

# Schedule Synthesis for Switches in Time-Triggered Train Communication Networks

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## ***Abstract—Train connection networks***

### I. INTRODUCTION

This demo file is intended to serve as a “starter file” for IEEE conference papers produced under L<sup>A</sup>T<sub>E</sub>X using IEEE-tran.cls version 1.8b and later. I wish you the best of success.

mds

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#### A. Topology

The topology of train communication networks consist of two part, Ethernet Train Backbone Network(ETBN) and Ethernet Consist Network(ECN). ETBN is the carriage level network which connects each carriage of a train. ETBN consists of three layer switches with linear connection. The number of switches in ETBN can be up to 64. ECN is the network with devices in a carriage. In

1) *Subsubsection Heading Here:* Subsubsection text here.

### II. RELATED WORK

### III. SYSTEM MODEL

#### A. Dataflow

#### B. Topology

#### C. Schedule

#### D. Problem Formulation

### IV. GENETIC-BASED SCHEDULE SYNTHESIS ALGORITHM

#### A. Motivation

#### B. GSSA Description

#### C. Fitness Function

### V. EXPERIMENT

#### A. Configuration

#### B. Time Cost

#### C. Performance

#### D. Case Study

### VI. CONCLUSION

The conclusion goes here.

### ACKNOWLEDGMENT

The authors would like to thank...

## REFERENCES

- [1] H. Kopka and P. W. Daly, *A Guide to L<sup>A</sup>T<sub>E</sub>X*, 3rd ed. Harlow, England: Addison-Wesley, 1999.