

**ECE 6310 Introduction to Computer Vision**  
**Lab #6 Report– Camera Calibration**

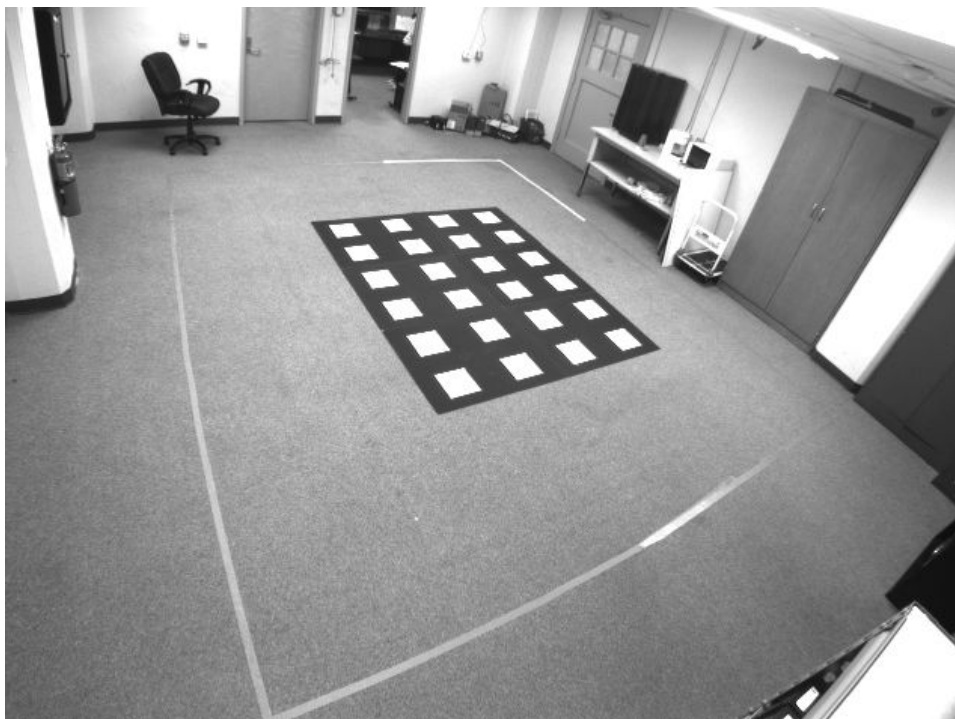
This report consists of screenshots of the experiment conducted.

**Part 1: 6 cameras calibration:**

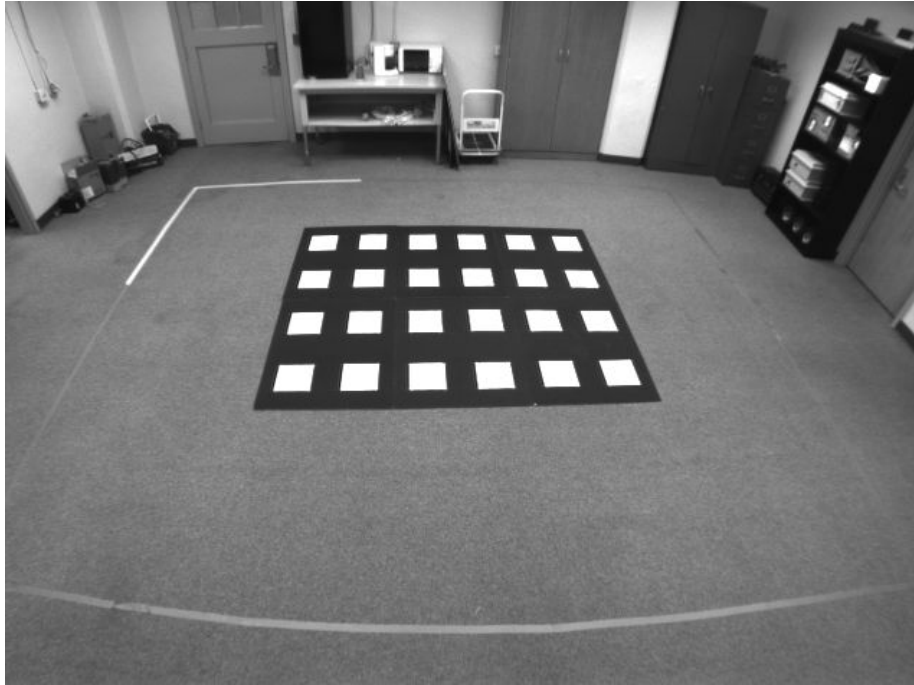
**X, Y, Z camera positions**

Axis/Camera	X (mm)	Y (mm)	Z (mm)	Focal Length (mm)	Err (mm)
Camera_0	-1964	3169	2293	8.32	0.497
Camera_1	1307	3674	2283	8.31	0.641
Camera_2	4286	3509	2193	10.86	0.562
Camera_3	4058	-1756	2225	11.02	0.633
Camera_4	1009	-1705	2180	7.94	0.544
Camera_5	-2054	-1584	2198	8.09	0.392

**CallImage\_0**



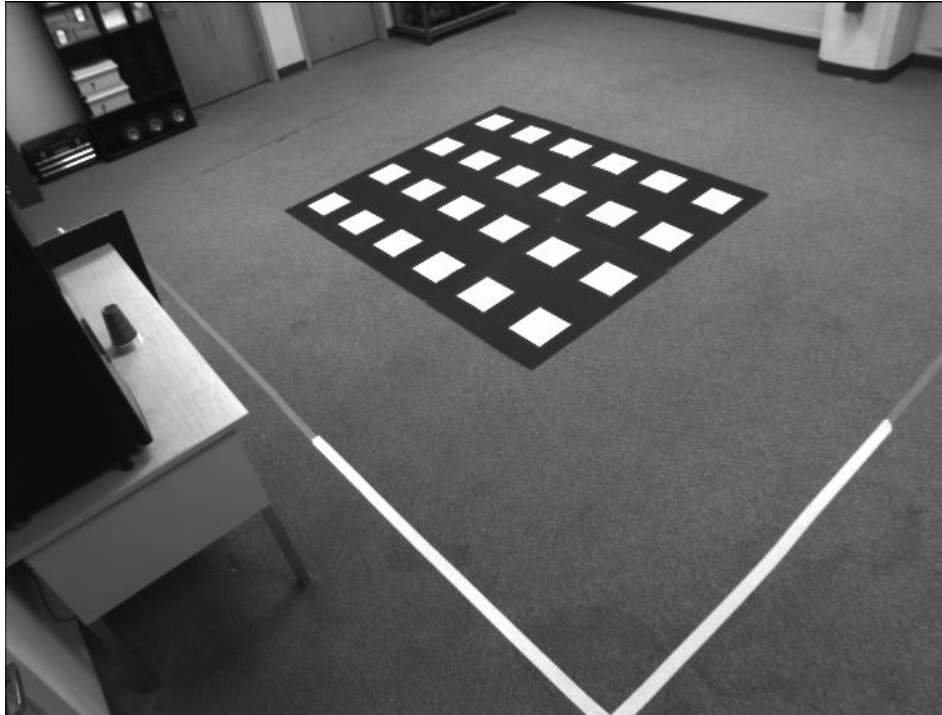
CallImage\_1



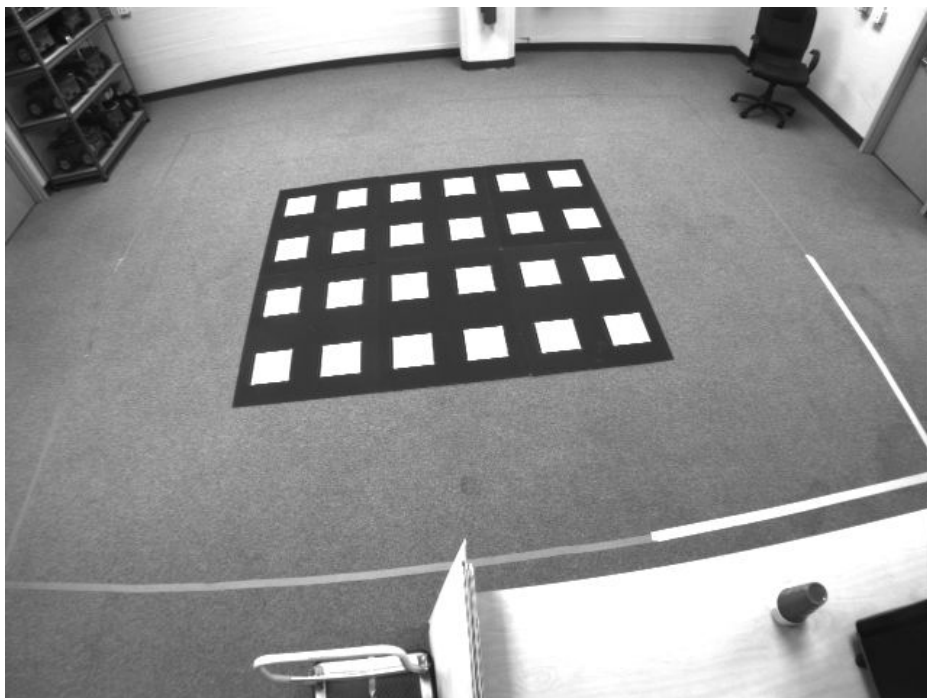
CallImage\_2



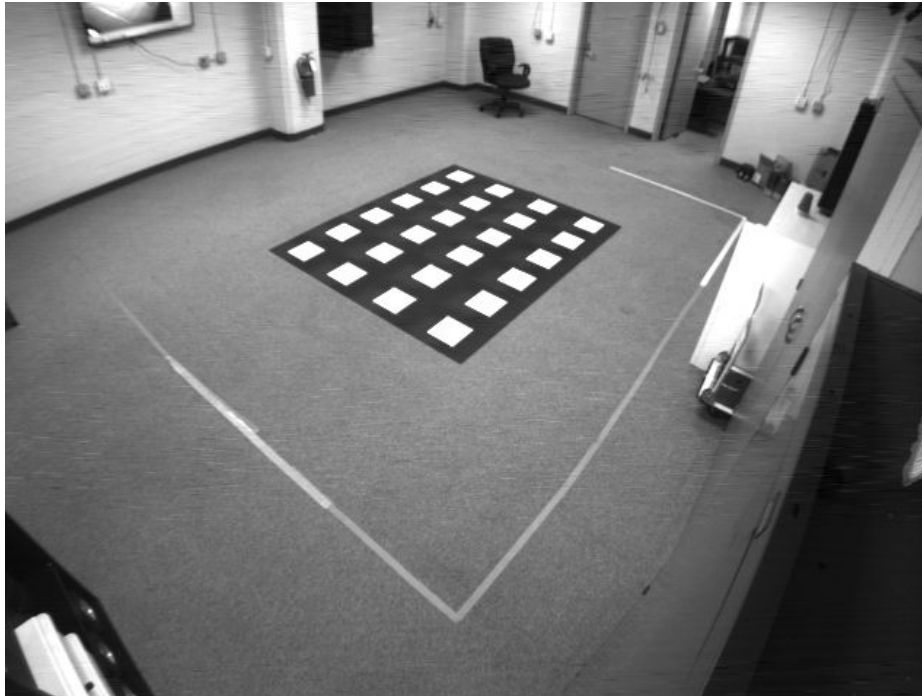
CallImage\_3



CallImage\_4



CallImage\_5



## Part 2: Tracking boundary using polygons:

### Floor\_0

110 111 142 111 174 109 212 106 244 106 268 104 303 103 329 103 361 127 389 146  
 420 169 450 192 473 214 506 238 527 256 547 276 524 295 498 316 462 339 420 363  
 382 383 357 399 313 419 283 431 253 447 217 461 179 478 164 440 153 398 145 353  
 134 312 127 275 121 242 116 203 114 173 110 145 107 125 111 111 107 111

### Floor\_1

136 130 176 129 222 128 271 125 314 127 355 127 397 128 445 131 461 131 491 172  
 510 202 533 242 556 265 574 299 595 336 611 370 628 407 586 417 541 425 490 429  
 446 433 404 440 359 441 304 441 261 440 209 438 158 433 101 427 58 420 9 410 2 344  
 17 310 36 276 57 244 74 216 93 189 114 156 131 135 131 135

### Floor\_2

289 63 335 62 379 60 424 62 469 62 515 61 569 61 595 57 581 100 566 139 550 177 530  
 225 511 266 489 313 457 373 434 421 407 474 354 457 304 436 255 415 207 394 158  
 371 121 352 82 332 36 311 9 298 5 286 33 263 66 238 97 213 121 188 158 163 191 139  
 219 114 250 88 279 68 280 65

**Floor\_3**

81 134 120 120 165 100 197 84 233 69 272 53 309 40 345 21 390 33 431 43 480 59 527  
 69 592 85 633 98 638 234 609 268 586 299 549 338 521 373 487 410 459 438 437 466  
 399 477 365 446 325 406 286 369 239 322 208 291 172 254 139 221 111 191 99 181 83  
 136 83 136

**Floor\_4**

125 87 178 81 248 74 305 66 371 62 429 60 465 60 493 91 516 124 538 156 574 204 607  
 252 635 298 635 326 591 338 547 348 502 360 447 365 394 374 342 382 297 387 236  
 393 180 398 123 401 70 401 32 399 4 398 6 362 20 325 34 288 48 254 58 216 72 185 84  
 157 100 127 113 104 124 86

**Floor\_5**

50 174 94 156 139 135 187 120 231 103 270 89 308 77 341 90 379 101 411 112 458 128  
 492 142 510 149 490 183 462 222 443 252 418 290 399 318 374 351 356 374 328 406  
 313 421 286 400 248 369 222 343 192 317 156 286 124 255 97 225 70 194 53 179 52  
 179

**Part 3: Tracking objects using occmap.exe:**