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Ref: AKTU/CTPC/2025/1261

13 Aug, 2025

To,

The Directors/Principals

Colleges affiliated/associated to Dr. APJ Abdul Kalam Technical University
Lucknow, Uttar Pradesh

Subject:- Regarding the Altair Wireless Propagation Modeling Contest Using Feko® and WinProp™ for all UG/PG/PhD engineering students.

Dear Sir/Ma'am,

Pleased to inform you that AKTU, in partnership with Altair, is organizing a Wireless Propagation Modeling Contest Using Feko® and WinProp™ at the All-India level. All UG/PG/PhD engineering students studying in AKTU affiliated colleges are eligible to participate in the contest. Hence you are requested to circulate this among our students to go through the attached annexure before participating.

Altair WinProp is a leading, comprehensive tool for wireless propagation modeling and radio network planning, supporting everything from satellite links to urban and indoor cellular deployments. Its advanced models and broad applicability make it ideal for designing networks for 5G/6G, IoT, public safety, broadcasting, and more. In an effort to promote skill development and practical learning, Altair has created a contest that allows each student to get practical WinProp experience and acquire a skill set that is on par with industry standards.

Using the Altair Feko® and WinProp™ simulation tools, the contest's objective is to **Design and Simulate a Wireless Propagation and Radio Network Planning System** for any of the applications listed below.

- 1. Smart cities**
- 2. Autonomous vehicles and V2X**
- 3. 5G/6G deployment planning**
- 4. Indoor navigation and smart building connectivity**
- 5. Industrial and defense communications**

Therefore, please register using the links provided below:

[https://unstop.com/competitions/altair-wireless-propagation-modeling-contest-using-feko-and-winprop-dr-apj-abdul-kalam-technical-university-1534316? \(Mandatory\)](https://unstop.com/competitions/altair-wireless-propagation-modeling-contest-using-feko-and-winprop-dr-apj-abdul-kalam-technical-university-1534316? (Mandatory))

Google form Link <https://forms.gle/A8j8RoxYdm6Pv4VP8> (Mandatory)

Note:- It is mandatory for students to register through their college email id.

For any query please contact at tmp@aktu.ac.in or anveshk@altair.com

Best wishes



(Neelam Srivastava)

Copy to:

- (1) Registrar, AKTU, Lucknow
- (2) Finance Officer, AKTU, Lucknow
- (3) Staff Officer to Hon' Vice Chancellor for kind information



(Neelam Srivastava)



ALTAIR WIRELESS PROPAGATION MODELING CONTEST



First Prize: ₹ 12000
Second Prize: ₹ 6000
Third Prize: ₹ 3000



Scan QR Code for Registration
and Submission

Altair® Feko® & Altair WinProp™
Wave Propagation and Radio Network Planning

Competition dates : 14 August 2025 - 30 September 2025

Altair Wireless Propagation Modeling Contest Using Feko® and WinProp™

About Contest

Altair WinProp is a leading, comprehensive tool for wireless propagation modeling and radio network planning, supporting everything from satellite links to urban and indoor cellular deployments.

Its advanced models and broad applicability make it ideal for designing networks for 5G/6G, IoT, public safety, broadcasting, and more.

To encourage skill development and real-world learning, Altair has come up with a new WinProp contest that enables every student to gain hands-on experience with WinProp and build an industry-level skill set.

All engineering students and research scholars (if they are currently enrolled in any college or university) from across India are eligible to participate in the contest.

Objective is to Design and simulate a wireless propagation and radio network planning for any of the below application (anyone) using the Altair WinProp simulation tool.

1. Smart cities
2. Autonomous vehicles and V2X
3. 5G/6G deployment planning
4. Indoor navigation and smart building connectivity
5. Industrial and defense communications

Prizes and Rewards

First Prize: 12000

Second Prize: ₹6000

Third Prize: ₹3000

Participation Certificate (for all valid Submissions)

Resources:

Altair Feko Youtube playlist: [Click Here](#)

E-Learning: [Click here](#)

Feko and WinProp Training Material: [Click Here](#)

OpenStreetMap: [Click Here](#)

Other Details:

What to do?

- Choose an application domain from the above-mentioned areas.

- Design and simulate wireless propagation and radio network planning, focusing on the mentioned applications, using the Altair WinProp simulation tool.
- Create or import geometry database using tools like WallMan.
- Define antenna locations and their parameters, often using AMan.
- Set up the propagation simulation parameters, including the desired propagation model in ProMan.
- Finally, run the simulation, and inspect the results within ProMan

Files to be Submitted:

- **.fdb/.odb file** *WallMan (indoor/urban)
- **.net file** *ProMan
- **.mic file** *
- **.nip/nup** *
- **.wpi** *
- **AntennaPattern .ffe file – Farfield pattern from Feko or AMan file**
- **ProMan Results files (ProName and NetName)**
- **PPT**
- **YouTube Video link – Walk through the project**

*Attach all the files (files to be submitted) into a ZIP file and submit the ZIP file in the submission form in the format

yourname_collegename.zip

* Create a YouTube video explaining your work and upload it to YouTube.

* Submit your file here [Link](#)

NOTE:

1. The contestants are not allowed to import any built-in models from the tool component library for this contest.
2. Students must use Altair WinProp tool for designing and simulation.
3. Only students currently pursuing engineering are eligible. Graduates are not eligible.
4. Upon successful completion of the project, students may include it in their resume.
5. Capture the following in the PPT (all data below mandatory)

Input parameters:

1. Type of Antenna - Model
2. Antenna Pattern from Feko/Aman
3. Geometry Database (indoor/Urban)
4. Antenna Location and parameters (Power, Latitude, Longitude, height, Azimuth and Down Tilt)
5. Wireless Air interface (if required)
6. Enabling required output parameters
7. Computation

Output Parameters: (Propagation)

1. Path Loss
2. LOS
3. Field Strength
4. Power

Output Parameters: (Network)

1. Cell Area
2. Site Area
3. Data rate
4. Throughput
5. Cell Assignment
6. Reference Signals
7. Control Channels
8. Data Channels

Download software: Free Academic License for Students (not institution)**Steps to be followed:**

1. Create Altair One Account
2. Obtain License Key <https://web.altair.com/altair-student-edition>
3. Download and Install Software:
<https://altairone.com/Marketplace?tags=654e421615ddb300af19cc18&tab=Info&app=Free>
4. Activate Software
NOTE: Students with the College Domain Mail can only download the software.
5. Altair training: <https://learn.altair.com/>
6. **Free Technical Support:** <https://community.altair.com/community>