**Slide: 01**

\* Assalamualaikum everyone!! Welcome to my presentation.

\* This Md. Abdul Kayum, from HSTU (Tell full form), Dinajpur.

\* My Paper ID 485 & the title is "Integration of T-shaped Notch Filter Elements into a UWB Antenna to Reduce EMI of WiMAX/N78 and N79 Bands"

**Slide: 02 (Outlines)**

\* At first, I'll briefly dicuss about UWB technology, with its applications, and some design challenges.

\* then our main objectives.

\* after that, the design procedure of the proposed notch filter element.

\* Finally, the results will be discussed with a comparison table.

**Slide: 03 (Introduction)**

\* Antenna is a (read from slide "- front end component....).

It can (-radiate and receive....)

\* Ultrawide band, It's a high speed technology to transmit large volume of information using low power radio signal. It has a lincence free frequency spectrum, 2.97 GHz to 10.76 GHz.

\* UWB is mostly used for the following applications (read slide for applications).

**Slide: 04**

\* There are some overlapping services with UWB.

For example, (read your slide)

\* Also, there are some antenna design challenges,

for examples, (read your slide)

**Slide: 05 (Objectives)**

\* The main objectives of our work, (read your slide)

- To design simple intrinsic notch filter element

- To block the EMI due to WiMAX/N78 band

- To block the EMI due to N79 band

- To attain satisfactory performances over the operating band

**Slide: 06 (Simulation Tool)**

\* We have used Coputer Simulation Technology (CST) version 2018

\* It’s a High performance 3D EM analysis software

* + Flexible to analysis
  + Having different simulation techniques

**Slide: 07**

(Notch Filter Design Procedure)

\* We have used, copper for ground & patch; (similarly, read your slide).

**Slide: 08** (Notch Filter Design Procedure) (Important slide)

\* Fig.1 shows the Final geometry of the UWB antenna with proposed Notch filter element

\* Here, There are two T shaped slot , this slot acts as an Intrinsic filter element.

\* It consists of horizontal & vertical slots

\* The overall length of the filter element are estimated by the equations (1), (2), & (3)

\* The calculated length was ... (read slide), after optimization, we have used only (read slide) to eliminate the WiMAX band.

Slide: 09

Nije bolo figure deke

Slide: 11 (Results: VSWR)

Nije bolo figure deke

Slide: 12 (Results: Gain)

Nije bolo figure deke

Slide: 13 (Results: Efficiency)

Nije bolo figure deke

**Slide: 15 (Comparison Table)**

\* Table II shows the comparison of the proposed work with some recent works.

\* we observed that the proposed design has comparatively compact size.

\* It covers entire UWB spectrum, filter out the WiMAX/N78 and N79 band with unique 2 T-shaped filter element.

\* The maximum radiation efficiency is 95%.

\* Therefore, the proposed design is comparable to others.

**Slide: 16 (Conclusion & Future work)**

\* Therefore, the overall features are .....(Read your slide)

\* In future, reconfigure notch filter can be designed for filtering multiple interfering bands. Also, the design can be fabricated in future.

**Slide: 17 (References)**

\* These are the references, we used in our work.

**Slide: 18 (Thanks giving)**

\* Thank you everyone!!

\* If you have any queries or suggestions, you are welcome.

**WiMAX Applications:**

1. **Broadband Internet Access**
2. **Rural & Remote Connectivity**
3. **Mobile Data Services**
4. **Enterprise Networks**
5. **Public Safety & Emergency Services**

**N79 (5G) Applications:**

1. **5G Mobile Networks**
2. **Enterprise & Industrial 5G**
3. **Augmented Reality (AR) & Virtual Reality (VR)**
4. **Cloud Gaming & Streaming**
5. **Autonomous Vehicles & Smart Transportation**
6. ** WiMAX – Worldwide Interoperability for Microwave Access**
7. ** N79 – It is a 5G NR (New Radio) frequency band ranging from 4.4 GHz to 5.0 GHz, primarily used in Asia. It does not have a full form like WiMAX.**