

A Primer on the UP Faculty Regent Electronic Voting System (System)

What is the UP Faculty Regent Electronic Voting System (System)?

The UP Faculty Regent Online Voting System is a Web-based application that will allow faculty members who are qualified to participate in the Faculty Regent selection process to cast their votes via the Internet using a PC or any Internet-connected device and a Web browser. The use of this System is provided for in Section 5.3.2.2, "Electronic Voting and Procedure," in the *2010 UP Faculty Regent Selection Process* document. (Selection Process)

Will all campuses use this System?

All Constituent Universities (CUs) shall use this System for electronic voting. No other electronic voting System shall be used (Section 5.3.2.2.1 Selection Process).

When can I vote? When will the System be activated?

The Vice President for Academic Affairs (VPAA), in the presence of the Vice Chancellors for Academic Affairs (VCAAs)/Vice Chancellor for Instruction (VCI), representatives of the nominees for Faculty Regent and other observers, will initialize the System on November 15, 2010 by clearing the vote tables and logs, generating the System's encryption keys, and setting the online voting schedules indicated by each CU. Once these schedules have been set, the System will automatically enable, and later disable, online voting on a per-CU basis. Faculty members can vote only within the designated online voting periods set by their CU.

The schedule of voting for your CU will be announced by your VCAA/VCI.

How may I use the System?

The OVCAA/OVCI of your CU, except for UP Diliman, will issue you, in a sealed envelope during the period October 18-22, a username and password generated by the UPD Computer Center. Make sure that you do not lose this information nor disclose it to anyone to ensure that you (and only you) will be able to vote online using your username and password. If you lose this information, you may not be able to vote online.

For UP Diliman qualified voters, the existing Webmail usernames and passwords will be used.

When the online voting opens for your CU, go to the following site:

<https://frovs.up.edu.ph>

which will have links to the voting site for your CU.

At your CU's voting site, you will be able to view the list of nominees and their profiles.

To vote, you will be prompted to enter your username and password and click the button marked “Vote” under your selected nominee.

The “Vote” buttons will be available only during the official period for electronic voting designated for your CU. Outside this period, you will still be able to access the site and view the nominees’ profiles but not vote.

What if I do not wish to select any of the nominees? May I abstain?

There is a provision for an “abstain” vote.

Will I be able to test the System?

There will be a dry run of the System on October 25-27. You will be able to log in using the username and password issued to you. These will also be the username and password to be used for the actual voting, so do not misplace nor disclose them. Once logged in, you will be able to test the System and cast your vote for the displayed sample nominees.

What are the System’s security and privacy features?

Each CU site contains only the certified list of qualified voters of that particular CU, thus, it is not possible to vote in a site other than your own CU.

When you cast your vote during the electronic voting period, you will be prompted for your username and password, thus it is important not to lose this information nor disclose it to anyone. This ensures that you (and only you) will be able to vote online using your username and password. The System will allow you to vote electronically only once.

The System will use Secure Sockets Layer (SSL) certificates and encrypt the connection between your browser and the online voting site (which is why the ‘s’ in ‘https’ is important when you type it into your browser). This ensures that you’re accessing the correct site, and that no one else can listen in on your network traffic while you’re voting.

Votes are stored internally. Under normal circumstances, votes cast cannot be traced back to voters as the link between them is encrypted. The only time the System would be able to internally re-establish the link between a voter and his/her vote, after the vote has been cast, is through a special procedure called “Setting Aside Votes,” which is described in detail below. It should be emphasized that the link between the voter and the vote cast is never displayed to anyone and is only done internally by the System.

Transactions made on the System are logged on different servers, and individual records and files use cryptographic hashes to detect any tampering.

What is the process called “Setting Aside Votes”?

After the simultaneous closing of both the manual and electronic voting, the VCAA/VCI of your CU will print a report of those who voted electronically, and compare it with the list of those who voted

manually. This will be done in the presence of the CU Committee and two (2) representatives per nominee.

At this point, only the list of those who voted electronically with their corresponding username and password will be viewed and printed. The link between the voter and his/her vote will not be seen. Also at this point, the number of votes obtained by each nominee will not yet be displayed.

In cases where a voter cast his/her vote using *both* the manual and electronic procedures (i.e., double voting), the manual vote shall prevail. The electronic vote is set aside through the "Setting Aside Votes" process in the System.

To set aside votes, the VCAA/VCI, in the presence of the CU Committee and nominees' representatives, uploads a pre-issued cryptographic key to the System. The VCAA/VCI then enters the username and password of each voter who double-voted, and after being prompted for a confirmation, sets aside the electronic vote. Internally, the vote that was set aside is deducted from the running tally. Neither the vote that was set aside, nor the state of the internal running tally will be visible to the VCAA/VCI nor any other user at this point.

Who has access to the cryptographic keys?

The cryptographic keys used to set aside votes is issued only to VCAs/VCI, in their capacity as Chair of the Committee for their respective CUs. These keys are actually half of cryptographic key-pairs that are generated per CU by the VPAA in the presence of witnesses, and formally turned over to the custody of the VCAs/VCI. The other half of these key-pairs are used by the System for encryption.

Backup copies of these keys will also be generated; however, only fragments of these keys will be held separately in the custody of the VPAA and the Director of the University Computer Center. These key fragments will be used if the original key pairs are lost or damaged, and only upon the authority of the UP President. Reassembling the keys would also require the VPAA and the Director of the University Computer Center to agree to merge the fragments in their respective custody. There will be no other copies of these keys either within or outside the system; once generated and issued, internal copies in memory will be deleted by the System.

When can the results of the online voting be obtained?

The results of the electronic votes may only be displayed by the VCAA/VCI once she certifies, through the System, that "*No (further) votes need to be set aside.*"

Once this certification is made, the internal encryption keys are destroyed, and the tallies are displayed. The tallies of the votes garnered by each nominee are then printed out, signed, and consolidated with the results of the manual voting. The consolidated results are then officially submitted to the OVPAA.