

Student Contest 2021

Sponsored by the German Chapter of the IEEE EMC Society

Start date: 01.03.2021

End date: 30.11.2021

Eligible participants:

Students of Electrical Engineering and Information Technology or similar subjects with Bachelor degree or below

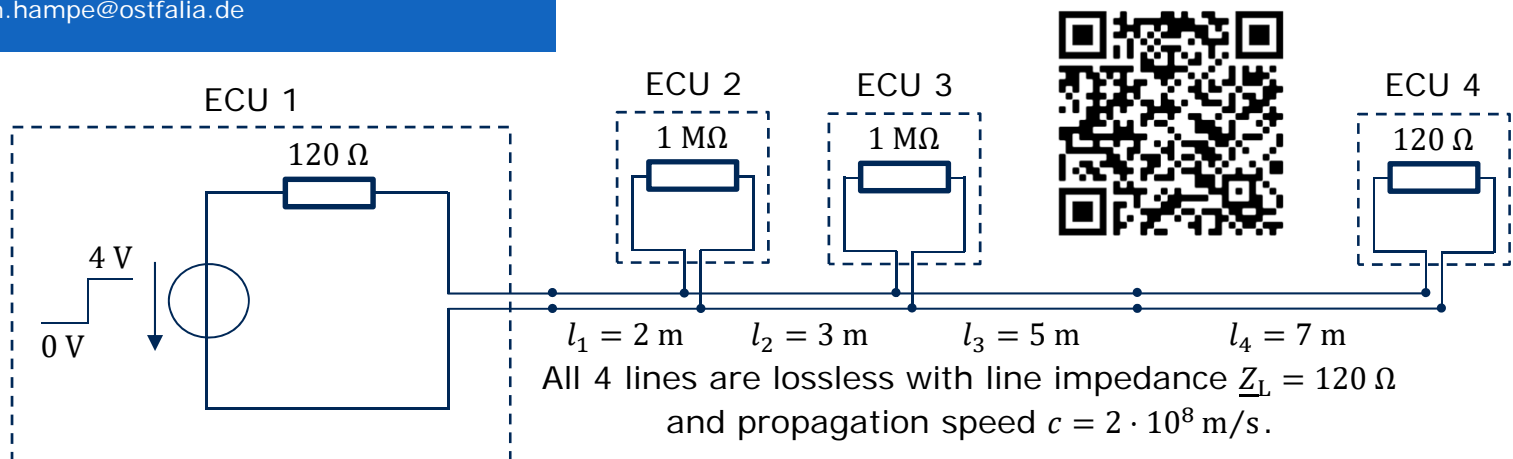
Contact:

Send the completed solution sheet via email to: Prof. Dr.-Ing. Matthias Hampe, m.hampe@ostfalia.de

Find the **WORST** network from a Signal Integrity perspective!

The best solution is simple...

The picture below shows the best possible network with 4 Electronic Control Units (ECUs) connected in series, the so called daisy chain.



Find the **WORST** network: precise task and rules.

1. Rearrange the network above in a way that the settle time of the new network is maximum.
2. A network is settled if all ECU signals have reached their static mean with tolerance $\pm 2 \%$.
3. All 4 ECUs must be connected to each other somehow.
4. All 4 lines may be used, but do not have to.
5. Any two ECUs must be separated by at least one line.
6. Any beginning and end of a line may be connected to any number of other lines.

What is there to win, besides fame and honor of course.

- 1st price: winner certificate and EMC book voucher 200 €, IEEE EMC Society Membership 1 year
- 2nd price: certificate and EMC book voucher 100 €
- 3rd price: certificate and EMC book voucher 50 €



Solution Sheet 2021

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Participants, up to 3 students:

Email address of contact person:

Settle time of your worst network:

Please insert a sketch of your worst network below.

How was the solution obtained and why is the proposed network particularly bad?