From the desk of Rouzbeh

Dr. Rouzbeh Yassini

"Our goal is to provide you with an easy way to stay current on evolving topics in broadband, without taking a lot of your time."

It feels like just yesterday when I was pioneering cable modem technology at LANcity. Who would have thought back then — 25 years ago — that more than 2 billion would now be deployed around the world. The technology has progressed and costs have gone down but the need for ever increasing communication speeds continues unabated. Applications and services are becoming more bandwidth intensive and I foresee this trend continuing far into the future.

That is one reason that BCoE, which I lead, has released an RFP in the area of Smart Communities. We are focusing on proposals that use broadband technology through innovative apps and systems to improve quality of life, lead to economic gain and education/service delivery. We are particularly interested in proposals that would lead to larger funding opportunities announced by the Obama administration. **See Link**

But I get ahead of myself. I want you to know that this newsletter is the first of what will be a monthly communication. Each will cover topics that we at the Broadband Center of Excellence are following, working on, or just interested in as it pertains to broadband globally. Included in our quick overviews will be links to additional information that we think is relevant and informative, in case you want to dig deeper. Our goal is to provide you with an easy way to stay current on evolving topics in broadband, without taking a lot of your time.

My friend Paul Nikolich, who is chair of the IEEE 802 group, has been doing quite a bit of travelling lately, and just returned from one of his interim meetings in Macau. Paul indicates that there is interesting work going on in the 802.3 and 802.11 working groups targeting higher throughput extensions to the existing standards, in excess of 20 Gbps. As chair of 802 for many years, Paul provides BCoE much insight into evolving standards and the state of broadband technologies in general.

One area of broadband technology BCoE is exploring is **TV White Space**. In 2014 we worked with the UNH Electrical Engineering department to deploy a small-scale trial surrounding the campus. Though the equipment used was 1st generation and proprietary, **it showed promise** of using the freed up TV spectrum as a means of providing robust broadband services to disadvantaged areas.

Through Paul and other sources, we also are following the evolution and rollout of 5G. **Verizon is one carrier** that is being aggressive in getting this technology to market, perhaps as early as 2017. Speeds 30 to 50 times faster than 4G are being discussed, and as history tells us more speed means innovative and possibly disruptive services and applications that will quickly appear to take advantage.

And, don't forget the FCC. It issued its annual broadband progress **report** in late January showing that the unserved and underserved number of Americans continues to get lower, although at a slow rate. And, the Commission is seriously considering methods of subsidizing broadband for **low income families**.

Finally, we are hosting at UNH a seminar on April 18 about future, cloud-based networks, with a Comcast senior vice president and myself as speakers. I hope you can join us. Thanks for reading our first newsletter and I hope it has informed you on some of the major broadband developments in New Hampshire and the world. Please drop me a note if you have any comments or suggestions for this newsletter or BCoE, or if you wish to attend the seminar.

Rouzbeh