

## Course „Control Systems 2“

## Exercise Sheet 14

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### Task 28:

Consider the observer-based state-feedback controller designed during Task 25b (see Exercise Sheet 11).

- a) State discrete-time state equations which approximate the designed continuous-time Luenberger observer (depending on the general sampling time  $T$ ) and draw the block diagram of the control-loop with digitally implemented state-space controller.
- b) Choose a suitable value for the sample time  $T$ .