ADDENDUM

to

THE MEMORANDUM OF UNDERSTANDING FOR A MULTI-LATERAL COLLABORATION

between

THE INSTITUTIONS AND FUNDING AGENCIES OF THE CTF3 COLLABORATION

concerning

THE CONTRIBUTION OF ANKARA UNIVERSITY INSTITUTE OF ACCELERATOR TECHNOLOGIES (IAT) TO THE CLIC/CTF3 COLLABORATION

02/08/2013

CONSIDERING:

The Memorandum of Understanding ("the MoU") defining the framework applicable to the construction of a 3rd generation Compact Linear Collider Test Facility (CTF3) and the performance of Experiments to demonstrate the feasibility of key issues of the CLIC scheme;

That Article 1.2 of the MoU envisages Addenda defining each contribution pledged to the CTF3 Collaboration,

THE INSTITUTE OF ACCELERATOR TECHNOLOGIES (IAT) OF ANKARA UNIVERSITY IN its capacity as Member of the CTF3 Collaboration HEREWITH AGREES to make the following contributions:

The IAT will contribute to CLIC and CTFs collaboration in the period of 2013-2017 together with scientists from İstanbul University, Nigde University, Uludag University, Abbant Izzet Baysal University and Suleyman Demirel University. IAT and collaborating universities shall basically assume responsibility for the provision of the following subjects.

- Contributions to the Drive Beam Complex workpackage within the Parameters and Design activities
- Contributions to the workpackages on Feedback Design and on Background
- 1- The particular contributions of IAT the Drive Beam Complex workpackage are
 - CLIC Drive Beam Linac beam dynamics studies
 - Design of drive beam bunch compressors
 - Contributions to optic studies in CLIC drive beam combiner rings However the contribution subjects can be extended in the future to include structure design and RF development for both drive beam and main beam, depending on available resources at IAT.

Two positions for the PhD student will be initiated by IAT for the subjects mentioned above within the framework of doctoral student program of Ankara University or any University collaborating with IAT. Initial training and continuous supervision of the students will be provided by two Doctorate level experts, who will be working part time (20%) on the project. The number of PhD positions will be increased if RF and Structure subjects will be included to the contribution in future.

2- The contributions to the Feedback Design and Background workpackages are going to be studied particularly by the collaborating institutes with IAT. PhD students will be initiated for the related subjects. The PhDs will be supervised by IAT or Collaborating Universities with IAT. The subjects will be mutually agreed upon by both parities. Doctoral specialists will be working part time (20%) on the initial training and continuous supervision of PhD students working on the

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subjects of Feedback Design/Beam-beam background and Synchrotron radiation background studies. The number of PhD students will be defined according to the subjects.

IAT contributes to the visits of its experts to CERN funding of 50kCHF per year available from the Turkish Atomic Energy Agency.

The CLIC Project will also contribute to these visits as follows:

- Depending on the length of their stay, each visitor will receive a subsistence allowance up to 50% of the CERN official applicable rate.
- The total contribution of the CLIC project will not exceed 50 kCHF/year over the defined period.

The parties each shall nominate a Technical coordinator whose role is to coordinate technical activities within the framework of MoU

This Addendum shall form an integral part of the MoU.

Done in Geneva on:

For CERN

For

Institute of Accelerator Technology of Ankara University

Prof. Dr. Ömer YAVAŞ

Director