**ITU-R Liaison Group**

**DRAFT "Proposed Communication to ITU regarding 4G Wireless Technology"**

To: Mr. Valery Timofeev, Director, Radiocommunication Bureau, ITU

From: IEEE

Dear Mr. Timofeev,

IEEE has taken note of ITU’s press release of 21 October, entitled “ITU paves way for next-generation 4G mobile technologies: ITU-R IMT-Advanced 4G standards to usher new era of mobile broadband communications.” IEEE appreciates the acknowledgement within that announcement that the WirelessMAN-Advanced technology, proposed by IEEE, “met all of the criteria established by ITU-R for the first release of IMT-Advanced” and was “accorded the official designation of IMT-Advanced.”

In addition, we have taken particular note of the fact that ITU’s announcement has specifically identified IMT-Advanced as the “global 4G mobile wireless broadband technology” and indicated that only IMT-Advanced technologies are “true 4G.” We are particularly concerned with this usage of the term “4G.” While we expected the ITU’s news to lead to a positive reaction, we have observed that most of the responses have been negative, with a focus on technologies that were *not* accorded IMT-Advanced status. Many of these technologies are considered by industry to be “4G” mobile wireless broadband technologies. ITU, by designating only IMT-Advanced as “true 4G,” has implied that other technologies labeled as 4G must be “false 4G” technologies. Thus, the negative focus follows naturally.

IEEE’s view is that a number of technical features have been joined together in the newest generation of mobile wireless broadband technology, and that those features are common across a set of technologies arising from independent standardization bodies. Therefore, it is natural that this set of features would be seen by industry as a new generation, the fourth such generation. IEEE understands that other organizations may have differing views of the definition of “4G,” so IEEE does not claim to have the sole legitimate understanding of the term and would not claim to control the single “true” definition. By the same token, IEEE is concerned when other organizations make such claims. In particular, we are very concerned when ITU, given its intergovernmental status, undertakes to redefine a broadly used industry term with a restrictive meaning incompatible with industry usage.

Please understand that the decision to incorporate IEEE technology in IMT-Advanced was the result of a long term effort. IEEE informed ITU-R Working Party 8F in 2006 that it was initiating the 802.16m standardization activity specifically to develop standardized technology to meet ITU-R’s IMT-Advanced requirements, which, at the time, were not yet specified. IEEE has been significantly engaged over the last four years in developing the relevant standard, while regularly preparing exhaustive, detailed technical input to ITU-R Working Party 5D in support of the developing proposal. IEEE also worked diligently with other parties (namely, the Administration of Japan and the TTA) that separately submitted the IEEE’s technology.

During the four-year development program, IEEE very clearly and specifically proposed technology for IMT-Advanced. At no time did IEEE ever submit a proposal to have its technology identified as “4G.” IEEE’s has not requested that the WirelessMAN-Advanced technology be identified as “4G” and has not been consulted regarding ITU’s intent to label the technology as such.

In fact, while we are disappointed at ITU’s action, we are also puzzled by it because we cannot understand the justification or rationale for the announcement. To our knowledge, no action within the ITU has authorized any ITU body to develop any specification for “4G.” Therefore, we fail to understand why the ITU would take the step of declaring an ITU definition of “true 4G” based on the unauthorized action of a single Working Party within an ITU-R Study Group.

Furthermore, we would like to seek further clarification as to how and when ITU-R Working Party 5D made the decision described in the announcement of 21 October. Our representatives present throughout the process are unaware of any decision to name IMT-Advanced as “4G.” In fact, we would like to call your attention to the ITU-R Working Party 5D Chairman’s Report (R07-WP5D-C-0242!H01) from Meeting #2 (24 June to 1 July 2008, in Dubai), including the following information:

***7.1 On the Use of the Term “4G”***

*WP 5D held discussion in the 1st meeting on the view on using the term “4G” in ITU-R.  It was requested that this view be re-examined.  The WP 5D opening plenary reached the conclusion presented below and it was requested that the view of the meeting be captured in the Report of the meeting.*

*WP 5D view on the use of the term “4G”.*

*There was general agreement in Working Party 5D with the sentiment expressed in Document 5D/32 that the ITU should use the term IMT (including IMT-2000 and IMT-Advanced). The term “4G’ should be avoided. It is the view that WP 5D can (and will) apply this agreement, including the avoidance of the use of the term "4G", in its' own deliverables. However, it is further noted that WP 5D has no authority to dictate what terms or terminology will be used by the ITU as a whole. Nonetheless, WP 5D would suggest the ITU-R in its documentation might wish to consider a similar view with regard to the use of the term IMT (including IMT-2000 and IMT-Advanced) and the avoidance of the term “4G”.*

*It was further suggested to bring this view of WP 5D to the attention of Study Group 5 and the Director of the BR.*

It is IEEE’s understanding that this decision of ITU-R Working Party 5D was *against* the use of the term “4G.” The decision was based on Document ITU-R 5D/32, from the Administration of Canada, and on Canada’s followup contribution Document ITU-R 5D/162. ITU-R 5D/32 argues that:

*Therefore it is not possible to uniquely define “4G” even though it has already been used extensively in the literature and some entities have attempted to provide definitions. In the future, it may be easier to look back and attempt to characterize the latest generations of mobile wireless networks. Governments, institutions and commercial entities are looking to the ITU-R for guidance and they should be urged to refer to the emerging systems by their names, without attaching any labels referring to generations.*

5D/32 specifically proposed the following:

*It is proposed that the term “4G” not be used in ITU-R documentation.*

Given the serious impact of the ITU’s declaration of IMT-Advanced as “4G,” and given our understanding of the background for this declaration, IEEE proposes that ITU revise the announcement of 21 October to eliminate all references to “4G” and to state that ITU takes no view regarding the definition of 4G mobile wireless broadband technology.