31 декабря 2020 г.

Ведомость посещения занятий по преобразователям энергии студентами 6400 группы

		21 ноября	28 ноября	12 декабря					
1	Барановский Руслан		✓	✓					
2	Евстратов Владимир	✓		✓					
3	Задорожнюк Даниил Булатович		✓						
4	Иванченко Максим Вадимович		✓						
5	Маратов Мирас								
6	Обама Омбеде Николас Серж	✓	✓	✓					
7	Седельников Вячеслав	✓		✓					
8	Дегбун Уильям Михаэль	✓	✓	✓					
9	Филатенков Павел Андреевич	✓	✓	✓					
10	Фомина Елизавета	✓	✓	✓					
11	Халил Зейн	✓	✓	✓					
12	Альмушреки Осама Абду Али	✓	✓						
13	Саид Амир	✓	✓						
14	Уллах Вахаб								
15	Содан Крешимир								
16	Масаве Паскаль Диоскори	✓		✓					

		T1	T1	T2	T2	T3	T3	T4	T4	T5	T5	T6	T6	L1	L2
1	Барановский Руслан	21.12	29.12	21.12	29.12	21.12	29.12	22.12	30.12	21.12	30.12				
2	Евстратов Владимир														
3	Задорожнюк Даниил	19.12	19.12	19.12	29.12	25.12	30.12	23.12	23.12	25.12	29.12			31.12	
4	Иванченко Максим Вадимович	12.10	19.12	05.11	23.12	15.11	19.12	15.11	21.12	22.12	23.12				
5	Маратов Мирас	20.12	29.12	06.11	29.12	20.12	30.12	21.12	30.12	20.12	30.12			30.12	
6	Обама Омбеде Николас Серж	10.10	17.10	21.11	21.11	05.12	23.12	22.12	23.12	22.12	23.12			31.12	31.12
7	Седельников Вячеслав	19.12	19.12	20.12	29.12	21.12	—	21.12	30.12	24.12	30.12			31.12	
8	Дегбун Уильям Михаэль	10.10	17.10	21.11	21.11	21.11	26.12	22.12	26.12	22.12	26.12			31.12	31.12
9	Филатенков Павел	30.09	23.12	30.09	23.12	30.09	23.12	30.09	23.12	30.09	23.12				
10	Фомина Елизавета	12.12	12.12	20.12	29.12	20.12	19.12	19.12	19.12	20.12	26.12			26.12	
11	Халил Зейн	12.12	12.12	—	—	26.12	26.12	25.12	26.12	25.12	26.12			26.12	
12	Альмушреки Осама Абду Али	10.10	10.10	17.10	17.10	21.11	21.11	21.12	21.12	21.12	21.12				
13	Саид Амир					30.12	30.12	30.12	30.12	30.12	31.12				
14	Уллах Вахаб														
15	Содан Крешимир														
16	Масаве Паскаль Диоскори	20.12	29.12	26.12	29.12	20.12	26.12	26.12	26.12	30.12	31.12				

выполнение лабораторнах работ, 6400 группа

0.1 Task 1

- Ivanchenko – miss archive info, β is wrong

- OBAMA Nicolas Serge – angles α, γ are not marked, actualli initial version was screewed

- Масаве Паскаль Диоскори – miss to draw α, γ

- Маратов Мирас – miss to draw α, γ

0.2 Task 2 Covariant and contravariant

- Ivanchenko – T_a covers whole interval, it's one possible solution, another – is make m_1 symmetric

- OBAMA Nicolas Serge – very good, queckly fixed picture, archive info mistakely has author as Filatenkov P.A.

- Маратов Мирас – miss archive info

- Седельников – in archive info autor is Alexandra (female)

- Барановский – miss archive info

- Масаве Паскаль Диоскори – at figure exchange please m1 and m2

0.3 Task 3 Boost converter

- Ivanchenko – catch formula 10.18 "А так же отвечаю на вопрос. Мне кажется что формула для оценки емкости конденсатора (10.18) не верна, поскольку как написано в тексте выше энергия запасенная в катушке переходит в энергию поля конденсатора, однако это происходит не за период как указано в формуле, а лишь за то время , за которое катушка разряжается."$C_{out} > \frac{i_{out}}{f \cdot \Delta U_{out}}$– this equation is an estimation. As to me I estimate by decay capacitor by R_{load} (with lianerization exponent).

- OBAMA Nicolas Serge – good, title pages was doubled, in archive Subject and Keywards were intendently missed, this is no good.

0.4 Task 4 Checking data for boost converter using graphs

- Ivanchenko – has archive info, Graphs are right and have his numbers.

- OBAMA Nicolas Serge – According to the student's list yours number is 6.(in the report picked up 12)

- Zadorozhnyuk – made an extra job: matlab Analytical Solution with consideration of initial conditions

0.5 Task 5 Down converter

- Ivanchenko – fixed archive info, report does not have code for the model. amplitude of riples in V_{out} is very small. ΔV_{out} should be roughly 10% from V_{out} as required. This lead to extra costs for capacitor. Inductors and capacitors are expencive.

- OBAMA Nicolas Serge – this interval [.0000501 - .0000520] instead of

  ```
  Vs 4 0 PWL(0 0 .0000501 0 .0000520 1 .0002 1) r=0
  ```

  could be made shorter

  ```
  Vs 4 0 PWL(0 0 .0000520 0 .00005201 1 .0002 1) r=0
  ```

- Sedelnikov – amplitude of riples should be equal roughly 10%

- Zain Khalil – archive info does not have author and subject, pictures have watermarks 'activate pirate software' , digits in reports have mixed locale: "1.2"and "1,2". Program model is inconsistent with graphs. `C1 3 0 0.23F` – 'u' sign was ommit here. R_{Load} is not present at all.

- Baranouski – archive info is absent: author, subject, keywords. amplitude of riples in V_{out} is very small. ΔV_{out} should be roughly 10% from V_{out} as required. This lead to extra costs for capacitor.

- Maratov – amplitude of riples in V_{out} is very small. ΔV_{out} should be roughly 10% from V_{out} as required. This lead to extra costs for capacitor.

- Sedelnikov – amplitude of both riples in V_{out} and riples in I_L are very small. amplitude of the riples should be roughly 10% from correspondent average values. Program model is absent in the report.

- Zadorozhnyuk – archive info in pdf file has ifrormation from 1-st task. Inspector should be different student not me. amplitude of riples in V_{out} is very small.

- Maratov – amplitude of both riples in V_{out} and riples in I_L are very small. amplitude of the riples should be roughly 10% from correspondent average values. Program model is absent in the report.

- Saeed Amir – used open software KiCad. This is good!

0.6 Lab №1 Research of characteristics of power semiconductor devices

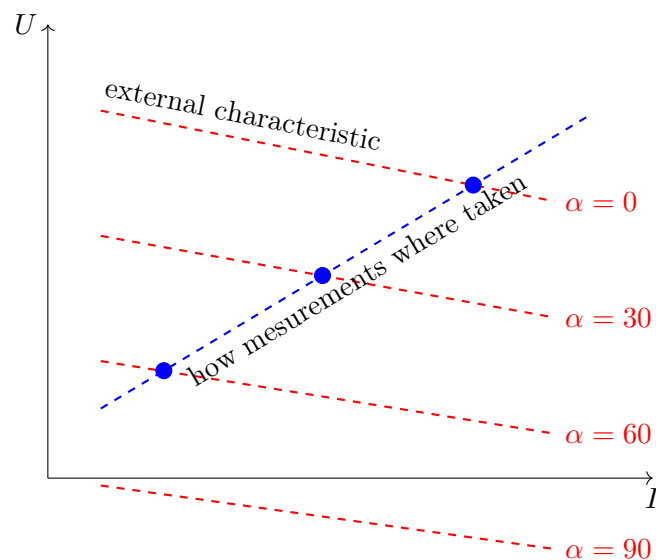`https://github.com/trot-t/2019-solar/blob/master/lab_en1.pdf`

- Sedelnicov – at page5 you are not reach point V_{zigzag} when current starts to inrcrease drammaticaly (the limit of the voltmeter V1 has 300V, or by the key below of the voltmeter V1 you could extend the limit to 600V) The mesurements shoud be when capacitor C_1 is switch off (bad conditions $\equiv$ classification conditions). But your mesurements were finished at 40×4V. This dramatical increase of current should be mesured in VAC for both directions (direct and backward). And VAC should be taken at $V_{control} = 0$. Minimum value of Vi_{zigzag} were current "folds"is used to figure out class of thyristor. Take into account since the voltage has a half-wave sinusoidal shape, conversion factor is π.

0.7 Lab №2 Research of unmanaged rectifiers and filters

`https://github.com/trot-t/2019-solar/blob/master/lab_en2.pdf`

0.8 Lab №4 Research of 3-phase half-wave thyristor converters

`https://github.com/trot-t/2019-solar/blob/master/lab_en4.pdf`

- OBAMA Nicolas Serge