TEST-1 Comments & Correction

Donnerstag, 27. September 2018 12:01

Status on students' side for Test-1 delivery via GitHub

GENERAL COMMENTS

- It is possible to use external source code (e.g. Matlab Demo code), but you need to mention the source!
  Plus analyse and explain the code you are taking, and comment the results.

- Check if the measurement set has already an associated time vector, and in case yes, use this one (instead of redefining a new one).
  Eventually you want to check if the given time vector has a regular resolution (time-step).

- Correlation exercise: short approach to calculate the distance.
  Take the xcorr output vector, and check the shift between the peak-position and the middle of the vector (shift in index count).
  Then multiply this shift with the time-step, and with the velocity of sound and you have the distance.
  Can you explain why this approach works?

- IMU-Exercise: combining the squares of the x/y/z sensors (and remove g) give you a better chance to identify movement, independent from position of phone inside your pocket.

Date	**Monday 15.Oktober 14h30**		Ex1	Ex2	Ex3	Overall
Link Submission Repo	**Status Remote Repo**					
https://github.com/sisy-en/test-1-assignment-schnesv1	OK	Uploaded 2 files same content? Took test_01	Why needed 2xfliplr() Why would get an error only for random signal? Is it not rather limit of numerical accuracy?	loaded several meas.mat, but used structures to differentiate them. Not clear idea of calc in lines: 86-88 B3: instead of "reparative" repetitive pattern Why define positve() fct? Same as abs()	Add clear all, close all Mising up variables from previous exercises Why only accel of Y-axis? Why diff?	OK 3xquestion Clarified Please check for simpler solution
https://github.com/sisy-en/test-1-assignment-DanielWyder	OK	MLX uploaded	1b) nice explanation fliplr() cool idea	Distance values: B1 good B3 not clear what you tried to show here…	Can not reproduce cause your measured data is not available Strange line: Period = steps / 30; %frequency of steps	OK 2xquestion
https://github.com/sisy-en/test-1-assignment-scherpas	OK	M scripts uploaded	Code ok, but miss short comment	Do not load several meas.mat cause partially same variables names. Typo: exercise Distance KO Suspect your t_long…	Can not reproduce cause your measured data is not available	REDO 2)
https://github.com/sisy-en/test-1-assignment-wyssale1	not created yet	Email Typo: exercise	Comment good, and several examples. But not always clear, e.g. x_tm_rand : not all contents mirrored	Distance value: B2 20% off Suspect your tvector, but did not find source yet	Ok What is the advantage of this duration vector?	OK 2xquestion
https://github.com/sisy-en/test-1-assignment-whzup	OK	MLX uploaded	1b) nice explanation fliplr() cool idea	Distance values: B1 good B3 sinus explanation not 100% clear. Why the longer tx…?	Some steps counted double, and others ignored. "Processing" and sum were not fully ok.	OK 2xquestion
https://github.com/sisy-en/test-1-assignment-dillivmc	OK	uploaded	1b) why most signals and not all signals? Had to add section breaks (to get single figures) Can you also decompose only noise?	Distance values: B1 good B2 (unit strange) B3 sinus pb explained	Nice comments about origin of code and processing steps. Also pro/cons observed. Plural(axis) = axes	OK Small 1xquestion
https://github.com/sisy-en/test-1-assignment-hagenrap	OK	uploaded	1b) nice explanation fliplr() cool idea	2a) was tstep not regular? 2b) Rather pb with sinus is: get smooth peak which repeats	Nice solution: with combined accel, findpeak & parametric threshold (evtl missing 3 steps :o)	OK Nice!
https://github.com/sisy-en/test-1-assignment-sebistark	OK	uploaded	1b) short & accurate explanation fliplr() cool idea	Distance values: B1 good B3 sinus pb explained	Original approach using roll! But your idea with autocorrelation + FFT is not 100% clear (e.g. why flip roll, need to redefine to?). The freq vector (Fs/N) is tricky to follow (but ok) Final result could be described (bit longer, e.g. how do you interpret your spectrum graphic?)	OK Nice! 1xquestion

https://github.com/sisy-en/test-1-assignment-apontant	not created yet		1b) miss explanation had to sweep lines to enable length(t)	2a) Distance is not correct. Error source: tstep for t_long Obs: had to copy meas-data 2b) missing	Can not reproduce cause your measured data is not available	REDO 2)
https://github.com/sisy-en/test-1-assignment-DeSchoel	not created yet					
https://github.com/sisy-en/test-1-assignment-rufensim	OK	---- (not yet)				
https://github.com/sisy-en/test-1-assignment-oehlemar	OK	Uploaded	Saw your email (about yes possible) Instead of isequal(), try max(p_t-p_t_recomp)	Start with clear all Distance values: B1 good B3 sinus pb saw symmetry, but missed periodicity	Can not reproduce cause your measured data is not available	2xquestions
https://github.com/sisy-en/test-1-assignment-abeggmir	OK	Uploaded	Interesting explanation, but actually no need to go thru Fourier	Distance values: B1 good B2 good) B3 sinus pb well explained +ex	Is your measurement data inside gait_ksp.mat Would it not be better to combine the 3 axis?	OK 1xquestion
https://github.com/sisy-en/test-1-assignment-rosenad1	OK	uploaded	The idea was to try out for random signal Miss comment	? What is the range value in line 15? Distance: B1 wrong suspect time_diff Miss comment sinus Typo: correlated	Original approach, working with azimuth. Why? Asked accel values. Loop idea to count steps not 100% clear.	REDO 3xquestion General: avoid hard-coded values.
https://github.com/sisy-en/test-1-assignment-baumgant	OK	Uploaded Typo: exercise	1b) jpg Question was rather: is this decomposition valid for any type of signal? The idea was to try out for random signal	Strange: why getting warning about mobiledev here? Distance: B1 wrong suspect time_diff Comment sinus 2 peaks: miss periodicity Typo: correlated	No need to add pkg_install in delivery. Measured data is enough. Original approach, working with roll. Why? Asked accel values. Comment explaining the loop idea. Believe the findpeak function could work out for your purpose here. But nice that you tried an own implementation.	REDO 2xquestion General: same as rosenad1
https://github.com/sisy-en/test-1-assignment-zuestal1	OK	Uploaded	1a) clear analysis 1b) ok, but no need to have deterministic + rdn.	Distance: B1 good But actually the max() fct does return index as well Apparently m_freq=1/t_step Is it right? Why not directly extract that from time vector? Sinus explanation nice	"The AC part consisting of the gravity" What do you think it is strange in this sentence? You could calculate the frequency over a shorter interval (e.g. every 5secs) instead of over the whole interval. But this has also disadvantages… Copied meas files to try other data sets. Why did you split x/y from z while combining accelerations?	OK 2x small question