

Press Release 018/2009

Bingo Voting Increases Security of Voting Machines

The KIT Process Ensures the Reproducibility of Counting Votes Requested by the Federal Constitutional Court – KIT Experts Inform at the CeBIT



Bingo Voting reliably counts every vote.

(Photo by: Markus Breig)

The Bingo Voting process developed by the KIT European Institute for Systems Security (EISS) reliably counts every vote. The system ensures the security of voting machines as required by the Federal Constitutional Court.

Today, the Federal Constitutional Court declared voting machines that do not allow for an independent check of counting unconstitutional. However, the Court admitted that there may well be machines that allow for a check of the counting procedure and reach a security comparable to voting on paper. The Bingo Voting process developed by the KIT offers this reproducibility of voting machines requested by the Federal Constitutional Court. Bingo Voting may be combined with any type of voting machine, also the voting machines that were mentioned explicitly by the Federal Constitutional Court in today's rendition of its judgment: These are scanner-based processes with a ballot paper and a ballot box or voting machines that print out a ballot paper for a separate box.

“In combination with such a voting machine, Bingo Voting ensures a reproducibility that exceeds the publicity principle requested by the Federal Constitutional Court”, says Dr. Jörn Müller-Quade, who is heading the EISS.

In Bingo Voting, every voter is given a receipt after voting by means of which he can check correct counting of his own vote without having to be present at the polling place for the whole day or having to trust that a sufficient number of alert observers witnessed counting. The vote of the voter is encoded such that only he and no other person can read out from the receipt which party he elected. This prevents the receipt from being misused for blackmail or purchase of votes. Together with the election result, Bingo Voting publishes all receipts. In this way, every voter can check whether his receipt is included and his vote has been counted. Special encoding of the voting receipts ensures the correctness of nearly all votes even if only few receipts were checked.

“According to today’s judgment, only one aspect still needs improvement”, says Müller-Quade. The Federal Constitutional Court requests that every voter understands the process. “To fulfill this requirement of the Court, we have to somewhat change the prototype that is currently being presented at the CeBIT. But we have already found a solution.” The prototype of Bingo Voting is currently being presented at the CeBIT in Hanover, Hall 9, Booth C02. There, an expert of the EISS will provide further information.

The Karlsruhe Institute of Technology (KIT) is the merger of the Forschungszentrum Karlsruhe, member of the Helmholtz Association, and the Universität Karlsruhe. This merger will give rise to an institution of internationally excellent research and teaching in natural and engineering sciences. In total, the KIT has 8000 employees and an annual budget of 700 million Euros. The KIT focuses on the knowledge triangle of research – teaching – innovation.

The Karlsruhe institution is a leading European energy research center and plays a visible role in nanosciences worldwide. KIT sets new standards in teaching and promotion of young scientists and attracts top scientists from all over the world. Moreover, KIT is a leading innovation partner of industry.

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