

Introduction to Laboratory and Safety

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<http://wireless.ictp.it>



The “Radio Unit” Laboratory (ICTP-ARPL) at GGH

- (almost) all lectures and hands-on sessions will take place in this lab



- the lab will be open 9:00-12:30, 14:00-19:00 and in the evenings

- one or more lab instructors will always be present in the lab
- please do not ask the receptionist to open the lab at other times and without any instructor being present

- please feel free to organize your own experiments and exercises on wireless, networking, Linux, etc. in the free time, possibly in groups

- please keep the lab clean



- ~30 people in ~90m² means that we all should try to:
 - keep the noise level low
 - limit our own brownian motion ;-)





collaboration = to work together

(photo: laboratory work, 2004)



to work together = 50% listen
+
50% talk

(photo: laboratory work, 2004)



to work together = to have fun!

(photo: laboratory work, 2004)

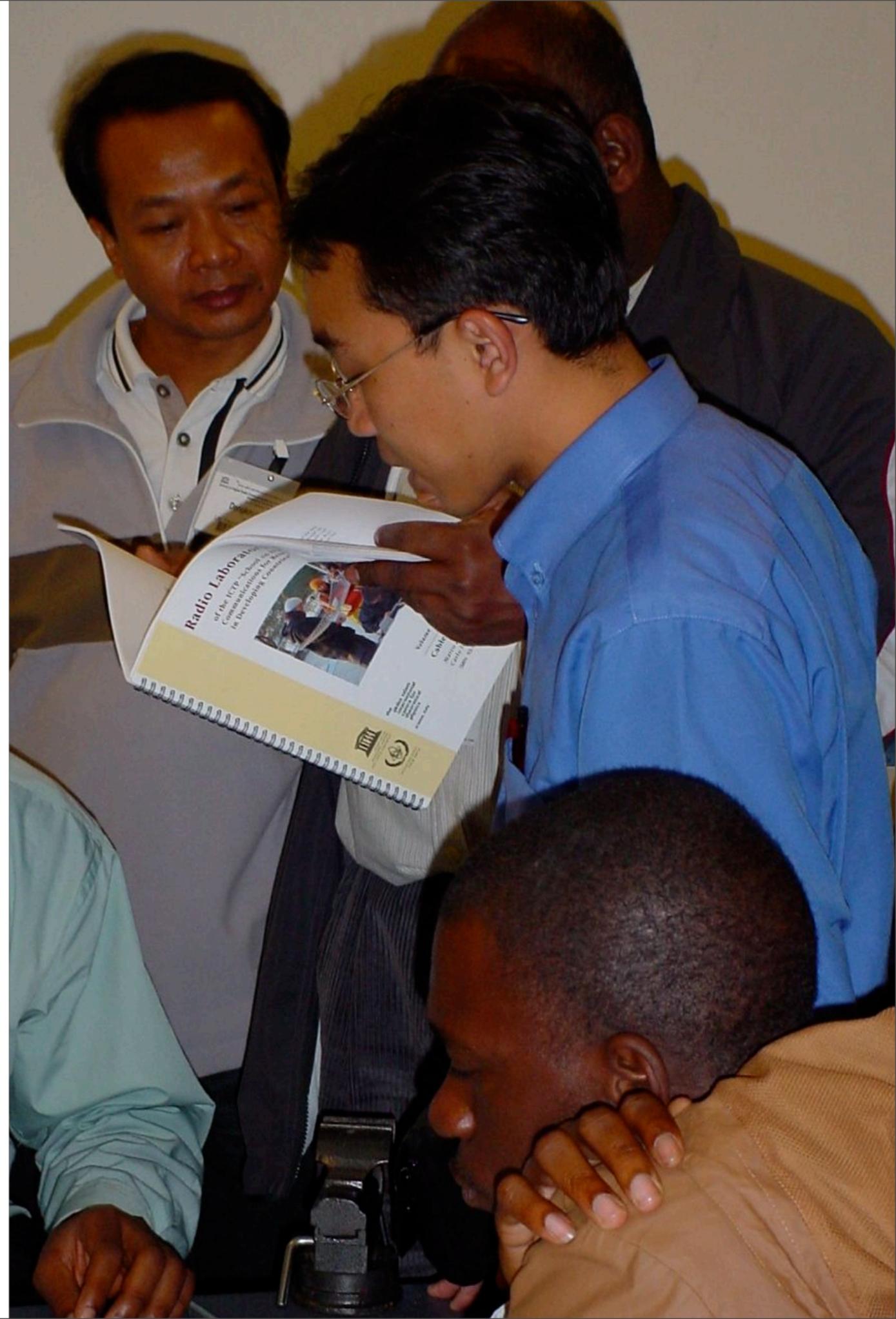
Working in the lab

- activities in the lab will be performed working in GROUPS
- three groups will be created with 9 + 9 + 8 participants (= 26)
- WLANs will be planned and deployed by the groups, as part of a friendly and collaborative “competition for the best group”
- each group is responsible for its own set of tools, computers, radio devices, etc.



lab's books

- each participant will receive two books: one on “Antennas for WiFi” and a very recent one (2006!) on “Wireless Networking for Developing Countries”.
- some of the book authors are around you here, as instructors: please feel free to give them your feedback about the books!
- write your name on your copies of the books and remember to bring them in the lab every day!



Safety rules in the lab



Do not use or move
electronic equipment
until instructed on
how to do it properly!

involuntary misuse or a wrong
procedure can lead to a
permanent damage of the
instrument or device

in case of doubt, please call an
instructor for assistance



Report all dangerous conditions of instruments/devices to a lab instructor!

they are here to help you and to prevent any possible source of injury and damage



If a piece of equipment does not turn on or stops functioning properly, report it to your lab instructor immediately!

He will try to destroy it for you! ;-)

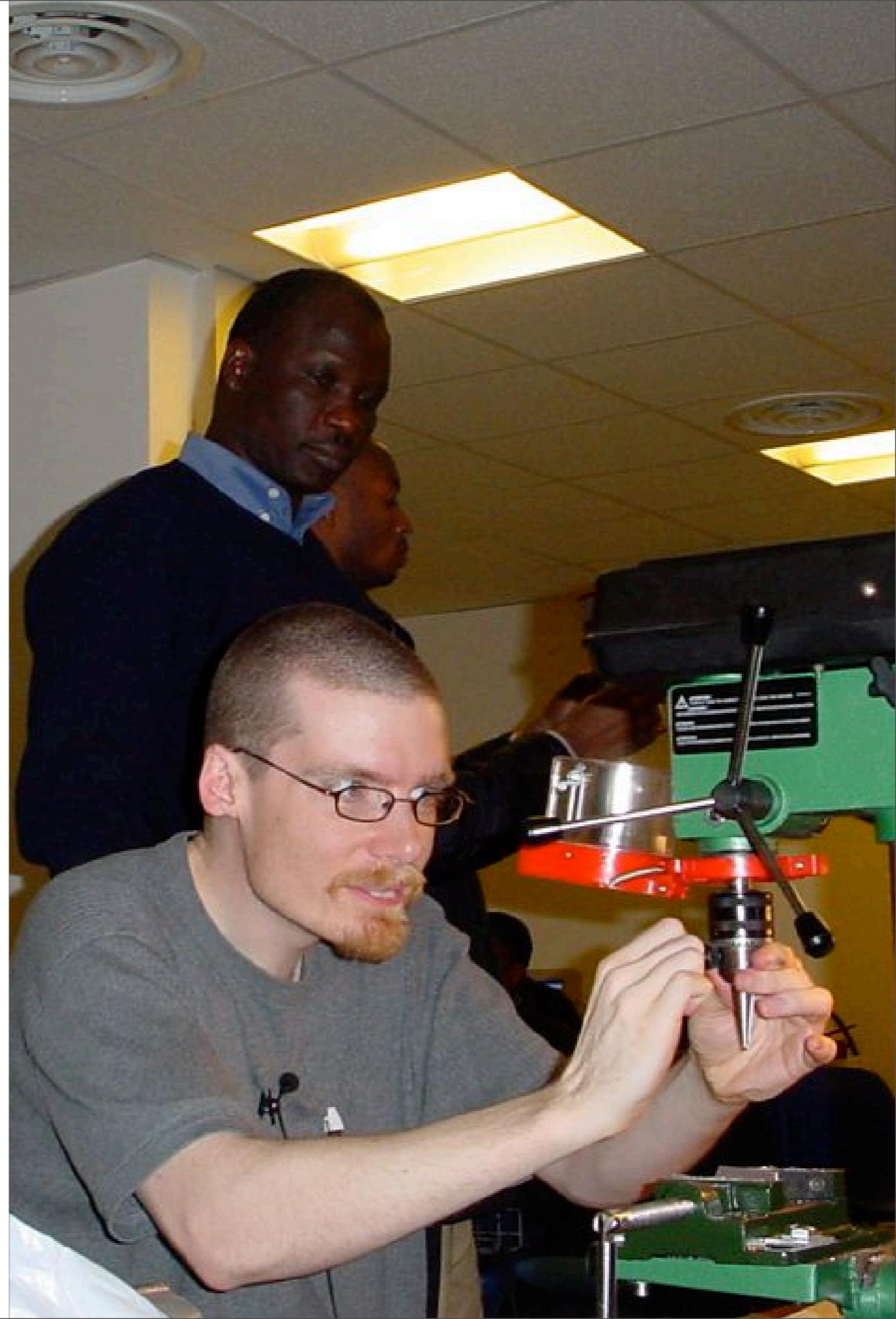
Jokes apart, please keep these safety rules (together with common sense) at the first place when you are working in the lab!



SO PLEASE PAY
ATTENTION!!!

There are potentially
dangerous objects!

We will use scissors, cutters,
hammers, pliers, soldering irons,
drills, electronic devices and
instrument, etc.



If you are not sure,
always adopt a safe
setting for the
instruments!

for example:

low power output (transmitter)

max input attenuation (receiver)

widest range (measuring devices)

in case of doubt, always ask!



Special precautions should be adopted when working on the roof (or on a mast)!

There is always a danger to fall down or to hurt somebody else (for example, dropping heavy tools on his/her head!)

You will be given more specific instruction before field activities.





Thank you for your attention!