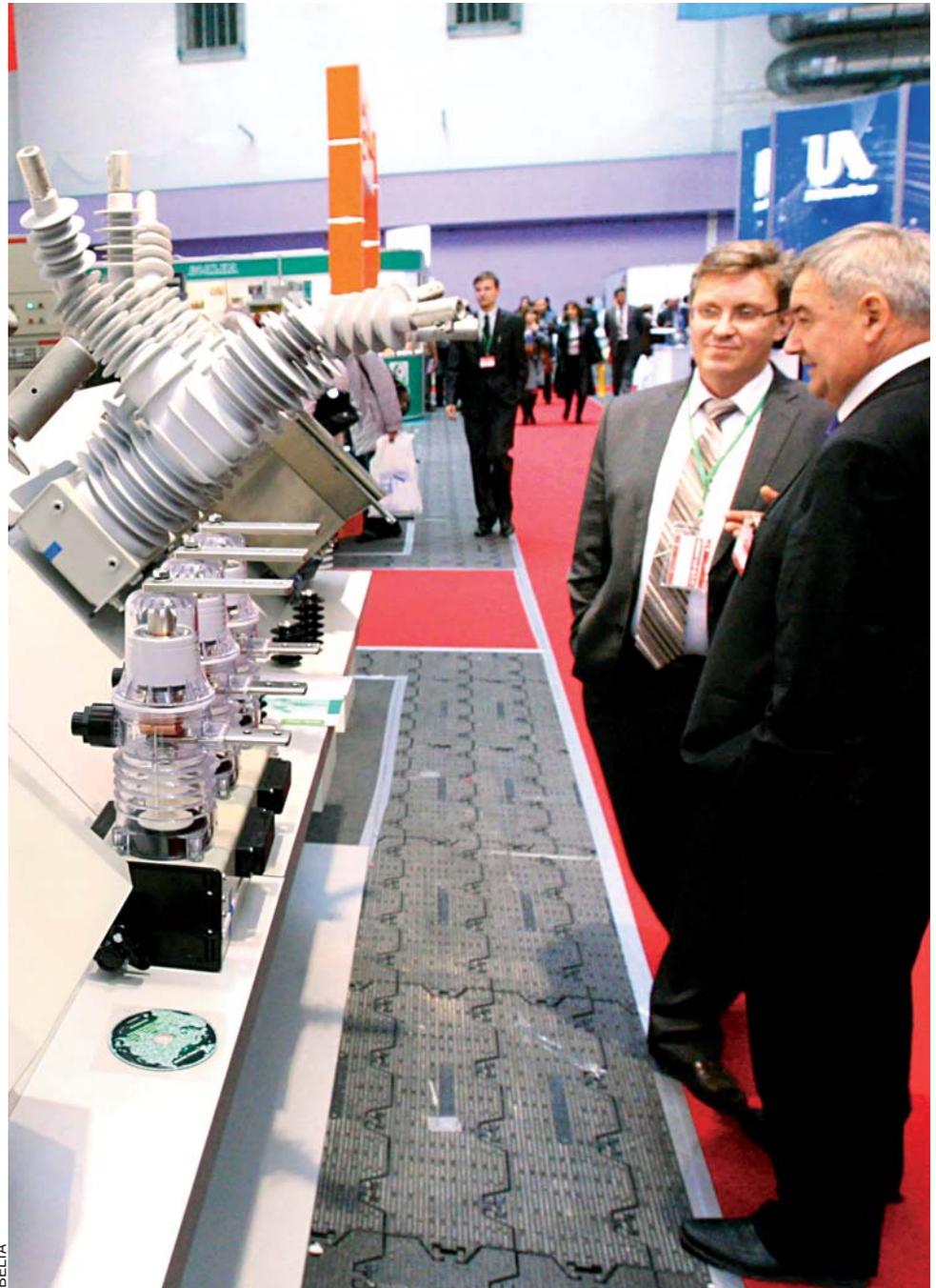
According to the Head of the Scientific and Practical Centre for Bio-resources, of the NAS of Belarus, Vladimir Baichorov, chalk pits’ banks were traditionally required, in Soviet times, to have a slope of less than 30 degrees, with application of fertilisers for the planting of forests. However, these measures are harmful to the environment.

He explains, “In particular, the fertilisers quickly leach into water, killing organisms and causing irreparable harm to biological diversity. A number of

quarries have their own sustainable ecosystem.” Many such lakes are now several decades old, surrounded by plants and over 60 species of living organisms.

A reviewed approach is clearly needed to ensure that tourists can visit safely without harm to the environment. “Chalk pits currently create revenue for the state in the form of taxes,” Mr. Baichorov notes. “About 10,000 tourist cars visit the Volkovysk District annually, paying Br3.5bn for fuel — over Br800m of which is paid into the budget in the form of taxes.”

Chalk pit lakes could be created as sites of natural beauty; rather than spending money on destructive reclamation, it could be invested into tourist infrastructure and safety measures. “Are these quarries so dangerous?” Mr. Baichorov muses. “Their landscape differs little from that of the Black Sea coast of the Crimea; every year, hundreds of thousands of tourists go there.” He tells us that necessary documentation is being prepared to give chalk pit lakes hydrological status as sites of national importance, with completion expected in 2013.



At 17th Belarusian Energy and Ecology Congress in Minsk



Car number plate recognition technology being tested

Young scientist attracts attention

By **Andrey Anikeev**

Car number plate recognition technology

Belarusian State University of Informatics and Radioelectronics graduate Alexey Yanochkin’s universal technology can recognise symbols digitally, regardless of font, number of lines, background colour or rotational angle. His software can then divine individual characters, making it perfect for recognising car number plates or reading business cards.

The software can be used by road traffic cameras or even by a camera on a mobile phone. Similar technologies are already used abroad, recognising patterns to discern car number plates; however, such technology can have trouble recognising foreign plates. Meanwhile, the Belarusian technology is universal

and can be used in any lighting. “The technology is maximally adapted to real conditions,” notes Alexey.

The recent 7th International Conference *Neural Networks and Artificial Intelligence*, held in Minsk, brought together researchers in the field of artificial intelligence from over 15 countries — including reports from well-known scientists from the USA and Italy.

“The conference was scientific but included presentations of practical application for industry, agriculture and medicine,” explains the Deputy Dean of the Computer Systems and Networks Department of the BSUIR, Marina Lukashovich. She asserts that scientific developments by Belarusian scientists in the sphere of neural networks and artificial intelligence are recognised abroad, with much success seen in the area of decision-making systems.

River valleys to become reserves

Two new local reserves soon to appear in Vitebsk Region

Surveys conducted by Vitebsk State University are being used to assign reserve status: to the Dobrinka floodplain in the Senno District and to the river valley of Ushacha in the Ushachi District. Both boast rare and endangered plant species, with Ushacha having huge thickets of edible and medicinal plants — such as bear’s onion (better known as

wild garlic). The largest population of perennial honesty in Belarusian Poozerie is found there (listed in the Red Book). In addition, great bellflower, fir clubmoss and woodland burdock (all protected species) thrive there. Meanwhile, anemone hepatica and lathyrus laevigatus require addition to the protective list. Cat tree, which is rare for Poozerie, also grows in great amounts. Three species of ground beetle reside there

(all listed in the Red Book of Belarus): carabus coriaceus, carabus cancellatus and carabus nitens.

Currently, in the Postavy District, the Scientific and Practical Centre for Bioresources of the NAS of Belarus is conducting its first stage of surveying the area, which borders Lithuania’s Adutiškis Reserve. Work is due to be completed in 2013, with a proposal made for reserve status of the trans-boundary site.

Firs and ashes being saved in Belovezhskaya Pushcha

By **Anna Drobova**

Environmental project to raise ground water level being implemented by APB-Birdlife Belarus public organisation

The project aims to make an inventory of seasonal and temporary water flow in the Belovezhskaya Pushcha, explains the Director of the APB-Birdlife Belarus, Victor Fenchuk. A sharp fall in ground water levels has brought about a dramatic rise in the number of eight-toothed bark beetles and, as a result, to a loss of fir and ash trees.

“As you know, the Belovezhskaya Pushcha National Park has experienced a complicated history. For a long time, it was a hunting forest, so the priority was to increase the population of wild animals and intensify forest management. Many parts of the forest were drained via small channels,



In the Belovezhskaya Pushcha

to encourage trees to grow better. This led to a significant fall in ground water levels, as seen today,” Mr. Fenchuk explains.

“With the Research Department

of the National Park, we’re now creating an inventory of water flow, aiming to then use forestry methods to reduce the impact of temporary seasonal streams.” Mr. Fenchuk adds that conservation of biological diversity is a key objective of his organisation countrywide. “Belarusian marshes are ecosystems of critical importance globally. Fortunately, despite reclamation, we’ve managed to save them. Now, all Europe is watching how we protect them. Sponsorship from the Coca-Cola Company has allowed us to implement a number of measures to conserve our marshes. They’ve set a good example to other commercial companies, showing how they can help minimise negative impact on the environment, improving the situation by implementing such projects. Businesses should be responsible for their actions and work to preserve our countryside,” emphasises Mr. Fenchuk.