



# *Shankersinh Vaghela Bapu Institute of Technology*

(Affiliated to Gujarat Technological University, Approved  
by AICTE, [www.bapugkv.ac.in](http://www.bapugkv.ac.in))

(Gandhinagar--Mansa Road, PO. Vasan, Gandhinagar District, Gujarat, Pin.  
382650)

---

## **A Report on “Reliance Jio AG node”**

**7<sup>th</sup> SEMESTERS CE/IT**

**Organized By**

**Computer/Information Technology Engineering  
Department**

## Workshop Details

Sr No.	Content	Description
1.	Title	<b>Reliance Jio AG node</b>
2.	Date	<b>27/07/2018</b>
4.	<b>Introduction &amp; Objective</b>	<p><b><u>Introduction:</u></b></p> <ul style="list-style-type: none"> <li>• <b>Reliance Jio Infocomm Limited</b> <u>d/b/a Jio</u> is an Indian <u>mobile network operator</u>. Owned by <u>Reliance Industries</u> and head office in Ahmedabad (Gujarat Zone) and head quarter in Navi Mumbai (Maharashtra) , it operates a national <u>LTE</u> network with coverage across all 22 <u>telecom circles</u>. Jio does not offer <u>2G</u> or <u>3G</u> service, and instead utilizes voice to provide voice service on its network</li> <li>• Jio owns spectrum in 850 MHz and 1,800 MHz bands in ten and six circles, respectively, of India's 22 <u>circles</u>, and also owns pan-India licensed 2,300 MHz spectrum. The spectrum is valid until 2035</li> <li>• Jio shares spectrum with <u>Reliance Communications</u>. The sharing deal is for 800 MHz band across seven circles other than the 10 circles for which Jio already owns.</li> <li>• In September 2016, Jio signed a pact with <u>BSNL</u> for intra-circle roaming which would enable users of the operators to use each other's 4G and 2G spectrum in <u>national roaming</u> mode. In February 2017, Jio announced a partnership with <u>Samsung</u> to work on LTE - Advanced Pro and 5G.</li> </ul> <p>The company has a network of more than 250,000 km of fiber optic cables in the country, over which it will be partnering with local cable operators to get broader connectivity for its broadband services</p> <p><b><u>Objective:</u></b></p> <ul style="list-style-type: none"> <li>• To enhance the knowledge of students.</li> <li>• To make aware with real industry and their projects.</li> <li>• To fill the gap between academy and industry.</li> <li>• To know the persons of industry and what is the working role of person in industry.</li> </ul>

5.	<b>Conclusion</b>	After the visit of AG node, Students gain the knowledge of BTS and BSC their working especially in the case of call forwarding, call waiting etc services. The technology used by JIO is very advanced and it is the only network with advance feature. The gain the knowledge of handsoff and handover techniques with hardware installation.
6.	<b>No. of Students &amp; Faculty Members</b>	<b>45+15 Students CE/IT</b> <b>3 Faculty Members</b> 1. Mr.Tarun Sharma (IT) 2. Mr.Vipul Joshi (IT) 3. Ms.ZalakPrajapati(CE)

## What is meant by VoLTE in Jio sim?

- 4G or 4GLTE is specifically a data carrier network. Initially there were no plan to carry voice traffic over LTE Network. But as the time progressed and voice revenue started dropping due to apps like WhatsApp, Viber etc. operator started to look for Voice Services over LTE Network so that customer can use the inbuilt functionality in the network rather than an app for calling also.
- This lead to development of VoLTE. This is basically same like VoIP but here traffic is being carried over LTE IP network. VoLTE makes your 4G SIM and phone to use calling functionality like you do with 3G or 2G network SIM and Phone.
- VoLTE stands for Voice Over LTE(Long-term emission), meaning your call is treated like all other data that goes in and out of your phone. VoLTE promises HD call quality, faster calls, and better use of data. So, unlike right now, your network won't drop to 2G or 3G when you're making a call. A VoLTE enabled phone can handle calling and other data-based activities simultaneously

### Benefits of VoLTE network:

1. **Superior call quality** – The big advantage of VoLTE is that call quality is superior to 3G or 2G connections as far more data can be transferred over 4G than 2G or 3G.
2. **Improved coverage and connectivity** – VoLTE can connect calls up to twice as fast as the current methods and as 2G and 3G connections will still be available when there's no 4G signal it simply means that there's greater mobile coverage overall, as currently places with a 4G signal but no 2G or 3G means that one you can't make or receive calls.

Following is a list of the apps:

- MyJio - manage Jio account and digital services associated with it
- JioTV - live TV channel service
- JioCinema - online HD video library
- JioChat - instant messaging app
- JioMusic - JioMusic Helps In Listening The Music In Different Languages And To Save Offline
- Jio4GVoice (earlier, JioJoin) - VoLTE phone simulator
- JioMags - e-reader for magazines
- JioXpressNews - news and magazine aggregator
- JioSecurity - security app
- JioCloud - cloud-based backup tool
- JioMoney Wallet - online payments/wallet app
- JioSwitch - To transfer content Between Android To Android, Android To iOS, Android To JioPhone, iOS To JioPhone, iOS To iOS And JioPhone To JioPhone
- JioNet - connect to JioNet Wi-fi

- **Reliance Jio Infocomm Limited** d/b/a Jio is an Indian mobile network operator. Owned by Reliance Industries and headquartered in Navi Mumbai, Maharashtra, it operates a national LTE network with coverage across all 22 telecom circles. Jio does not offer 2G or 3G service, and instead utilizes voice to provide voice service on its network
- Jio owns spectrum in 850 MHz and 1,800 MHz bands in ten and six circles, respectively, of India's 22 circles, and also owns pan-India licensed 2,300 MHz spectrum. The spectrum is valid until 2035
- Jio shares spectrum with Reliance Communications. The sharing deal is for 800 MHz band across seven circles other than the 10 circles for which Jio already owns.
- In September 2016, Jio signed a pact with BSNL for intra-circle roaming which would enable users of the operators to use each other's 4G and 2G spectrum in national roaming mode. In February 2017, Jio announced a partnership with Samsung to work on LTE - Advanced Pro and 5G.
- The company has a network of more than 250,000 km of fiber optic cables in the country, over which it will be partnering with local cable operators to get broader connectivity for its broadband services

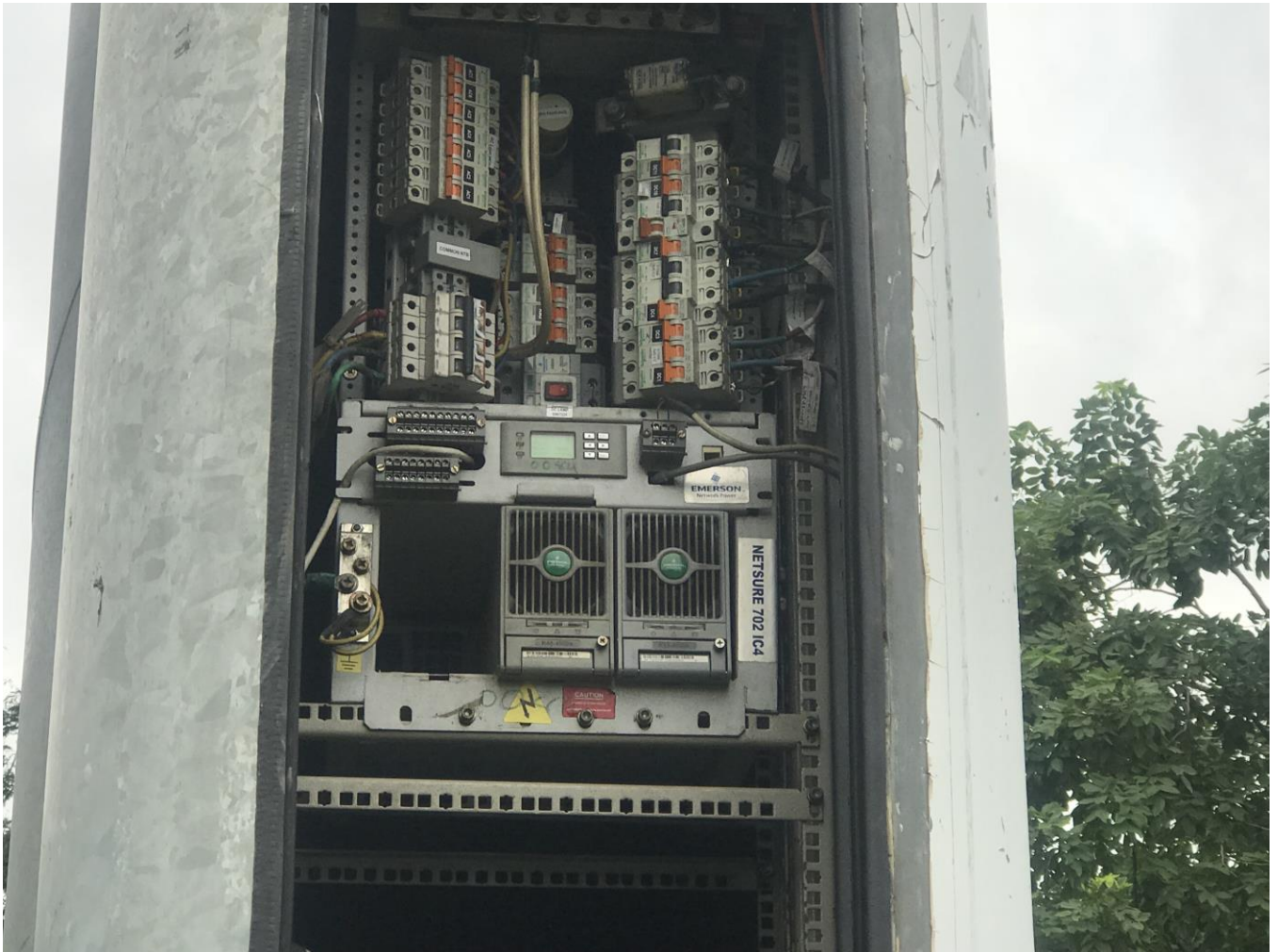
## Photo Gallery

### 1. Lecture Taken by Expert:





## 2. Gallery



**3. Group photo (60 Students with 3 Faculty Members & 3 Experts):**



**Industrial Visit Organised by: CE/IT Department**