



Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

Module 00: CS31003: Compilers & CS39003: Compilers Laboratory

Course Information

Pralay Mitra
Partha Pratim Das

Department of Computer Science and Engineering
Indian Institute of Technology, Kharagpur

pralay@cse.iitkgp.ac.in
ppd@cse.iitkgp.ac.in

August 10, 2021



Course Material

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

- Slides will be uploaded to CSE Moodle Server:
<https://moodlecse.iitkgp.ac.in/moodle>
- Books:
 - Compilers: Principles, Techniques, and Tools (2nd Edition) by A.V. Aho, Monica S Lam, R. Sethi, Jeffrey D. Ullman (Pearson / Addison-Wesley)
 - Flex and Bison by John Levine (O'Reilly)
 - Compiler Design in C by Allen Holub
 - Advanced Compiler Design and Implementation by Steven Muchnick
- Video:
 - Compiler Design by Y N Srikant, NPTEL



About the Compilers Theory Course

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

- Timetable
 - Slot B3: MON (11:00–11:55), TUE (08:00–09:55)
- Section Allocation
 - Section 1 (PPD)
 - Section 2 (Pralay)
- Classes:
 - Online on Microsoft Teams
 - ▷ Login to MS Teams using your IIT KGP email id
 - ▷ Join Compilers21A with code: 7j74a2l
 - Post-delivery videos on YouTube
- Evaluation
 - 3 Class Tests: 75%
 - 1 Assignment & 25%
- Attendance: Compulsory



About the Compilers Laboratory Course

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

- Slot N: THR (14:00–16:55): Online from 14:30
- Section Allocation
 - Section 1 (PPD)
 - Section 2 (PM)
- Lecture on Lab: Online with prior announcement
- Evaluation
 - Assignments: 70%
 - Two Quizzes: 30%
- Attendance: Compulsory during lecture hours
- Zero tolerance to plagiarized submissions



The Coordinating Platforms

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

- Moodle will be used for the course. Register on Moodle immediately to:
 - CS30003 _A21-22 Compilers: Compilers (Password: compilers21A)
 - CS39003_21-22A Compilers Laboratory: Compilers Laboratory (Password: compilers21A)
- All assignments / material will be uploaded to Moodle
- All announcements will be made on Moodle. Keep checking
- ERP will also be used at times for communication. Make sure that your registered email at ERP works



The Submissions

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

- The submissions for assignments will be accepted *only* through Moodle up to the specified deadline.
- No submission through mail or directly to the TA will be entertained
- Late submissions for up to 3 days are allowed on request with 10% penalty



Theory Assignments

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

- Assignments #1: Individual
- Language: C++
- Platform: Unix
- Tools: GNU – Flex, Bison, GCC
- Target Language: tinyC
- Target Architecture: x86-64



Laboratory Assignments

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

- Assignments #1 and #2, are individual
- Assignments #3, #4, #5 and #6 are in groups of two
- Every student / group will be assigned a TA. This may change with assignments
- Language: C++
- Platform: Unix
- Tools: GNU – Flex, Bison, GCC
- Target Language: tinyC
- Target Architecture: x86-64



List of Theory and Laboratory Assignments

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

Sl. No.	Description	Assign Date	Submit Date	Weeks
#1	Annotating Assembly	12-Aug-21	25-Aug-21	2
#2	Creating Library	26-Aug-21	02-Sep-21	1
#3	Lexer for tinyC	02-Sep-21	08-Sep-21	1
	<i>Class Test 1 & Lab Quiz 1</i>	09-Sep-21		
#4	Parser for tinyC	09-Sep-21	22-Sep-21	2
#5	TAC Code Generator for tinyC	23-Sep-21	20-Oct-21	3
	<i>Class Test 2</i>	07-Oct-21		
	<i>Autumn Break</i>	12-Oct-21	17-Oct-21	
#6	x86 Code Generator for tinyC	21-Oct-21	10-Nov-21	3
	<i>Class Test 3 & Lab Quiz 2</i>	17-Nov-21		
#7	<i>Theory: Optimization</i>	21-Oct-21	10-Nov-21	3

Assignments are indicative and are likely to change before actually being assigned. The dates are tentative.



Holidays

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

Independence Day	15.08.2021	Sunday	01
Muharram	19.08.2021	Thursday	01
Mahatma Gandhi's Birthday	02.10.2021	Saturday	01
Dussehra (Maha Saptami) (Additional)	12.10.2021	Tuesday	01
Dussehra (Maha Astami) (Additional)	13.10.2021	Wednesday	01
Dussehra (Maha Nabami) (Additional)	14.10.2021	Thursday	01
Dussehra (Vijaya Dashami)	15.10.2021	Friday	01
Prophet Mohammad' Birthday (Id-E-Milad)	19.10.2021	Tuesday	01
Diwali (Deepavali)	04.11.2021	Thursday	01
Guru Nanak's Birthday	19.11.2021	Friday	01



TAs and Teachers

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

Sl.#	Name	Email	Mobile
1	Abhishek Kumar	merealone2516@gmail.com abhishek16@kgpian.iitkgp.ac.in	7018763100
2	Saptami Ghosh	ghoshsaptami@gmail.com sghosh@iitkgp.ac.in	9477647034
3	Srijoni Majumdar	majumdar.srijoni@gmail.com	9674474267
4	Soumen Paul	soumenpaul2019@iitkgp.ac.in soumenpaul165@gmail.com	7980054589
5	Purnima Gautam	purnimagautam94@gmail.com	7004288151
6	Venktesh Shrimant Lagaskar	vslagaskar@iitkgp.ac.in vslagaskar@gmail.com	9146659423
7	Rohit (dual-degree)	rohit@iitkgp.ac.in rohitsanjay64@gmail.com	9304016011
8	Karanam Tejendhar	karanamtejendhar1@iitkgp.ac.in karanamtejendhar@gmail.com	8919177559
9	Abhik Naskar	naskarabhik98@iitkgp.ac.in naskarabhik98@gmail.com	8617091413 8145137347
10	Ankit Saurabh	ankit4471@iitkgp.ac.in ankit4471@gmail.com	9783950919
11	Pralay Mitra	pralay@cse.iitkgp.ac.in	9734373565
12	Partha Pratim Das	ppd@cse.iitkgp.ac.in	9830030880



Important Dates

Module 00

Pralay Mitra & P
P Das

Course
Information

Material

Theory

Laboratory

Platforms

Assignments and
Tests

Holidays

TAs and Teachers

Class Test 1 & Lab Quiz 1 09-Sep-21, 2–5 pm

Class Test 2 07-Oct-21, 2–5 pm

Class Test 3 & Lab Quiz 2 18-Nov-21, 2–5 pm