

INSTRUMENTAL EQUIPMENT OF THE LABORATORY
BY THE END OF 1975

1. Instrumentation for speech analysis

- 2 Sona-Graphs, Kay-Electric, type 6061 A
- 2 amplitude display/scale magnifier units,
Kay-Electric, type 6076 A
- 1 contour display unit, Kay-Electric, type 6070 A
- 1 fundamental frequency extractor ("Trans Pitchmeter")
- 1 intensity meter (dual channel, with active variable
highpass and lowpass filters)
- 1 electro aerometer (dual channel)
- 2 air-pressure manometers, Simonsen & Weel, type HB 66
(modified)
- 1 photo-electric glottograph
- 1 Fabre Glottograph
- 1 palatoscope with complete outfit for palatography
- 1 segmentator, model IPO (Eindhoven)
- 1 Meyer-Schneider pitchmeter
- 1 stroboscope, Philips, type PR 9103
- 1 segmentator, type PT
- 1 electro-aerometer, four channel, type AM 508/4
- 1 audio frequency filter, type 445
- 1 vocal cords fiberscope, Olympus, type VF

2. Instrumentation for speech synthesis

- 1 formant-coded speech synthesizer
- 1 provisional vowel synthesizer
- 1 voice-source generator
- 1 larynx vibrator with power supply

3. Filters

- 1 LC highpass filter (with stepwise variation of cut-off frequency)
- 1 active RC lowpass filter

4. Instrumentation for visual recordings

- 1 mingograph, Elema 42 (4 channels)
- 1 mingograph, Elema 800 (8 channels)
- 1 kymograph (with electro-motor)
- 1 automatic frequency response and spectrum recorder, Brüel & Kjær, type 3332
- 1 oscilloscope, Telequipment (single beam)
- 1 oscilloscope, Tektronix, type 502 A
- 1 oscilloscope, Solartron, type CD 1400 (dual beam)
- 2 oscilloscopes, Tektronix, type 564 storage
- 1 dual-trace amplifier, Tektronix, type 3A1
- 1 four-trace amplifier, Tektronix, type 3A74
- 1 dual-trace differential amplifier, Tektronix, type 3A3
- 1 time-base, Tektronix, type 3B3
- 1 time-base, Tektronix, type 2B67
- 1 oscilloscope, Tektronix, type 465
- 1 oscilloscope, Tektronix, type 5115
- 2 dual-trace amplifiers, Tektronix, type 5A18N
- 1 time-base, Tektronix, type 5B10N
- 1 mingograph, Siemens-Elema, type 803

5. Tape recorders

- 1 instrumentation recorder, Lyrec, type TR 86
- 1 professional recorder, Lyrec, type TR 42
- 2 professional recorders, Lyrec, type TR 20
- 3 semi-professional recorders, Revox, type G 36
- 7 semi-professional recorders, Revox, type A 77
- 1 professional recorder, Revox, type A 700

- 1 portable semi-professional recorder, Uher, type 4000
- 4 recorders, Tandberg, type 92 SL
- 1 recorder, Tandberg, type 7

6. Gramophones

- 2 gramophones, Delphon (mono, Ortofon pick-up)

7. Microphones

- 1 microphone, Neuman, type KM 56
- 1 dynamic microphone, Sennheiser, type MD 21
- 2 crystal microphones, of different brands
- 2 microphones, Altec
- 1 1" microphone, Brüel & Kjær, type 4131/32
- 1 1/4" microphone, Brüel & Kjær, type 4135/36
- 1 larynx microphone
- 1 1" microphone, Brüel & Kjær, type 4145
- 1 microphone—power supply, Brüel & Kjær, type 2807
- 1 microphone—power supply, Telefunken

8. Amplifiers

- 1 microphone amplifier, Brüel & Kjær, type 2603
- 1 laboratory amplifier (mono/stereo, with matching for different impedances)
- 1 power amplifier, Brüel & Kjær, type 2706
- 1 microphone pre-amplifier, Brüel & Kjær, type 2627
- 1 measuring amplifier, Brüel & Kjær, type 2607 A

9. Loudspeakers/headphones

- 7 different loudspeaker systems
- 5 headphones, AKG, type K 58
- 3 loudspeakers, Beovox, type 2600
- 10 headphones, Sennheiser, type 414
- 4 headphones, Sennheiser, type 424

10. General-purpose electronic instrumentation

- 1 oscillator, Hewlett & Packard, type CD 200
- 1 function generator, Wavetec VGC III (0.003 c/s - 1 Mc/S)
- 1 frequency counter, Rochar, type A 1360 CH (5 digits)
- 2 vacuum-tube voltmeters, Brüel & Kjær, type 2409
- 1 vacuum-tube voltmeter, Heathkit, type V-7A
- 1 vacuum-tube voltmeter, Radiometer, type RV 23b
- 1 DC millivoltmeter, Danameter, type 205
- 1 DC nanoammeter, Danameter, type 206
- 1 universal meter, Philips, type P 817
- 1 transistor tester, Taylor, model 44
- 1 Piston-phone, Brüel & Kjær, type 4220
- 1 component bridge C/L/R, Wayne Kerr, type B 522
- 1 AC automatic voltage stabilizer, Claude Lyons, type BTR-5F
- 4 resistance decades, Danbridge, type DR 4
- 1 condenser decade, Danbridge, type DK 4 AV
- 6 stabilized rectifiers
- 1 multi-generator, Exact, type 126 VCF
- 2 stabilized rectifiers, Danica, type TPS 1d
- 1 stabilized rectifier, Danica, type TPS 3c
- 1 impulse precision sound level meter, Brüel & Kjær, type 2204
- 1 attenuator set, Hewlett Packard, type 350 D
- 1 band-pass filter set, Brüel & Kjær, type 1615
- 1 digital multimeter, Philips, type PM 2422
- 1 timer counter, Advance, type SC3
- 1 oscillator, Advance, type J2E
- 1 X-Y recorder, Hewlett & Packard, type 7044 A
- 1 noise generator, Brüel & Kjær, type 1405

Additional oscillators, rectifiers, etc., for special purposes.

11. Outfit for photography

- 1 Minolta camera SR-1 (with various accessories)
- 1 complete outfit for reproduction (including 1 Liesegang UNI-RAX with frame)
- 1 Telford oscilloscope camera, type "A" (polaroid)

12. Equipment for EDP

- A computer, Digital, PDP8/E, 8k
- A₁ arithmetic unit, Digital, type KE 8-E
- A₂ bootstrap loader, Digital, type MR 8-EC
- A₃ add-on memory system 24k, Fabri-Tek, type 8/E
- B dectape, Digital, type TD8-EM
- B₁ tape reader, GNT, type 24
- B₂ tape punch, GNT, type 34
- B₃ decwriter, Digital, type LA 30P
- B₄ teletype, Teletype, type ASR 33
- B₅ display terminal, Tektronix, type 4014-1
- B₆ real time clock, Digital, type DK8-EP
- B₇ a/d converter, Digital, type AB8-EA
- B₈ d/a converter, type PD

13. Projectors

- 1 Leitz projector for slides
- 1 Voigtländer Perkeo Automat - J 150
- 1 16 m/m tone film projector, Bell & Howell, "Filmsound 644"
- 1 projector, Leitz, type Pradovit color 250