

Operator training

Helping operators to learn shift operation by tracking experience and tasks carried out

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Shift operation at PITZ

Assessment of operator development: From rookie to expert

- > Measurements major pillar of research work at PITZ
- > Lot of (working) time on shift duty
- > Shift leader = experienced operator
- > Operator start without prior PITZ-teaching
 - > Zoom teachings for all in addition
 - > Learning-by-doing approach to teaching people

All are
'on the same page'

Often performed
procedures taught well


Learning-by-doing approach

- > Overview of measurement procedures (rather) lacking
- > No track of OP's progress
 - > Feedback for group leader/shift leaders missing
 - > Feedback for OP also missing!

Introducing: PITZ Operator Training Card

List of milestones to be reached, allows judgement all ways

- > Introduction of **PITZ Operator Training Card**
 - > List of important procedures & measurements
 - > Progress is kept
 - > Fill in date & shift when procedure was performed for first time etc.
- > Emphasis on **performing measurement**
 - > Learning-by-doing approach
 - > Therefore: Let OP's do the work!
- > Explanation of form:
 - > **First time**: OP doing measurement, shift leader walking OP through procedure
 - > **80% independently**: One or two comments from shift leader during measurement
 - > **Fully independent**: OP does it alone/ready for shift lead



PITZ Operator Training Card

Name: _____ Date of first shift: _____

Measurement/ Procedure	First time	80% independently	Fully independently
Z.Z. & Betriebsbuch			
Klystron ramping			
SMAC & LILI			
Dark current measurement			
VC2 image			
Laser BBA			
Charge measurement			
Emission curve			
QE map & M5/6			
OMA – LEDA			
OMA – HEDA1			
Bunch length measurement			
Fastscan			

HELMHOLTZ RESEARCH FOR GRAND CHALLENGES

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