**Tasks for the development of ISMS.**

**A. Development steps:**

1. Creation of design of the highest level (upper level). - **2 days (01-03.11.2019)**

2. Development of UML design (roles). - **5 days (04-09.11.2019)**

3. Development of a table model. – **5 days (09-14.11.2019)**

4. Development of the application interface. - **7 days (15-22.11.2019)**

5. Implementation of the application (integration, functionality). - **7 days (22-29.11.2019)**

6. Test application. - **3 days (30.11-02.12.2019)**

7. Production. - **3 days (02-05.12.2019)**

**B. Reporting Section (with recommendation of Tom Sheng):**

1. Calculation of water demand should be done at each WUA and 10 irrigation systems. (Intakes from the Kafirnigan River and 44 Cham). Each WUA must have its own ID code, area, culture and need.

2. Calculation of water demand, based on the application of each WUA water request in the GUMI.

3. The daily volume of water supply for each head water intake/irrigation system .

4. A report summarize 10-day water intake for each irrigation system.

5. For each water intake, information on the level, flow rate and volume of water (fact).

6. The use of the rating curve as a function of Q (flow rate) versus h (level).

7. At gauging stations, determine the actual water withdrawal at gauging stations.

8. Summarize for all WUAs water supplied and for a specific channel.

9. The result should be:

1. How much water is taken from the river for 10-day and vegetative periods.

2. How much water is taken by each WUA for 10-day and vegetative periods.

3. How much is output (reset).

4. Calculation of the remaining water in the WUA.

10. Information about Dekhkan farms, the amount of payment for each WUA (plan) must be Integrated with the billing system (in fact).

11. All standard reporting forms from the GUMI should automatically generated by the IMIS. (forms to be taken from Kholiyorov I.)

12-14. RWS, IE and ISDE

**C. Technical Section:**

1. Use BPDD log in page design – with ALRI logo.

2. Use the same color scheme as ALRI website.

2. Add a basin level to the application and should have choice for different basin in the country.

3. Convert Oblast-Rayon approach to irrigation system approach.

4. Make inputs for basins, rivers, gauging stations, crops, WUAs, and etc. For the LKB, all these data should be populated with the data from the WIS Geodatabase.

5. The calculation must be according to the tables of the water supply plan I. Kholiyorov

6. Integration of near-real-time data from 49 automatic water level meters to IMIS.

7. Use a schematic diagram for Kafirnigan and Zarafshan for IMIS.

8. Develop graphic and tabular displays of time-series data.

9. Develop a reporting module (see Section B above)

10. Finalize the data import / export modedule.

11. Prepare manuals for IMIS (admin / user both)